

DISASTER PREPAREDNESS TOKYO

2023
Revised
Version



STEP 2

Get deeper
knowledge.

Let's get prepared. Do everything to protect yourself.

A disaster can occur at any time, such as an earthquake directly hitting Tokyo, wind and flood damage, or a volcanic eruption. Are you prepared?

Let's learn and get prepared.

Tokyo has been hit by natural disasters such as large earthquakes and volcanic eruptions many times in the past.

Following the publication of “Disaster Preparedness Tokyo” in 2015 and “Disaster Readiness Guide” in 2018, there was the damage caused by Typhoon Hagibis in 2019 and then the Covid-19 pandemic.

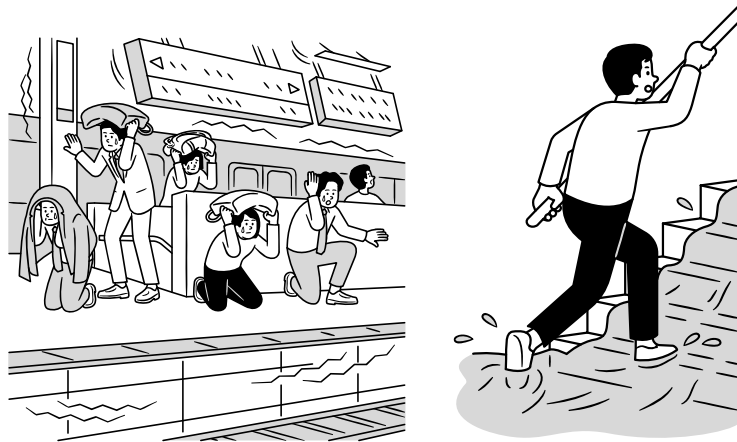
This situation of disasters being likely to occur at any time is going to continue, including wind and flood damage becoming more severe and more frequent due to the effects of climate change, an earthquake directly hitting Tokyo, a large-scale volcanic eruption, and infectious diseases, as well as the risk of multiple disasters occurring together.

Do everything to protect yourself.

In order to properly prepare for these risks, it is important for each Tokyo resident to learn the latest knowledge about various disasters and their countermeasures, and to share them with the community in order to raise awareness of disaster preparedness.

Please use the 100th anniversary of the Great Kanto Earthquake as an opportunity to further deepen your knowledge of disaster preparedness and become more fully prepared for disasters.

What if an Earthquake Directly Hits Tokyo or a Nankai Trough Mega Earthquake Occurs?



The Great Kanto Earthquake that struck in 1923 caused significant damage to the Tokyo metropolitan area. The earthquake is estimated to have had a magnitude of 7.9, and many buildings in Tokyo were destroyed by fire.

Now, 100 years later, more large-scale earthquakes are predicted to occur.

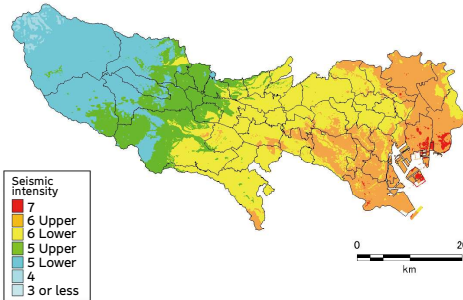
These are an “earthquake directly hitting Tokyo” and the “Nankai Trough mega earthquake.”

If either of these earthquakes hits the large population of Tokyo, buildings with low seismic resistance will collapse. Fires will also break out. The city will be filled with many victims and people who are unable to return home. It is predicted that lifelines will be damaged and electricity, gas, water, and sewerage services will be unavailable for some time. Disruptions to communications such as telephone and internet services are also predicted. If the damage is extensive, the time required for recovery and reconstruction could be very long.

The life we take for granted will change completely from the day such an earthquake occurs.

New Damage Predictions (1) Earthquake Directly Hitting Tokyo (Southern Central Tokyo Earthquake)

The southern central Tokyo earthquake refers to a magnitude 7-level earthquake that is expected to cause maximum damage to Tokyo. Approximately 60% of the 23-wards area is expected to experience a seismic intensity of 6 or higher.



Predicted damage in Tokyo

**Buildings
damaged**
194,431

From shaking: 82,199
From fires: 112,232

Deaths
6,148

From shaking: 3,666
From fires: 2,482

Injuries
93,435*

From shaking: 83,489
From fires: 9,947

**Stranded
commuters
and others**
**Approx.
4.53 million**

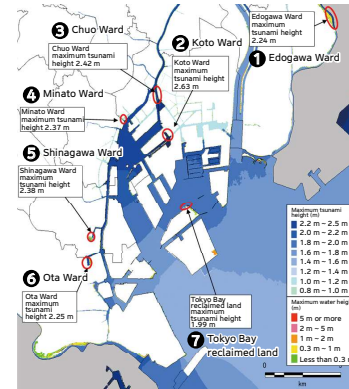
Evacuees
**Approx.
2.99 million**

* The total does not add up due to rounding.

Source: Edited and created based on Tokyo Metropolitan Government "New Damage Predictions for Tokyo: Predicted Damage to Tokyo from an Earthquake Directly Hitting Tokyo" (May 2022)

New Damage Predictions (2) Nankai Trough Mega Earthquake

The Nankai Trough mega earthquake refers to the earthquake that is predicted to occur with an epicenter in the Nankai Trough, which stretches from the Tokai region to Kyushu. In Tokyo, there are concerns about the effects of long-period ground motion, and it is expected that a tsunami will hit Tokyo's islands in a short period of time.



Tsunami damage: Maximum tsunami height (time until arrival)

Tokyo Bay Area

- ① Edogawa Ward: 2.24 m
- ② Koto Ward: 2.63 m
- ③ Chuo Ward: 2.42 m
- ④ Minato Ward: 2.37 m
- ⑤ Shinagawa Ward: 2.38 m
- ⑥ Ota Ward: 2.25 m
- ⑦ Tokyo Bay reclaimed land: 1.99 m

Islands

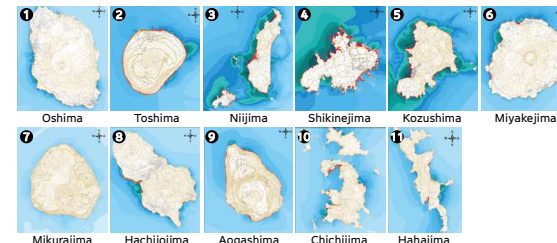
- ⑧ Oshima: Approx. 16 m (approx. 23 min.)
- ⑨ Toshima: Approx. 17 m (approx. 19 min.)
- ⑩ Niijima: Approx. 27 m (approx. 17 min.)
- ⑪ Shikinejima: Approx. 28 m (approx. 14 min.)
- ⑫ Kozushima: Approx. 27 m (approx. 17 min.)
- ⑬ Miyakejima: Approx. 16 m (approx. 25 min.)
- ⑭ Mikurajima: Approx. 7 m (approx. 30 min.)
- ⑮ Hachijojima: Approx. 17 m (approx. 32 min.)
- ⑯ Aogashima: Approx. 14 m (approx. 36 min.)
- ⑰ Chichijima: Approx. 15 m (approx. 126 min.)
- ⑱ Hahajima: Approx. 16 m (approx. 108 min.)

Predicted damage in Tokyo

Maximum tsunami height:
approx. 28 m (Shikinejima)

Deaths: 952

Buildings damaged: 1,258



Source: Edited and created based on Tokyo Metropolitan Government "New Damage Predictions for Tokyo: Predicted Damage to Tokyo from an Earthquake Directly Hitting Tokyo" (May 2022)

What Will Happen if a Nankai Trough Mega Earthquake Occurs

Islands region

In the islands region, Tsunami waves exceeding 20 meters may reach some islands in as little as ten minutes. In the Sanriku region, which is often hit by tsunamis, there is a saying that goes, “Tsunami Tendenko,” which means that when a tsunami occurs, it is important for every person to escape to higher ground, even if they are not with their family, in order to protect their own lives.



In high-rise buildings, etc. in Tokyo

If a Nankai Trough mega earthquake occurs, it is thought that a long-period, slow and large shaking (ground motion) will occur. This kind of earthquake motion is called “long-period ground motion,” and when the seismic wave period and the natural period of a high-rise building or condominium match up, the subsequent resonance will make the building shake significantly. When a high-rise building resonates, it will sway largely for a long period of time, which can cause indoor furniture and appliances to fall over or move, and elevators to malfunction.

Tokyo Metropolitan Government’s Damage Prediction Website

A website has been created based on “Predicted Damage to Tokyo from an Earthquake Directly Hitting Tokyo” and enables you to check the damage that is predicted to occur around you when a disaster occurs.

Tokyo Damage Prediction Map

You also can check the seismic intensity distribution and damage distribution described in “Predicted Damage to Tokyo from an Earthquake Directly Hitting Tokyo” on maps.

Tokyo My Predicted Damage

By selecting factors including your family composition, building structure, and the area you live in, you can create your own “My Predicted Damage.”



New Preparations for Changing Disasters

In recent years, disasters have become more severe and more frequent all over Japan, to the point where we hardly have time to catch our breath between disasters. In particular, the nature of disasters is changing dramatically, with the occurrence of new weather phenomena such as torrential rains, large typhoons, and rainbands, as well as increased volcanic activity being confirmed in various places, which are thought to be caused by climate change and active movement of the earth’s crust.

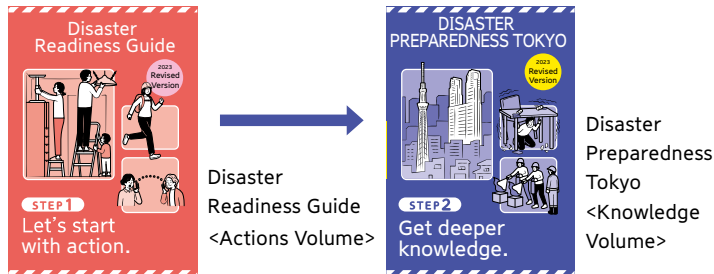
On the other hand, the number of people who need various types of support is increasing as society ages, the digitalization of society is progressing, and disaster preparedness apps and web-based services that utilize smartphones are now available, while the use of battery devices and LED lighting is also expanding. In response to changing disasters, it is important for society as a whole to improve its various preparations, such as improving new preparations through self-help, increasing opportunities to experience disaster preparedness, and interacting with the community.



Source: Iwate Prefecture “Proposals from Iwate Prefecture regarding disaster preparedness and reconstruction based on lessons learned from the Great East Japan Earthquake and Tsunami” (2015)
<https://www.pref.iwate.jp/kensei/seisaku/bousaikaigi/1012174.html>
Japan Meteorological Agency “What is Long-period Ground Motion” from the Japan Meteorological Agency website

How to use “Disaster Preparedness Tokyo”

Two volumes have been prepared, the Disaster Readiness Guide, which is an ‘actions’ volume that links to actions to be taken during daily life, and the Disaster Preparedness Tokyo, which is a ‘knowledge’ volume intended to improve knowledge in order to be more fully prepared for disasters. Please read and use the Disaster Readiness Guide before using this Disaster Preparedness Tokyo. Learn how to protect your life in preparation for a disaster.



Do Now Mark



In this manual we have added the “Do Now” mark to pages introducing disaster preparedness actions that can be implemented right away. Make it a point to first confirm the contents of pages containing this mark and carry out those actions.

▫ What is Daily Stockpiling	👉 Page 036
▫ Emergency Bag	👉 Page 040
▫ Preparing Inside the Home	👉 Page 044
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▫ Prepare Ways to Confirm Safety	👉 Page 054
▫ Know Your Community's Disaster Risk Level	👉 Page 060
▫ Seismic Retrofitting a Detached House	👉 Page 076
▫ Learn About Disaster Preparedness	👉 Page 096



Download the Disaster Preparedness Tokyo app

This is the Tokyo Metropolitan Government's official disaster preparedness app, which is useful in daily life and in an emergency. The app features content that will be useful in the event of a disaster and allows users to have fun while gaining basic knowledge about disaster preparedness, based on the concepts of “play,” “learn,” and “use.”



Android version

iOS version

Tokyo Stockpiling Navi



Understand the items and quantities that you need to stockpile by simply answering some simple questions such as your family composition. Start with what you can do for yourself and your loved ones.

Tokyo My Timeline

Decide in advance what you will do to prepare for evacuation in the event of a flood, in order to avoid panic in case of an emergency. This will allow you to organize appropriate evacuation actions in advance.



Tokyo Disaster Preparedness Seminars

The Tokyo Metropolitan Government conducts “Tokyo Disaster Preparedness Seminars” that invite disaster preparedness experts to your city.



Download it now before a disaster strikes.

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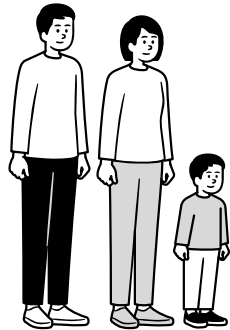
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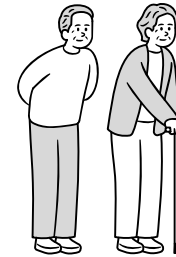
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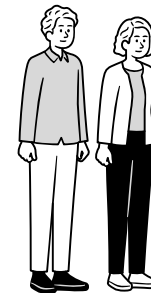
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Earthquake



Necessary Preparations

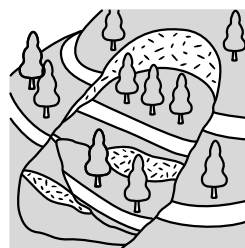
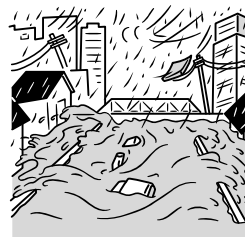
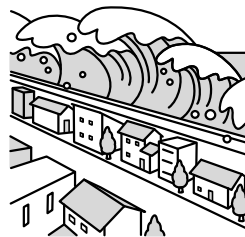
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Lightning

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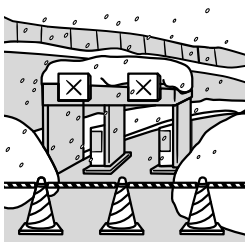
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1

Preparation and Actions for a Mega Earthquake (1)

It is predicted that there is a 70% possibility of an earthquake directly hitting Tokyo within the next 30 years, as well as an 70 to 80% possibility of a Nankai Trough earthquake. Nobody knows if it will actually happen, and if so, when it will happen. However, there are things you can do now to prepare for the various risks and to minimize the damage that a major earthquake can cause. Let's prepare for what could happen.

Voice from experience

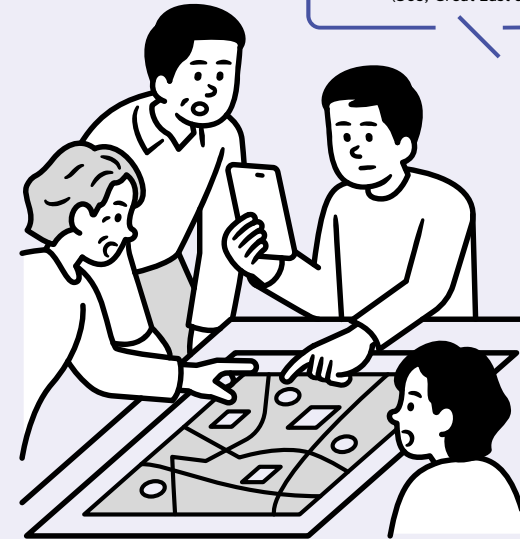
The biggest problem was not having a change of clothes. I couldn't take a bath for five days and felt uncomfortable. I put underwear in my evacuation backpack.

(70s, Great East Japan Earthquake)

Voice from experience

Since I lived alone, I would buy food for my meals each day. I learnt the importance of stockpiling food.

(30s, Great East Japan Earthquake)



Voice from experience

My family and I discussed ways to confirm each other's safety, and we are putting effort into confirming evacuation routes and stocking up on the minimum amount of food.

(40s, Great East Japan Earthquake)

Source: Edited and created based on Cabinet Office, One Day Before Project, <https://www.bousai.go.jp/kyoiku/keigen/ichinitimae/index.html>

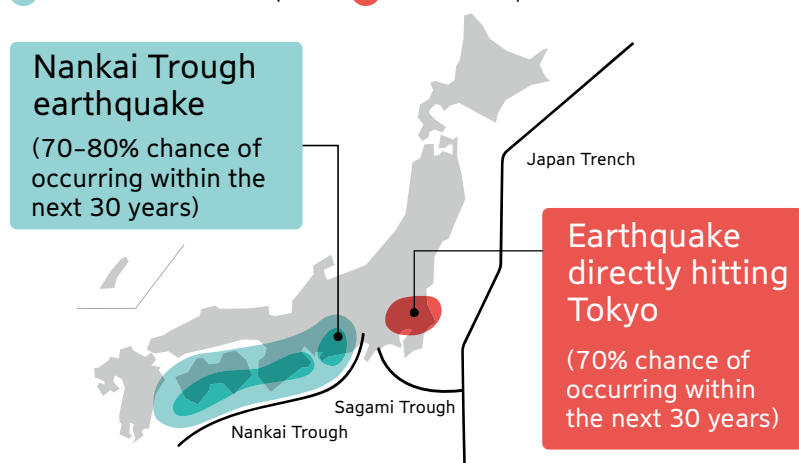
Reasons to Prepare for a Mega Earthquake

Japan is prone to earthquakes

The reason why Japan is said to be an earthquake-prone country is because there are multiple plates surrounding the country, which trigger earthquakes when they shift. The movement of these plates is expected to lead to a large-scale earthquake directly hitting Tokyo.

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● Subduction-zone earthquake ● Inland earthquake



What is an earthquake directly hitting Tokyo?

Because there is a complex structure of various plates subducting beneath Tokyo, it is expected that a gigantic magnitude 7-class earthquake will occur in the southern Kanto region with an epicenter in the Tama area or in central Tokyo.

What is the Nankai Trough mega earthquake?

A Nankai Trough ocean trench mega earthquake is the earthquake that is predicted to occur with an epicenter in the Nankai Trough, which stretches from the Tokai region to Kyushu. The metropolitan area, including Tokyo, will also be hit by tremors with a maximum seismic intensity of 6 Lower, and there is a risk of tsunamis.

Assuming Various Evacuation Scenarios

In the case of Tokyo, due to its large population that is typical of a capital city, there is the risk that people will rush to evacuation centers in numbers greater than can be accommodated, emergency vehicles will not be able to pass through congested roads, leading to the situation where “people take away people’s lives.” There is the risk that if lifelines are damaged, you will not be able to use electricity, gas, water, or sewerage until restoration is completed.

To protect your own safety Evacuate to an evacuation area

An evacuation area is a place where people can urgently evacuate to, in order to protect their lives in situations of imminent danger. Please check your local municipality’s websites in advance.



At least three days’ to one week’s (recommended) worth of food Stockpile and prepare for sheltering at home

You should shelter at home if it is possible for you to continue living in your home. At evacuation centers, some people become unwell due to the changes in their environment. It is a good idea to always have at least three days’ to one week’s (recommended) worth of food stockpiled.

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If there is danger in your home An evacuation center provides temporary shelter

A place for people who cannot continue to live in their homes to live in evacuation for a certain period of time. Approximately 4,800 evacuation centers have been secured in Tokyo.

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Options other than home or an evacuation center The home of a relative or acquaintance, or a hotel

Evacuating to the home of a relative or acquaintance where safety is ensured or staying in a hotel are also options. Be aware of the various evacuation methods and regularly plan what actions you will take.



Sheltering at Home Preparations

by Housing Type

Condominiums/apartments

Practice mutual assistance while protecting privacy

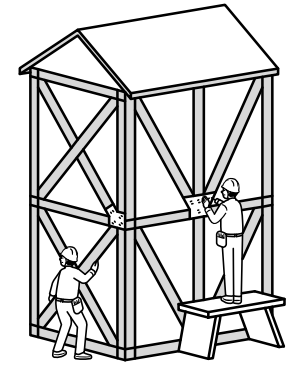
Although condominiums and apartments that satisfy seismic resistance standards are at little risk of collapsing, there is a possibility that water may be cut off due to power outages, or that the elevators may stop working. It is necessary to cooperate and help each other, such as sharing information while maintaining privacy and assisting to carry supplies up the stairs. Building relationships on an ongoing basis will help you prepare for an emergency. ➔ Page 66



Detached housing

Prepare for earthquakes from both inside and outside

Seismic resistance is also important for detached houses. The measures you should take depend on when the house was built, so check when it was built, as well as whether the roof is made of tiles and what condition the walls are in. Additionally, termite damage may reduce seismic resistance even if there are no apparent problems externally. ➔ Page 76



High-rise condominiums

Check the emergency stairs in case of fire etc.

If you live on a higher floor, be sure to ascertain the location of the emergency stairs in case of a fire as well as nearby evacuation centers. If the elevators stop working after an earthquake due to a power outage, it may be difficult to go up and down to the floor on which you live, making sheltering at home difficult. Also, the emergency water supply systems vary depending on the building, so also check your building's system. After a disaster, refrain from using toilets, etc. until the sewerage facilities have been checked. ➔ Pages 42, 66-68, 71



Understand your region's characteristics and learn from past disasters

Regardless of your housing type, it is important to know the topography of the area in which you live and the characteristics of the ground, such as whether it is a low-lying area that is prone to shaking, situated on a plateau, or if there is a possibility of being affected by a tsunami. Also, by understanding past disasters that have occurred, you can learn what measures have been taken to prevent dangers that are likely to occur in the area. ➔ Page 62



What is Daily Stockpiling?

Rather than stockpiling specifically in preparation for a disaster, it is important to have a “daily stockpile” of the food and daily necessities that you need in order to live at home. The key to stockpiling is to always have a little extra of the items you regularly use.



Use the “Tokyo Stockpiling Navi” to find out the items you should stockpile and the approximate quantities you will need! You can also learn about stockpiling ideas and recipes for preserved foods on the site.



Model family: Example of a family of four – a husband, wife, infant and elderly woman, living in a detached house

* It is assumed that contact lenses are used, the infant has an allergy, and the elderly woman uses a hearing aid.

* Recommended amount for approximately three days to one week

	Items required by some individuals		
	Women	Set of 30 As appropriate	
Food etc.	Water	3 L per person per day	
	Pre-washed rice	4 kg	
	Retort pouch rice	27 serves	
Daily items	Instant noodles	3 packs	
	Canned food (mackerel, etc.)	9 cans	
	Canned fruit	3 cans	
	Retort pouch food	9 packs	
	Vegetable juice	9 bottles	
	Favorite drinks (500ml)	9 bottles	
	Cheese and protein bars	3 packs	
	Snacks	3 packs	
	Nutritional supplements	9 boxes	
	Powdered health drink	9 bags	
	Plastic bags	1 box	
	Plastic wrap	1 roll	
	Aluminum foil	1 roll	
	Tissue paper	4 boxes	
	Toilet paper	4 rolls	
Ignition stick	1		
Cloth duct tape	2 rolls		
Work gloves	9 pairs		
Vinyl gloves	1 box		
Sanitary goods	First aid kit	1 box	
	Masks	9	
	Regular medicines/supplements	1 box	
	Disinfectant wet wipes	120 sheets	
	Disposable contact lenses	1-month supply per person	
	Alcohol spray	2 bottles	
	Wet wipes for cleaning your teeth	About 90 sheets	
	Infants	Powdered milk (stick type)	18 serves
		Liquid milk	18 serves
		Allergy-friendly baby food	9 serves
	Baby wipes	3 packs	
	Diapers	30 pieces	
	Disposable baby bottles	18	
Elderly people	Rice porridge	9 serves	
	Hearing aid batteries	As appropriate	
	Denture cleaning agent	12 tablets	
Items to test periodically			
	Portable gas cooking stove	2 units	
	Gas cylinders	8	
	Portable/emergency toilets	45 uses	
	Flashlights	2	
	LED lanterns		
	Minimum of 3		
	Headlights	4	
	Dry-cell batteries	As appropriate	
	Hand-rechargeable or other type of radio	1 unit	
	Portable charger (spare battery)		
	Backpack	As appropriate	
		1	

Main Goods to Stockpile

Food etc.

- Water
- Pre-washed rice
- Pre-packaged rice
- Instant noodles
- Canned food (mackerel, vegetables, etc.)
- Canned fruit
- Retort pouch food
- Freeze-dried food
- Dry food
- Vegetable juice
- Drinks (beverages you like to drink, other than water)
- Cheese, protein bars, etc.
- Snacks
- Nutritional supplements
- Powdered health drink
- Seasoning set

Daily items

- Plastic bags
- Plastic wrap
- Aluminum foil
- Tissue paper
- Toilet paper
- Ignition stick
- Cloth duct tape
- Work gloves
- Vinyl bags
- Newspaper

□ Sanitary goods, etc.

- First aid kit
- Masks
- Regular medicines/supplements
- Prescription drugs
- Disinfectant wet wipes
- Wet body wipes
- Disposable contact lenses
- Alcohol spray
- Mouthwash
- Wet wipes for cleaning your teeth

For women

- Sanitary products
- Basic cosmetics

For infants

- Powdered milk (stick type)
- Infant liquid milk
- Allergy-friendly baby food
- Baby wipes
- Diapers
- Disposable baby bottles

For the elderly

- Rice porridge
- Hearing aid batteries
- Denture cleaning agent

Items stockpiled for a disaster that should be tested periodically

- Portable gas cooking stove
- Gas cylinders
- Portable/emergency toilets
- Flashlights
- LED lanterns
- Headlights
- Dry-cell batteries
- Hand-rechargeable or other type of radio

For pets

- Pet food
- Water
- Collar and lead
- Toilet supplies for pets
- Food bowl



Emergency Bag



An emergency bag is a bag that contains the minimum essentials needed for the time being after you evacuate. In preparing an emergency bag, it is important to think about what each of you would need, and select items to be put in the bag. Pack those items in bags such as knapsacks, and place them near the front entrance or in the bedroom, car, or shed so that you can carry them out even if your house has collapsed. If you have an infant or child, or if you are elderly, a woman, or have allergies, be sure to add items that you will require to your emergency bag.



- Portable toilet
- Headlights
- Helmet (a foldable type is convenient)
- Raincoat
- Disaster preparedness whistle
- Towel
- Water (one or two 500 mL bottles)
- Masks
- Jelly drinks, etc.
- First aid supplies
- Portable phone charger (dry cell type, solar rechargeable type)
- Water bag
- Dry-cell batteries

Emergency bag that is always carried around

In case a disaster occurs while you are out, always carry the minimum requirements in your bag. Remove the batteries from the portable radio.

- Portable phone charger (dry cell type, solar rechargeable type)
- Portable toilet
- Plastic bags
- Masks
- First aid supplies
- Leather/rubber gloves
- Headlights
- Snacks such as jelly drinks

Emergency bag to be kept at workplace

Aside from what your employer has in stock, prepare your own emergency supplies by imagining what you would need if you have to stay overnight at your workplace or walk home.

- Comfortable shoes
- Flashlight
- Sleeping bag
- Water bottle
- Helmet
- First aid kit
- Portable toilet
- Emergency food
- Work gloves
- Raincoat

Important items you should keep together

Keeping certificates or other important documents in a plastic case with a fastener can also protect them from water. It might be a good idea to carry a photograph of your family in case you need it.

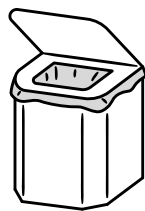
- Photograph of your family
- Bankbook
- Stock certificates, etc.
- Driver's license
- My number card
- Health insurance card
- Medication record
- Pension record

Toilet Preparation



Portable toilet

Portable toilets can be attached to a toilet bowl or even used inside a car in circumstances where flush toilets cannot be used due to a water outage or damage to drain pipes. They are used by excreting into the bag, stabilizing the water content with an absorbent sheet or coagulant, and tying closed the bag each time it is used. It may be several days before garbage is collected. Some types of portable toilets have a deodorizing effect.



Emergency toilet

If a flush toilet cannot be used, it can be assembled using materials such as cardboard. As with a portable toilet, it is best to stabilize excrement with an absorbent sheet or coagulant. As it is simple and portable, it can be used inside a car, a tent, or anywhere if partitioned off with partitioning.

Expect one week's worth of excreted waste to accumulate

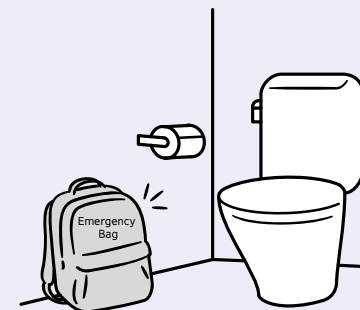
If living in evacuation and flush toilets cannot be used, the excreted waste will need to be stored for a certain period of time. Taking one week as a guide, the amount of waste produced will be the number of times a person excretes per day, multiplied by the number of people, and multiplied by 7. When storing such waste, it is a good idea to keep hygiene in mind and prepare gloves, deodorant, coagulant, zip-lock plastic bags and plastic bags whose contents cannot be seen.



Source: "Introduction to Disaster Preparedness" (Supervised by Nobue Kunizaki, edited by Creative Suite, Natsumesha, 2021)

Prepare an emergency bag for the toilet too

We do not know when a disaster will occur. There is also the risk of becoming trapped in a small space such as a toilet or bathroom. Therefore, it is a good idea to prepare an emergency bag for the toilet that contains drinking water, emergency food, and an emergency radio/light as a minimum. If you are stuck in a small toilet and the power goes out, the light from a flashlight can be very reassuring.



Example of an initiative at Chuo University Suginami High School (Suginami Ward)

Chuo University Suginami High School in Suginami Ward has purchased waste coagulants (portable toilets) in preparation for restrictions on the use of toilets in an emergency. They are packed in backpacks with plastic bags, rubber gloves, wet tissues, sanitary products, etc., and are stored in 69 toilet cubicles within the school. Printed materials explaining how to use the portable toilets are displayed in all of the toilet cubicles, thus disseminating information that will be useful in the event of a disaster.

Source: Tokyo Fire Department "19th Regional Fire and Disaster Preparedness Achievement Award Case Studies" (published January 2023)

🏠 Preparing Inside the Home



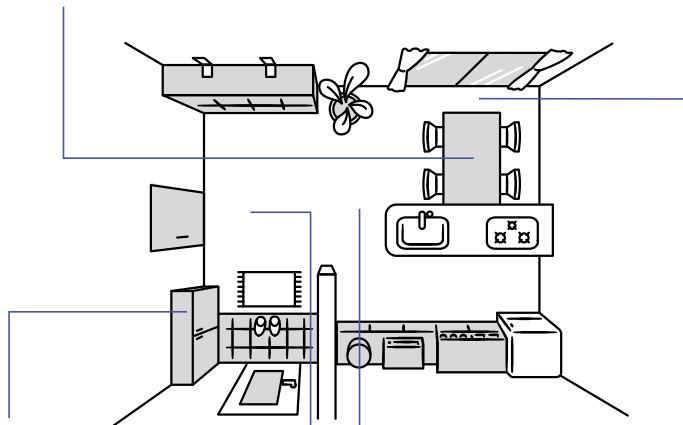
① Check the room's safety

Keep the dining table clear

Tables are particularly slippery, so if items are placed on them, they will scatter during an earthquake and hinder evacuation. Be careful not to place large furniture around the dining table.

Be careful of breakable objects and flying glass

There is a risk of injury during evacuation if strong shaking causes window glass to break, or ceramic or glassware to fall to the floor and break.



Consider ways to move around in the dark

In preparation for an earthquake occurring at night, have footlights that will provide illumination during a power outage. In the bedroom, keep your glasses, walking cane, and cell phone by your bedside.

Reduce the amount of items in the room

Reducing the amount of items you have and keeping them tidy will not only make life easier, but will also improve safety by reducing the number of obstacles when evacuating.

Don't place things in hallways or near doors

The hallways and doors that lead to the entrance will be the evacuation routes in an emergency. Try not to place things in the entrance, hallways, and stairs and keep them easily accessible.

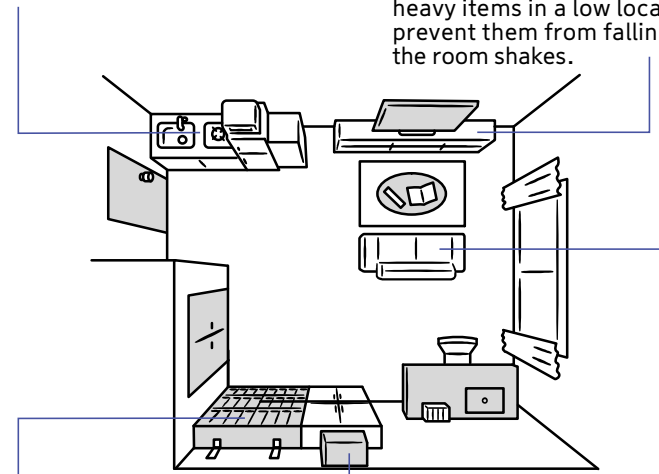
② Consider furniture placement

Do not place flammable items near the gas stove

Place flammable furniture and accessories away from the gas stove.

Lower the center of gravity by placing heavy objects on the bottom

Try to keep the center of gravity low when storing things. Storing heavy items in a low location will prevent them from falling over if the room shakes.



Gather tall bookshelves together

Furniture that is not secured can easily fall over, so arrange them in one place and use them like a walk-in closet.

Relax in a safe space

Unsecured furniture can become a deadly weapon in a major earthquake. Relax in a safe place where furniture will not fall over.

Do not place heavy or breakable objects in high places

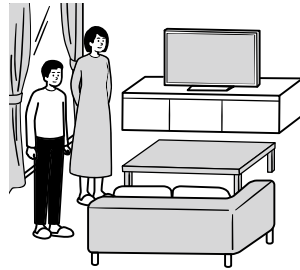
When storing kitchen items, store heavy pots and pans at the bottom, and place lighter items as you move upwards. Avoid storing utensils in wall cabinets.

Source: "Introduction to Disaster Preparedness" (Supervised by Nobue Kunizaki, edited by Creative Suite, Natsumesha, 2021)

③ Prevent furniture from tipping

Secure furniture to reduce risk

If furniture tips over due to a large earthquake, not only is there the risk of being hit by the furniture itself, but the items inside can also fly out, impeding evacuation or causing injuries from falling items. Secure furniture, TV, refrigerator, microwave, etc., and change their layout so that they will have less of an effect even if they fall over.



Plan the layout to ensure safety



Reduce furniture too

Reduce not only the amount of small items, but also the amount of furniture too. For storage, be sure to use storerooms, closets, and built-in furniture.



Ensure escape routes

Make sure that household appliances and furniture will not block doors or escape routes if they fall over or move. Also be careful of drawers sliding out.



Be careful of fire too

If furniture hits a stove during an earthquake, it may lead to a secondary disaster such as a fire. Take measures to prevent furniture and appliances which may cause a fire from tipping over, falling, or moving.



Measures to secure furniture at home from tipping over and sliding

If you look inside your home from the perspective of disaster preparedness, the layout of your furniture and the way you place things will also change. Learn about stabilizing furniture and create a home that keeps your family safe.



Furniture Stabilization



Stabilization measures

Secure to the wall with screws

Once you have planned the layout of your furniture, it is now time to secure it in place through the use of various stabilizing devices. The surest way to achieve this is to use L-brackets and screws to secure a piece of furniture to the wall. If this is not an option, using tension rods in conjunction with tip-over prevention wedges or anti-slip pads will raise the level of effectiveness.



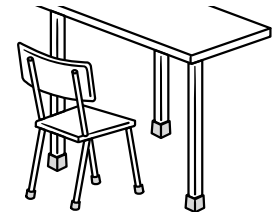
Stabilize furniture on casters

For furniture that you move on a daily basis, lock casters when you are not moving it around. If the piece has a fixed location, attach it to the wall or floor using a detachable safety strap or other means. For furnishings that you do not normally move, install devices such as caster cups or tension rods to stabilize them.



Prevent furniture legs from sliding

Even furnishings not set against a wall that are not tall require measures to prevent them from sliding, especially tables and chairs. Affix adhesive anti-slip pads to furniture legs, or on carpet, use slide prevention mats. On tiled carpet, point the convex side of hook-and-loop fasteners toward the carpet.



Long-period ground motion (see page 238) is a problem, especially on the upper floors of high-rise condominiums. The period refers to the time it takes for a building to sway back and forth once. Compared to low-rise buildings, slow and large swaying with a longer period will occur.

Pros and cons of stabilization methods

L-brackets (installed facing upward with 3 screws)

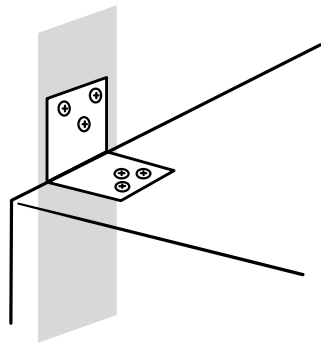
Secure furniture to the wall using wood screws or bolts. L-brackets can be installed using the slide method, facing upward, or facing downward. Installing the brackets facing downward offers the strongest support. Align the L-bracket to the wall's substrate, and secure the top of the furniture to the top of the bracket, and the side of the bracket to the wall's substrate, using three screws on each side.

Pros

They are effective even on higher floors of condominiums that are prone to shaking, as they have higher holding power than two-point fixation.

Cons

Use may be restricted in rental housing, where walls are not allowed to be damaged. In addition, the holding strength is reduced when the substrate is LGS (light steel frame), such as in some condominiums.



Tension rods and pole devices

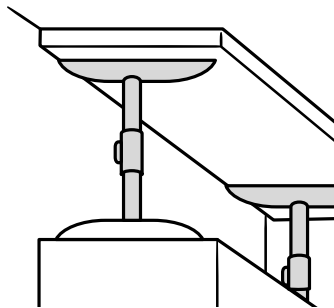
These devices are not secured using screws, but are installed in the space between the piece of furniture and the ceiling. By pairing these devices with anti-slip gel pads and tip-over prevention wedges, stability is increased. Be sure to use a set of two poles and position them close to a beam on the wall-side.

Pros

They can be installed without damaging walls or furniture, and can prevent furniture from falling over.

Cons

They tend to loosen over time and need to be checked once every six months.



Anti-slip sheets (pad type)

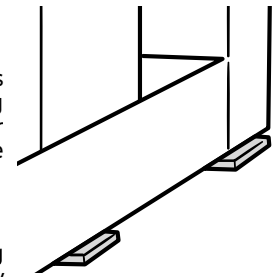
An adhesive sheet is placed under the furniture to fix it to the floor.

Pros

Since it uses surface tension to stick as if it is wet, it can be used easily without damaging the furniture or floor, making it suitable for lightweight and low-line furniture and home appliances.

Cons

Depending upon the strength of the shearing force* applied to the furniture, the sheet may peel off easily. * The force to move something



Detachable furniture safety straps

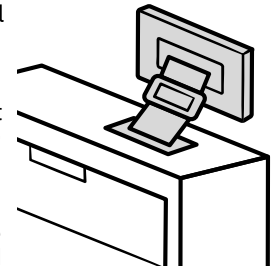
Used for furniture and appliances which cannot be attached to a wall, and fixes them to a wall or a strong substrate.

Pros

Suitable for furniture and appliances that cannot be attached to a wall, and can be moved by attaching and detaching the belt.

Cons

Force is applied to the extra length of the belt by the shaking of an earthquake, and the holding strength is weaker than that of L-brackets.



Chains

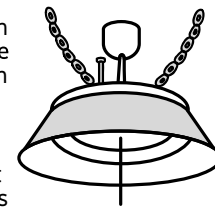
Use chains or wires to attach hanging lighting fixtures to the ceiling to prevent them from moving.

Pros

Effective to prevent lightweight hanging objects from falling due to shaking.

Cons

The chain's connector may become deformed and easily come off.



Anti-slip wedges

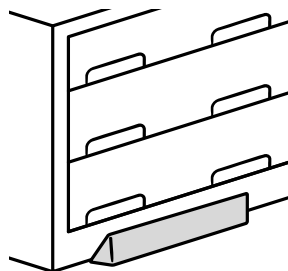
Insert the wedge beneath the front of the piece of furniture and lean it toward the wall. A single piece that matches the width of the furniture can be expected to provide more of an anti-slip effect than several pieces.

Pros

It is easy to install without damaging the furniture or floor.

Cons

There are differences in the effectiveness of preventing movement, depending upon the material and shape.



Caster cups

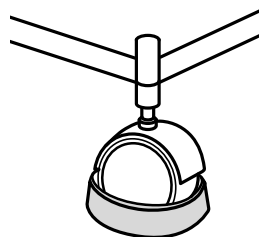
Place the cups under caster wheels to prevent furniture from moving. Place a cup under two wheels on the diagonal.

Pros

They are effective in preventing the movement of furniture that is placed away from a wall.

Cons

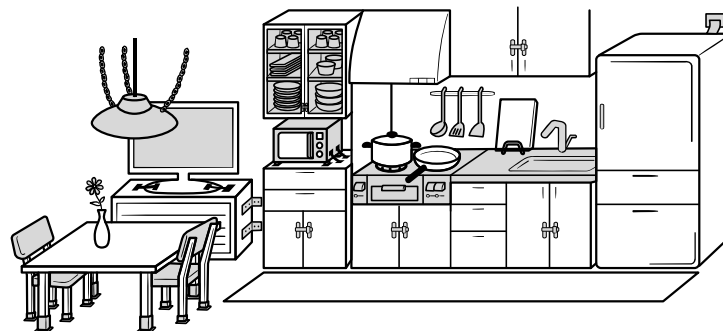
They may not be suitable for use on high floors where there is significant swaying.



Furniture Stabilization Checklist

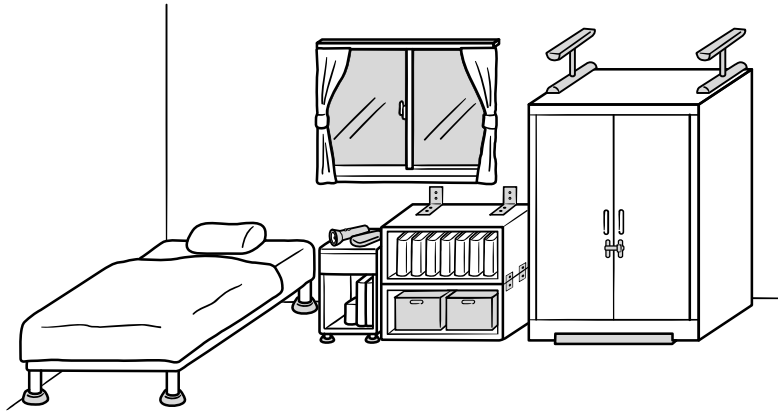


Living room, kitchen



- Hanging lighting fixtures Use chains to prevent fixtures from swinging.
- Television Stabilize the TV on the TV stand using a detachable furniture safety strap or other method. Affix the stand to the wall using L-brackets, use anti-slip pads under its legs, and use strong anti-slip pads to secure the bottom (four corners) of the TV to the TV stand.
- Microwave oven Stabilize the microwave on the stand using anti-slip pads or safety strap devices, and secure the stand to the wall using L-brackets
- Tables and chairs Affix anti-slip pads to the legs of tables and chairs to prevent sliding
- Cupboards, china cabinets Place cupboards where they won't obstruct escape from the house, even if they tip over, and secure them to the wall. Apply anti-shatter film to any glass.
- Drawers Install safety latches to prevent drawers from sliding out
- Wall cabinets To prevent the items stored inside from flying out, install safety latches on cabinet doors
- Refrigerator Place the refrigerator where it won't obstruct evacuation from the house, and secure it to the wall using a safety strap or other device. Don't put items on top that could easily fall off during an earthquake

Bedroom



- Bed

Affix anti-slip pads to the legs of tables and chairs to prevent sliding. Do not attach pictures or clocks to the wall or ceiling near the bed.

- Window glass

Apply shatterproof film

- Furniture on casters

When not moving furniture, lock casters, insert caster cups, and secure the unit to the wall with furniture safety straps.

- Stackable storage boxes, shelves

Join upper and lower units with connectors and secure units to the wall with L-brackets. Don't put items on top that could easily fall off during an earthquake

- Chest of drawers, wardrobes

Place chests and wardrobes where they won't obstruct your escape route and doors. Secure the unit to the wall or ceiling using L-brackets or tension rods, and place a tip-over prevention wedge under the unit.

Making Your Home Safer

Try to change materials that will pose a danger in the event of a disaster when it comes time to replace them, in order to create a home that protects your loved ones.

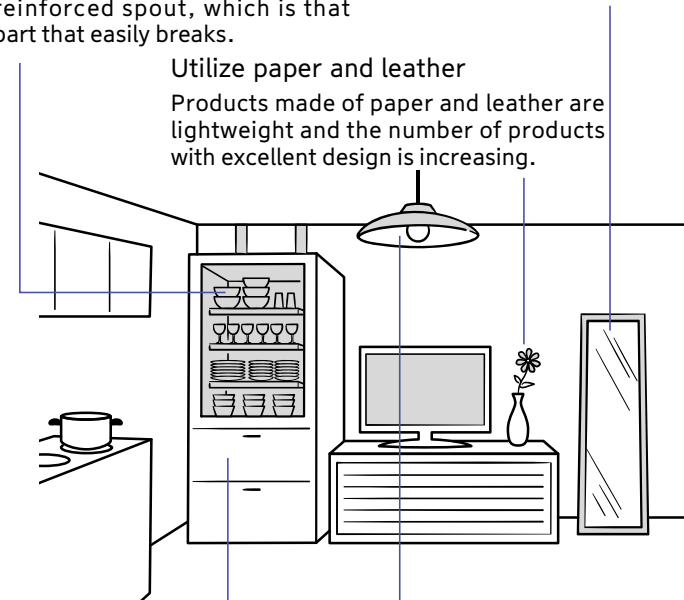
Choose tableware that doesn't break easily

Choose wooden or lacquerware tableware, or glass that has a reinforced spout, which is that part that easily breaks.

Use sheet-type mirrors
Unbreakable mirrors made of acrylic or resin are inexpensive, lightweight, and safe.

Utilize paper and leather

Products made of paper and leather are lightweight and the number of products with excellent design is increasing.



Pay attention to layout

Consideration for glass items

Glass can break when it collides with other objects, so be careful where it is placed and stored.

If possible, glass chandeliers and ornaments should be replaced with unbreakable material.

Source: "Introduction to Disaster Preparedness" (Supervised by Nobue Kunizaki, edited by Creative Suite, Natsumesha, 2021)



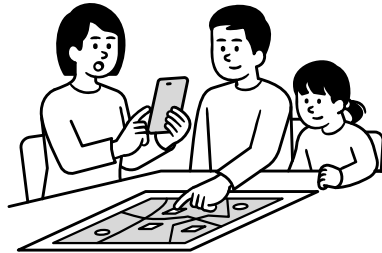
Preparing Ways to Confirm Safety



As preparation for a disaster, it is important to decide how you will confirm your safety and how you will communicate with your family. Ensure that you are not at a loss if a disaster suddenly occurs when you are at work or out.

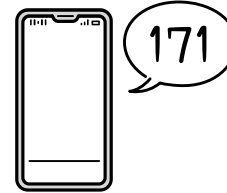
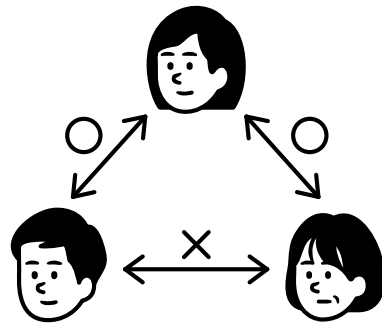
Hold a family meeting and confirm evacuation destinations

Decide with your family in advance how you will confirm your safety if you are not together when a disaster occurs. Prepare multiple contact methods in case it is difficult to connect by phone or email. Also, in case you are unable to make contact, decide on specific evacuation areas, routes to get there, and a meeting place.



Secure various communication methods

It may be difficult to contact people when a disaster occurs. In such cases, consider using the “triangular communication method,” by using the homes of family members, relatives, or acquaintances who live far away as relay points, as well as the Disaster Emergency Message Dial. Also, check whether your family members’ workplaces have rules about contact methods in case of an emergency. If you live alone, regularly discuss what you will do in the event of a disaster with close friends or neighbors you can trust.



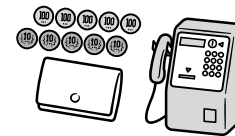
NTT East’s Disaster Emergency Message Dial 171 service

A message service that allows a person in the area affected by a disaster to record a message confirming their safety. This message can then be played back by others trying to reach that person. There is also the “web171” service that provides safety confirmation via the Internet.



Disaster message board services

This service, provided by cell phone carriers, enables people to register information concerning their safety using their cell phone or smartphone. These messages can then be confirmed by others.



Public telephones

When a disaster occurs, it becomes difficult to successfully place a call using regular phone lines. However, it is said that calls go through relatively easily on public telephones.

Use social media

Most people now have smartphones and use social media and messaging apps. If it is difficult to connect to a phone line, it may be easier to make contact through social media. It is best to prepare in advance, such as forming a group with your family.

* In the event of a large-scale disaster, the Wi-Fi service “0000JAPAN” that is provided for disaster relief will be made available for free. It can be accessed by selecting “0000JAPAN” on your smartphone’s Wi-Fi settings screen.

Public telephones may also be available for free during a disaster. Digital public telephones allow calls to be made without a coin or telephone card. Analog public telephones require the insertion of a coin or telephone card, which is returned after the call is finished. However, 100 yen coins sometimes may not be returned.

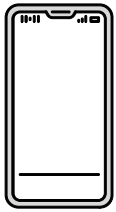


* Connection may not be possible depending on signal conditions.

Source: All About “Proper use of social media during a disaster as recommended by experts (IT Literacy Guide, Akiko Takahashi)” <https://allabout.co.jp/gm/gc/463515/>



Preparing Ways to Access Disaster Information



Install apps that will be useful in a disaster

Smartphone apps are valuable in a disaster, such as for obtaining disaster information and directions to nearby evacuation centers. It is also a good idea to carry a portable phone charger.

Smartphone apps

An app to find nearby evacuation facilities

An app that guides you to a nearby evacuation facility will be useful if you are out or traveling in an unfamiliar area.

An app that sends location information

An app that will notify your location to people you have registered in advance.

Lifesaving apps

Apps such as a first aid app and the light app will help protect you from danger in a disaster.

Radio app

This is recommended so you can listen to the radio on your phone if you don't have a radio with you.

Disaster information app

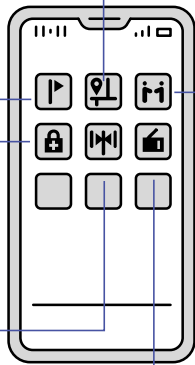
A push-alert app that delivers earthquake early warnings and other warnings to your smartphone is useful.

Social media apps

Useful for communicating with friends and acquaintances and gathering information.



Disaster Preparedness Tokyo's official X (formerly Twitter) account: @tokyo_bousai



Obtain up-to-date information

Gather information with your smartphone

In recent years, the use of social media by local governments and lifeline-related companies has been increasing. However, information on personal websites and social media accounts may be of questionable authenticity. Be careful not to get swayed by such information.



Tokyo Metropolitan Government's Disaster Prevention Website

This site provides information on disaster preparedness during normal times and damage status in a disaster, so it is useful to access and check its contents on a regular basis.



Tokyo Metropolitan Government Disaster Prevention Map

You can find the location of disaster prevention facilities, support stations for people returning home following a disaster, and other relevant facilities on the maps on the Tokyo Metropolitan Government disaster prevention website.



Obtain correct information

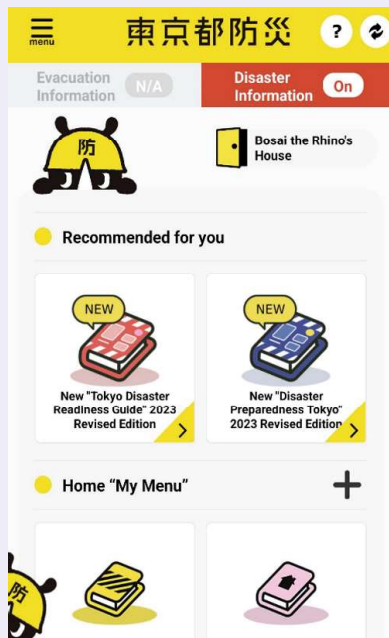
In a disaster, it is important to ensure you obtain correct information. You may be able to help solve problems by posting information on social media as necessary.

Master the Disaster Preparedness Tokyo app

How to download the Disaster Preparedness Tokyo app (page 17)

What is the “Disaster Preparedness Tokyo app”?

This is the Tokyo Metropolitan Government’s official disaster preparedness app, which is useful in daily life and also in an emergency. The app not only allows users to have fun while gaining basic knowledge about disaster preparedness, based on the concepts of “play,” “learn,” and “use,” but also contains content that will be useful in the event of a disaster. You can customize the menu to your liking from a wide range of contents that are useful for disaster preparedness, including the disaster preparedness books “Disaster Preparedness Tokyo” and “Disaster Readiness Guide.”



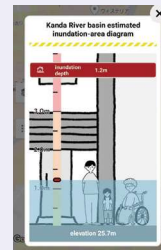
Read the disaster preparedness books

You can read “Disaster Preparedness Tokyo,” “Disaster Readiness Guide,” and “Disaster Preparedness for Condominiums” on your smartphone or tablet.

Flood risk maps, weather radar

Disaster prevention maps

By downloading the maps in advance, it will display your current location even when you are offline and help you navigate to your destination. It can be used to check nearby disaster preparedness facilities.



Flood risk map

You can visually check predicted flood risks in Tokyo in an easily understood manner, including from rivers, storm surges, and sediment disasters.

Weather radar

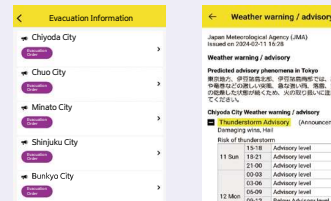
You can check the movement of rain clouds and typhoon information.

Disaster Information

Push alerts of weather information, earthquake information, evacuation information, etc. will be sent for the municipalities registered as ‘My Area’.

Types of disaster information

Check evacuation information, earthquake information, tsunami information, (warnings and advisories), sediment-disaster alert bulletins, tornado warning information, and eruption warnings and forecasts.



Tokyo My Timeline


Helps you organize the appropriate evacuation actions in chronological order according to your environment. You can check the risk of flood damage to your home, and use the chatbot function to navigate through the input of evacuation actions.

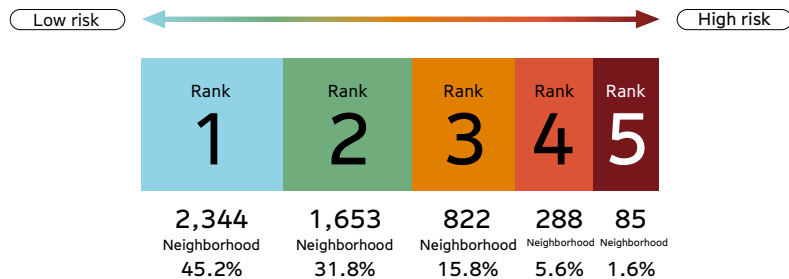


Knowing Your Community's Disaster Risk Level

The level of damage that is predicted varies depending on local characteristics such as topography and the ground. Understanding the local disaster risks, such as whether buildings are likely to collapse due to a major earthquake or whether there is a risk that fires associated with an earthquake will spread, is important for making adequate preparations. Make use of the “Community Earthquake Risk Assessment Survey” and the “Disaster Preparedness Tokyo app” to fully understand the disaster risks in your area.

Community Earthquake Risk Assessment Survey

Unlike the “predicted damage” for a specific earthquake, such as an earthquake directly hitting Tokyo, this system evaluates the relative risk of each neighborhood in Tokyo and ranks the degree of risk.  Pages 250-1



Check the combined risk rankings

The “Community Earthquake Risk Assessment Survey” calculates the local fire risk and building collapse risk and publishes the sum of these risks as the “combined risk” for each neighborhood block. Depending on the ranking, you can understand in detail the risk of buildings collapsing and fires breaking out and spreading in your area due to an earthquake. Please use this information when preparing.



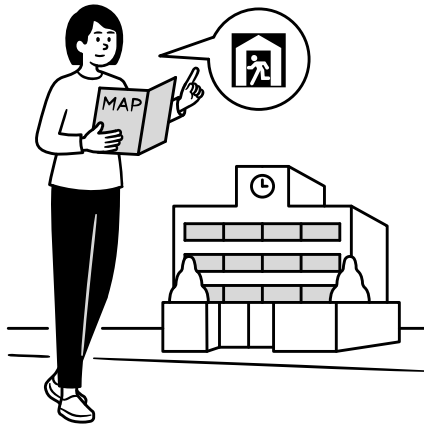
Building collapse risk

The risk of building collapse is measured based on the characteristics of the buildings and ground. High risk areas are alluvial lowlands with soft ground and areas where old wooden and light-gauge steel frame buildings are concentrated. They are distributed in areas such as along the Arakawa and Sumida rivers.



Fire risk

Fire risk is calculated from the risks of fire outbreak and spread. Many communities at high risk exist in areas where there is a high concentration of wooden houses, and are found in areas including those along Kannana dori and the JR Chuo line (ward area).



Know the area around your house

Knowing the topology, geological features, cliffs and other dangerous areas around your house, as well as past disasters and measures that were taken are indispensable disaster measures. Make sure to also confirm the location of evacuation areas, evacuation routes, open spaces such as large parks, and facilities such as community halls and convenience stores. This will facilitate your early response in the event of a disaster, and allow you to evacuate to a safe place.



Check the hazard map

A hazard map contains information such as areas predicted to suffer damage, evacuation area, and evacuation routes, for use in mitigating damage from a disaster and for disaster preparedness. Check the map for your community's risk of damage from hazards such as flood, landslide, and liquefaction.



Hazard Map Portal Site

A portal site on disaster risk operated by the Ministry of Land, Infrastructure, Transport and Tourism. The “Overlapping Hazard Maps” can be used to check disaster risks related to floods and landslides in an area by simply entering the address you want to check, and with “My Town Hazard Map” you can easily search for hazard maps published by municipalities.



Learn about your community's history of disasters

Disaster preparedness measures are formulated based on experience from past disasters. Learning about your community's history of disasters, such as past floods or earthquakes, can enable you to make more practical preparations. Ask neighbors who know about the area's past, or look this information up at a library.

➡ Page 101

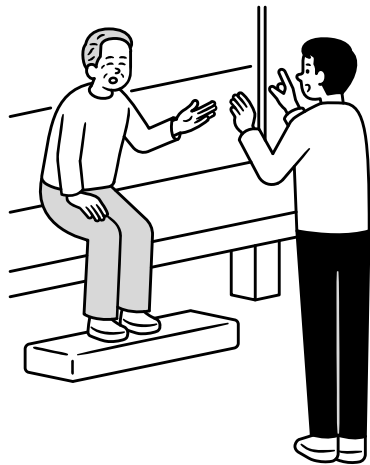


Building Supportive Relationships with Your Neighbors



Exchange greetings with neighbors regularly

Cooperation with neighbors is necessary when a disaster strikes. Expand your network within the community through activities such as exchanging greetings with neighbors on a regular basis and participating in disaster preparedness drills conducted by your community association, so that your life at home or in an evacuation center following a disaster will go smoothly as well.



People who need support

People in need of support such as expectant mothers, children, the elderly, foreign nationals, and those with serious illnesses or disabilities may not be in a position to promptly ascertain information or evacuate. In addition to always being aware of the members of your community who need support, cooperate with commissioned welfare volunteers and others to support them when a disaster occurs.



Joining a Volunteer Disaster Response Team

Join a volunteer disaster response team to protect your town

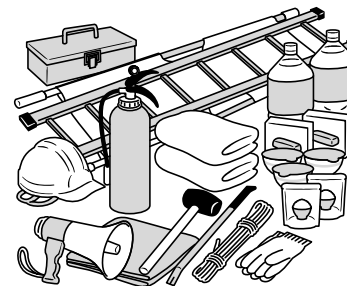
A Citizens Disaster Response Team is an organization that aims for effective community response to disasters under the principle of neighbors cooperating with each other to protect their community. This collaborative organization is mostly based on the unit of community or neighborhood associations. The person in charge of disaster response in the community association, etc., takes a central role in calling for the formation of this team and conduct activities in line with local circumstances. Your participation will lead to the enhancement of your community's strength and disaster preparedness.

Prepare disaster response goods and equipment

Stocking goods and equipment is essential in order to improve local disaster prevention capabilities. Consideration of what is necessary is based on the local circumstances. Storage and management should be done in a manner that will ensure that they can be used flexibly and promptly in an emergency.

Example of disaster response goods and equipment

- Helmet
- Fire extinguisher
- Hammer
- Waterproof sheet
- Blanket
- Emergency food/water
- Crowbar
- Megaphone
- Work gloves
- Rope
- Shovel
- Jack
- Towel
- Stretcher
- Ladder





Disaster Preparedness in Condominiums

Approximately 9 million Tokyo residents live in communal housing such as condominiums. If the damage is minor in a condominium that meets seismic resistance standards, you may be able to shelter at home. In order to continue sheltering at home, each household and the entire condominium must be prepared. Mutual assistance through mutual cooperation with residents living outside of the condominium is also essential. First, let's learn the strengths and weaknesses of condominiums.

Strengths of condominiums

Seismic-resistant structure

Condominiums that meet seismic resistance standards may suffer cracks or damage due to strong shaking, but they are less likely to collapse compared to buildings built to old seismic resistance standards and sheltering at home is more likely to be possible.



Weaknesses of condominiums

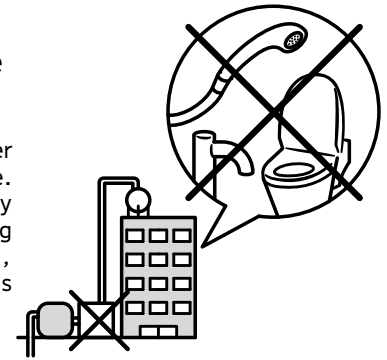
Elevators cannot be used

Occupants may be trapped if an elevator stops between floors due to a major earthquake or power outage, and residents on higher floors, the elderly, and wheelchair users may not be able to return to their home from outside. Also, if restoring the elevators takes time, there may be problems with access to and from the first floor.



Water supply and common facilities cannot be used due to power outages

If pumps stop working due to a power outage, it will lead to a water outage. Additionally, equipment necessary for ensuring safety, such as lighting in common areas and fire alarms, may also stop working, so caution is required.



Toilets cannot be used

There is the possibility that sewage pipes are damaged by an earthquake. If a resident on an upper floor uses the toilet without noticing that the sewage pipe is broken, sewage will overflow on the floors below, causing considerable trouble and bad odors. Do not use the toilet until you are told by the administrator that it may be flushed.

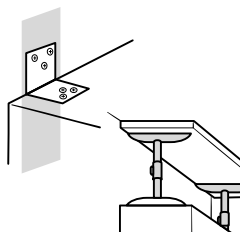


Long-period Ground Motion

When long-period ground motion occurs in a high-rise condominium, slow and large swaying occurs, which can cause furniture to fall over.

If an earthquake occurs (regular preparation)

It is important to always be prepared in case an earthquake occurs.



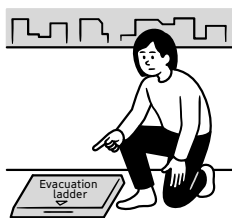
Ensure your home's safety and secure furniture

Secure the furniture in your home to ensure safety in the event of an earthquake. Using fittings such as L-brackets provides greater safety. Pole devices (tension rods) can also be used in rental housing where the walls cannot be damaged, or on walls with a light-gauge steel substrate.

➔ Page 48

Secure evacuation routes and check emergency stairs

Do not use an elevator when moving from floor to floor during an evacuation, and instead use the emergency stairs. This is because even if the elevator is working, there is a possibility that it will stop suddenly due to the earthquake detection sensor functioning, a malfunction, or power outage, and you may become trapped. Confirm the location of the emergency stairs in advance.



Evacuation ladder

Evacuation ladders are installed in condominiums as an emergency escape route from the evacuation hatch on the floor of the balcony. Confirm in advance where they are located on your floor.



Breakable wall

If a disaster occurs, kick or strike with a hard object the balcony wall that has a sign which says "Break here to evacuate in an emergency" in order to pass through it. Do not place anything in front of the breakable wall.

Fire extinguishing (fire extinguisher, fire hydrant)

The entire condominium may become uninhabitable if a fire or gas leak occurs in one unit. As preparation for a fire breaking out, regularly check the location of fire extinguishers and fire hydrants.



Stockpiling

The elevators in a condominium may stop working due to a major earthquake or power outage, making it difficult to get to and from the first floor. Therefore, it is recommended that each residence stocks up on one week's worth of water, food, and daily necessities in order to shelter at home.

Be prepared with "daily stockpiling"

The key to stockpiling is to always have a little extra of the items you regularly use (daily stockpiling). The items and quantities you need to stockpile will vary depending on factors such as the structure and age of your family. Use the Tokyo Stockpiling Navi to check what your family should stockpile and prepare accordingly.

➔ Pages 36-7

Emergency Bag

In preparing an emergency bag, it is important to think about what each of you would need, and select items to be put in the bag.

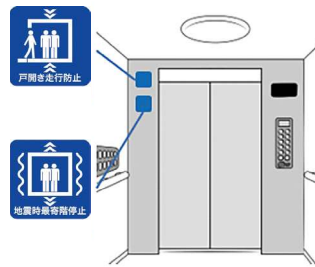
➔ Page 40

- Portable toilet
- Headlights
- Helmet (a foldable type is convenient)
- Raincoat
- Disaster preparedness whistle
- Towel
- Water (one or two 500ml bottles)
- Masks
- Jelly drinks, etc.
- First aid supplies
- Portable phone charger (dry cell type, solar rechargeable type)
- Water bag
- Dry-cell batteries
- Leather/rubber gloves

Responding to elevators and lifelines stopping

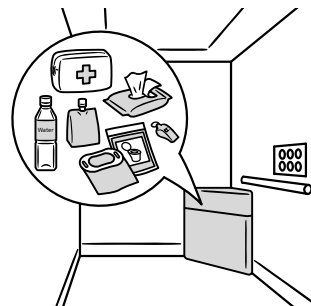
Elevator safety measures

In August 2012, the Ministry of Land, Infrastructure, Transport and Tourism began a voluntary system of displaying signs in an easily seen location inside elevators, so that general users can easily tell whether the elevator has a safety device installed or not. Check whether your condominium's elevators have such displays. When an elevator equipped with such a device detects an earthquake, it immediately stops at a nearby floor and opens its doors. If your building's elevators do not have such a device, if an earthquake occurs be sure to press the buttons for all floors to stop the elevator immediately.



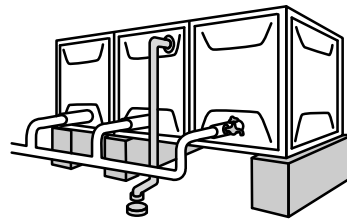
Install an emergency cabinet

Install an emergency cabinet and stock it with drinking water, food, portable toilets, etc. on the assumption that people may be trapped in the elevator for a long time.



Secure water in a condominium

In condominiums, if the water is cut off for an extended period of time, it will be difficult to secure drinking water and water for daily use, making it difficult to shelter at home. Therefore, consider ways to secure water for your building, such as underground water tanks or elevated rooftop water tanks.

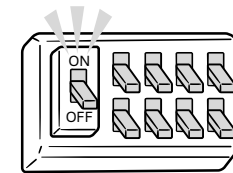


Source: Building Performance Standardization Association, <https://www.seinokyo.jp/evs/sm/>

Respond to power and gas outages

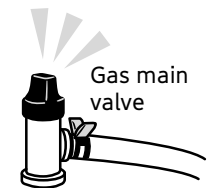
If a power outage occurs during a disaster, unplug appliances and turn off the circuit breaker.

* If the power is left on, it may cause a fire when the power is restored. Also consider installing an earthquake-tripped circuit breaker. ➔ Pages 82, 88



Circuit breaker

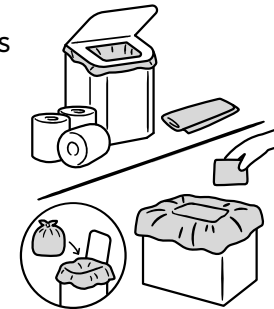
If strong shaking or a gas leak is detected, the micom-meter (intelligent gas meter) will automatically shut off the gas. A micom-meter is installed inside the meter door, in the common hallway next to the entrance.



Gas main valve

Prepare portable toilets

After a disaster, if a resident on an upper floor uses the toilets without noticing that the sewage pipes are damaged, sewage will overflow on the floors below. Do not use the toilet until the pipes have been checked. Do not forget to prepare portable toilets and emergency toilets in your disaster stockpile.



➔ Page 42

Promote mutual assistance

There are many people living in a condominium. If there is a problem, consulting with and helping each other is a great source of strength.

Improve disaster preparedness

Be familiar with each other

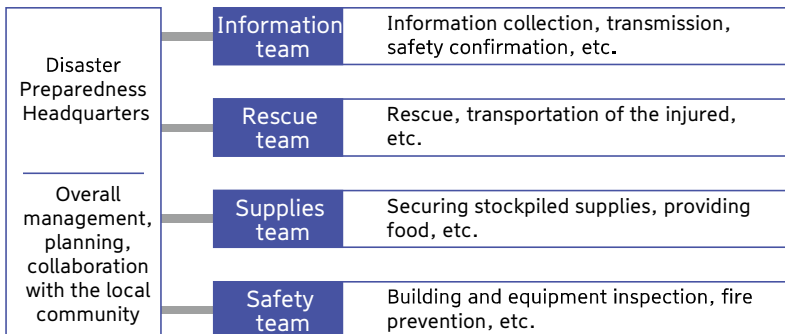
Building face-to-face relationships by exchanging greetings regularly and participating in events and joint activities will provide strength in an emergency. Knowing in advance whether there are elderly people, people with physical disabilities, infants, etc. will make it easier to confirm their safety and provide support for them to live in the event of a disaster.



Form a disaster preparedness organization

A variety of responses are required after a disaster, including information gathering, relief, procurement of supplies, and ensuring safety. Creating an organization by dividing up the roles among everyone will be of assistance.

Organization chart (example)



Disaster preparedness manual

It is important to decide in advance what actions each person should take when a disaster occurs. Compile the details into a manual and share it with all residents. Consider the details based on the circumstances of your condominium, such as its size, structure and location.

Large condominiums:

Equipped with a disaster preparedness office and equipment, and often have a manager permanently on site. Activities should be conducted at the block level.

Small, medium condominiums:

Often not equipped with a disaster preparedness office or equipment, and the manager is not on site on weekends or at night. The role of each resident should be identified.

Rental condominiums:

Consider establishing a communication system centered around the management company.

Stockpiling by the condominium as a whole

For condominiums, the management association should create a disaster preparedness manual and make sure there is a stockpile of portable toilets, etc. (at least one week's supply). An emergency supplies storeroom should also be set up on each floor or every few floors.



Make sure these goods and equipment are prepared!

- | | |
|--------------------|--|
| ▫ Rescue set | Fire extinguishers, generators, carts, jacks, saws, axes, pickaxes, rescue ropes, etc. |
| ▫ First aid set | Bandages, slings, disinfectant, gauze, etc. |
| ▫ Flashlights | Prepare spare batteries too |
| ▫ Elevator cabinet | Water, food, portable toilets, flashlights, radios, cold weather clothing, etc. |

Disaster preparedness drills in condominiums

In addition to initial firefighting drills, first aid drills, rescue drills from upper floors, and evacuation drills, which raise disaster preparedness awareness throughout the condominium, it is also effective to conduct tours of the equipment that residents don't usually get to see, such as water tanks and power generators, and explain how to use them in the event of an earthquake.



Residents' list

Ascertain who may especially need help in the event of a major earthquake. If a list of residents cannot be prepared, cooperate with the manager to identify those who require special consideration.



If it is difficult to form a disaster preparedness organization, such as in rental housing

Even in cases where there is no management association or disaster preparedness organization, such as in rental housing, residents must carry out the emergency disaster response themselves. Although it may not be possible to organize immediately, it is important from the perspective of disaster response that, in addition to building a communication system centered on the management company, residents get to know each other, such as through greeting each other.

Tokyo Todomaru Condominiums

The Tokyo Metropolitan Government registers and publishes information on privately-owned and rental condominiums in which disaster preparedness measures having been taken that make it easy to continue living in after a disaster, such as securing an emergency power source so that elevators and water pumps can operate in the event of a power outage, the creation of a disaster preparedness manual, and stockpiling of goods.



Todomarukun

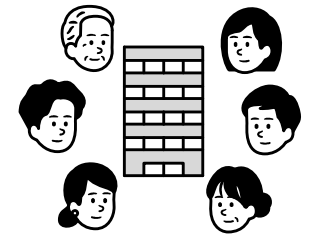


Collaboration with the local community is essential

Cooperation with the local community is essential to further enhance disaster preparedness capabilities. Deepen your interaction by regularly participating in local events such as disaster preparedness drills.



One way to promote cooperation with the local community is to join the neighborhood association, or form a neighborhood association to connect with the community. Participating in neighborhood association activities is not only about interaction, but also leads to being able to help each other in a disaster and crime prevention.



For large condominiums, considering the creation of a neighborhood association and promoting community formation is an effective way to prepare for disasters. If you live in a small or medium-sized condominium or rental housing where it is difficult to form a standalone neighborhood association, consider joining a nearby neighborhood association.

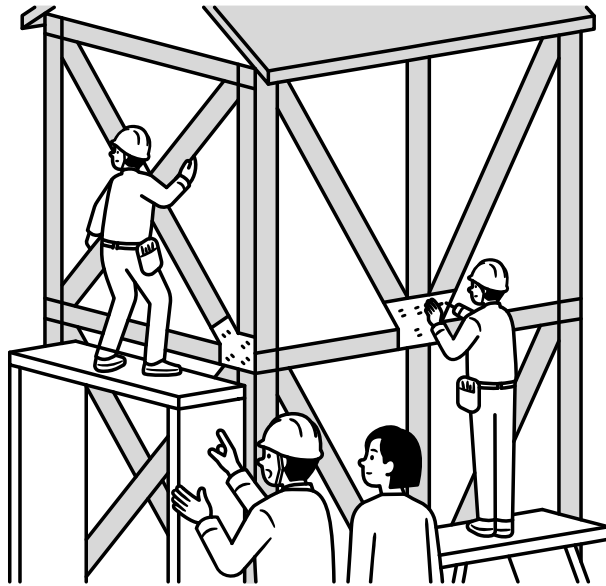
Utilization of common areas

Common areas can be used for various purposes, including as the location of the disaster preparedness headquarters, a place for residents to stay when elevators are stopped, a place to temporarily store disaster supplies, and a place to collect disaster garbage outdoors. Also consider establishing rules for opening common areas up to the community if nearby evacuation centers are full.





Seismic Retrofitting a Detached House



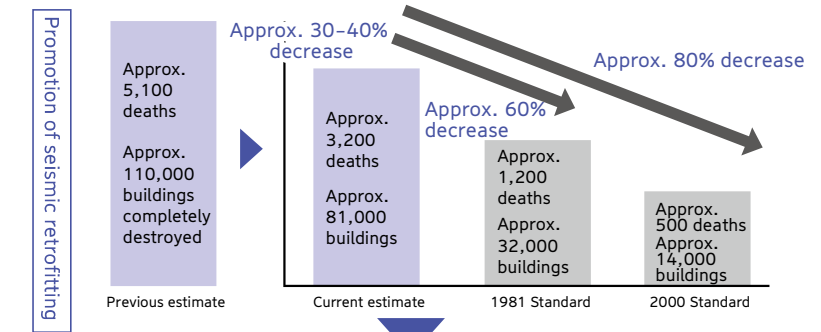
Importance of seismic retrofitting to prevent being crushed to death

Some 90% of the people who were killed in the Great Hanshin-Awaji Earthquake were due to collapsed buildings or furniture falling over. It is said that buildings that were constructed over 40 years ago, before revisions to the building code for seismic resistance came into effect on June 1, 1981, have low safety against a major earthquake. It is also recommended to check the safety of wooden buildings whose construction began between June 1, 1981 and May 31, 2000. People living in detached houses should have their home inspected for seismic resistance.

Damage reduction effect of seismic retrofitting (disaster prevention and mitigation measures)

The diagram below is an estimate of the damage reduction effect if seismic retrofitting measures continue to be taken, based on damage estimates for detached houses built prior to the revision of the Building Standards Law Enforcement Order in 1981. Compared to the previous estimates, the number of deaths (damage to buildings due to shaking) and the number of completely destroyed buildings will decrease by 30-40% by promoting the increase of the rate of seismic retrofitting of houses to 92%. It is expected that the number of deaths and the number of completely destroyed buildings can be significantly reduced through further promotion of countermeasures; the seismic retrofitting of 100% of houses built to the 1981 standard will result in a reduction of approximately 60%, and the seismic retrofitting of 100% of houses built to the 2000 standard will result in a reduction of approximately 80%.

(Winter, evening, wind speed 8m/s)



Promoting various countermeasures can significantly reduce the damage.

- Large Earthquake 1
- Large Earthquake 2
- Typhoon, Heavy Rain
- Other Disasters
- For Diverse People
- Survival Tips
- Disaster Knowledge

Seismic resistance checklist

First, check your seismic resistance by yourself using the following list. If a lot of the check points apply to your house, have a professional conduct a seismic inspection.

- The house was built before June 1, 1981

- The house is a wooden house built between June 1, 1981 and May 31, 2000

- New extensions have been built two or more times.
A section of the wall or column was removed for the extension

- The house has suffered major damage from flooding, fire, or an earthquake in the past

- The house is located on reclaimed land, swampy lowland, or developed land

- The building's foundation is made of something other than reinforced concrete

- A window makes up a whole wall

- Relatively heavy roofing materials such as Japanese tiles or western tiles are used, and the ground floor has few walls

- The building is an L-shape or T-shape, and has an uneven structure

- There is a large atrium

- It seems like the doors and windows are badly fitted, and the pillars and/or floor are tilted

- There is a crack in a wall

- The veranda or balcony is damaged

Tokyo Metropolitan Seismic Certification Mark

So that Tokyo residents can feel safe using buildings, this mark shows the safety of the building against earthquakes. Buildings with this mark have been confirmed to comply with seismic resistance standards.



Seismic Retrofitting Consultation Desk

The Tokyo Metropolitan Government has established the Tokyo Disaster Preparedness and Architectural Community Building Center as a consultation desk for seismic retrofitting. General and specialist consultations are provided free of charge, and an advisor may also be dispatched. Some municipalities have programs to subsidize part of the costs of seismic inspections and retrofitting.



[Seismic Retrofitting Consultation Desk]

Consultations are conducted online, in addition to by telephone, email, fax, and in-person. For an in-person consultation, come to the office and consult with a specialist. Please call to make a reservation before visiting.

〒160-8353

2nd Floor, Odakyu Nishi-Shinjuku O-PLACE, 7-7-30 Nishi-Shinjuku, Shinjuku-ku, Tokyo

Tel: 03-5989-1470

Email: taishin@tokyo-machidukuri.jp



Tokyo earthquake-resistant portal site

Fire Prevention Measures



Importance of measures to prevent the outbreak and spread of fires

It is critical to prevent the outbreak of fires and stop their spread. To equip your house with fire extinguishers, household fire alarm systems, ground fault circuit interrupters, and earthquake-tripped circuit breakers are also said to be effective. When evacuating, close the main gas valve, and turn off the circuit breakers.

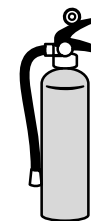
Use a fire extinguisher to fight a fire that breaks out

Extinguishing fires quickly is very important, as can be seen from the fact that about 10% of the deaths in the Great Hanshin-Awaji Earthquake were caused by fire. If you discover a fire, use a fire extinguisher or bucket to extinguish the fire while it is still small. However, remember that your safety comes first when fighting a fire. If the situation seems dangerous, such as the flames reaching the ceiling, stop trying to extinguish the fire and evacuate the area. When evacuating, don't forget to close the door to slow down the spread of fire due to the suffocation effect!



Install a fire extinguisher

There are two types of fire extinguisher agents, water and alkali salt, and powder. There is also an even more simple and compact aerosol spray type. The expiration period differs by type, so be sure to note the date and replace them accordingly. Keep them where you can easily get your hands on them, such as near the kitchen, in the hallway, or by the front door.



Fire extinguisher disposal

It is recommended that the following fire extinguishers are inspected, disposed of or recycled.

- (1) Fire extinguishers that have exceeded their expiration period
- (2) Rusty or corroded fire extinguishers
- (3) Fire extinguishers with large scratches or deformation

To dispose of a fire extinguisher that is no longer needed, contact your local municipality or the Fire Extinguisher Recycling Promotion Center (Tel: 03-5829-6773). Fire departments do not dispose of fire extinguishers.



Fire Extinguisher Recycling
Promotion Center

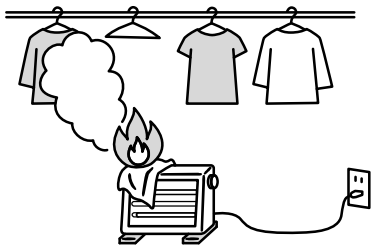
* Contact your local government regarding the disposal of aerosol fire extinguishers.



Installing an Earthquake-tripped Circuit Breaker

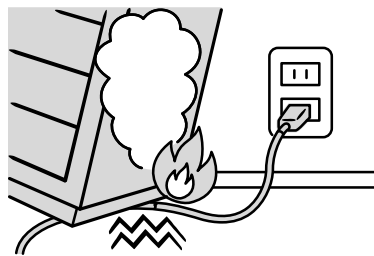
Approximately 60% of fires that occur after an earthquake are said to be caused by electricity, including fires from electrical equipment caused by the earthquake's shaking and fires that occur when power is restored. One way to prevent such fires is an earthquake-tripped circuit breaker that detects the strong shaking of an earthquake and automatically shuts off the electricity. Earthquake-tripped circuit breakers are an effective method for preventing electrical fires if you are unable to trip the breaker or unplug electrical appliances due to not being at home or having to evacuate urgently when the earthquake occurs.

Examples of electrical fires following an earthquake



Fire immediately after an earthquake

The shaking of the earthquake causes a flammable material to fall or come into contact with an electrical appliance, causing a fire.



Fire after power is restored

If the power cord is damaged, a fire will occur when the power is restored after a power outage.

Types of earthquake-tripped circuit breakers

There are different types such as socket types, distribution switchboard types, and simple types, with various things to consider when using them, such as securing lights during a power outage, and regular inspections. Please install the appropriate type, taking into account the characteristics and precautions of each product.

Precautions when installing an earthquake-tripped circuit breaker

Prepare for a power outage

It is important to prepare flashlights and lights that automatically turn on when the power goes out, so that you can see an evacuation route in the dark in case the power goes out at night. Also, if you have medical equipment, prepare extra batteries in case of a blackout.

Confirm safety before restoring the power

When using electricity again after an earthquake-tripped circuit breaker has been activated and the shaking has subsided, be sure to check that there are no gas leaks and check the safety of electrical appliances beforehand. If you notice a burning smell after the power is restored, you should immediately trip the breaker, check the safety again, and stop using the electricity if you cannot identify the cause.

Mandatory Fire Alarm Systems

Early detection of a fire is the first step in extinguishing it while it is still small. A fire alarm is a device that sounds an alarm if it detects smoke or heat, thereby alerting you quickly to the outbreak of a fire. Within the jurisdiction of the Tokyo Fire Department (the entire Tokyo metropolitan area, excluding island areas and Inagi City), all residences are required to have fire alarms installed, pursuant to the Fire Prevention Ordinance.

Replace the device every 10 years

Fire alarms that were installed many years ago may fail to detect a fire due to aging. Check the installation date and replace the device if 10 years have passed since its installation.

Be sure to install fire alarms

As a general rule, a smoke-type fire alarm should be installed. However, a thermal fire alarm can be installed if there is a risk of detecting smoke that comes from a source other than a fire, such as in the kitchen. Fire alarms can be purchased at stores that sell disaster preparedness equipment, electronics stores, home centers, and electronics retailers.

Fire alarm installation locations

Fire alarms must be installed on the ceiling or wall of each room, including the dining room, living room, children's room, and bedrooms, as well as stairs and the kitchen.

* The bathroom, toilet, washroom, storage room, etc. are not included.

* Installation is not required in a room that has automatic fire alarm equipment or sprinkler equipment.

Fire prevention checklist

There are three main causes for the outbreak of fire at the time of an earthquake: fire from electrical current leaks or when power is restored, fire from gas leaks, and fire from oil stoves. Inspect your house for fire prevention and take measures to prevent fires from occurring.

- | | |
|-------------|--|
| Electricity | <ul style="list-style-type: none">□ Carpet or furniture is not covering the power cords□ Electrical appliances not in use are unplugged□ Fish tanks, flower vases or other containers of water are not located near electrical appliances□ You know where the circuit breaker panel is |
| Gas | <ul style="list-style-type: none">□ Propane gas tanks are fixed with chains, etc., to prevent them from falling over□ In the case of city gas or propane gas, the micom-meter (intelligent gas meter) is still within its period of validity□ The space around the kitchen range is not cluttered, and has no flammable objects□ The gas hose is not degraded |
| Oil stove | <ul style="list-style-type: none">□ There are no flammable objects around the oil stove□ The oil stove has a safety device |
| Other | <ul style="list-style-type: none">□ No flammable objects are placed in locations that could be evacuation routes such as the hallways or stairs |



Government Measures to Prevent the Outbreak and Spread of Fires

Fire-safe areas

The Tokyo Metropolitan Government has designated “fire-safe areas” where there is no fear of large-scale spread of fires and no need for area-wide evacuation. As of July 2022, 40 areas and approximately 11,500 hectares have been designated where fireproofing has progressed, including the whole of Chiyoda ward and the Ginza and Nihonbashi areas in Chuo ward.

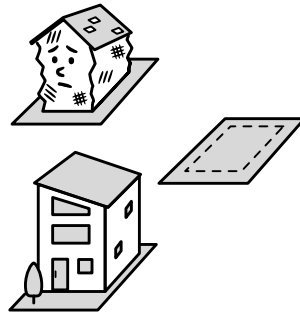


Special fireproofing zone system and designated routes for improvement initiatives

The Tokyo Metropolitan Government is carrying out focused and intensive efforts until FY2025, targeting development areas that are expected to suffer particularly severe damage in the event of an earthquake, and is implementing the following initiatives to turn dense wooden housing areas into towns where fire will not spread or burn.

Special fireproofing zones

The Tokyo metropolitan government and municipalities are working together to promote the fireproofing of buildings by designating areas that need particularly focused and intensive improvement as special fireproofing zones, and providing subsidies to promote rebuilding and reductions and exemptions for fixed asset taxes and city planning taxes. Initiatives are underway in 52 zones, covering approximately 3,350 hectares (as of April 2021).



Designated routes for improvement

In order to achieve “towns where fire does not spread” in development areas, city-planned roads under the Tokyo metropolitan government’s jurisdiction that are effective in improving disaster prevention, such as blocking the spread of fire, evacuation, and rescue, were selected as designated routes for improvement in 2012, and development is progressing in 28 sections, totaling approximately 25 km in length. A consultation desk using private business operators has been set up for the development to provide support for rebuilding lives based on the wishes of the rights holders concerned, such as providing information on relocation locations and proposing plans for the rebuilding of buildings.

Dense wooden housing areas

These are areas where wooden houses are densely packed, and are distributed over a wide area centered on the outer periphery of the JR Yamanote Line. Under the Tokyo Metropolitan Government’s Disaster Preparedness City Development Promotion Plan, supporting initiatives are currently continuing with the aim of creating a safe and secure city that is earthquake-resistant by not burning or collapsing.



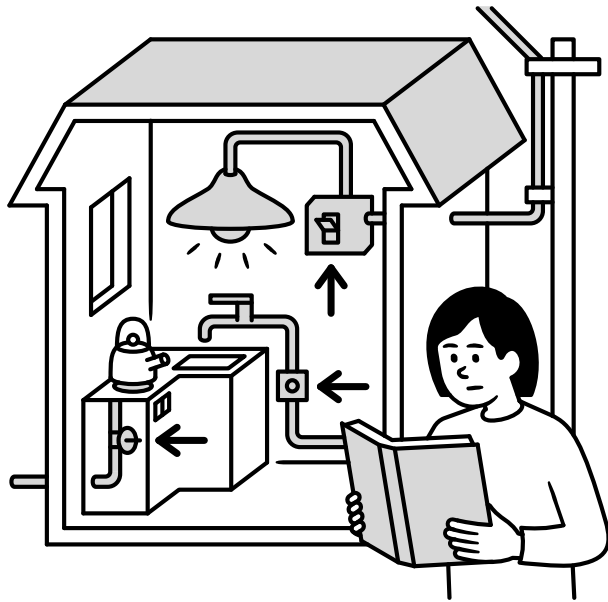
“Special Fireproofing Zones”: [Tokyo Metropolitan Government Bureau of Urban Development website]



“Designated Routes for Improvement”: [Tokyo Metropolitan Government Bureau of Construction website]



Checking Electricity, Gas and Water Supply



Check how to shut down and restore supply

In an earthquake, the supply of electricity, gas, and water may stop. When you evacuate, turn off your circuit breakers, close the gas valve, and close the main valve of the water meter. Confirm where these are in advance, and learn how to turn them off and turn them back on.



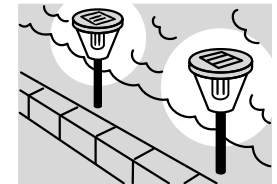
Preparing for Power Outages

Prepare for power outages by incorporating solar lights into your life

Solar lights are disaster preparedness goods that are powered by sunlight and do not use any electricity. Incorporating lights that do not require batteries or fuel into your regular life will come in handy when there is a power outage due to a disaster. Garden solar lights that are inserted into the soil are recommended for detached houses with a garden. If you live in an apartment, choose a wall-mounted type or lantern-type that can be installed on the balcony. As they are easy to carry, they can be brought inside and used as a light in the event of a disaster.



Lantern type



Inserted type

Keep your car's gas tank full

In the event of a disaster, a car is useful not only as a means of transportation for evacuation, but also as an excellent disaster preparedness tool. You can gather information or charge your smartphone by starting the engine. For this reason, it is a good idea to always keep your gas tank full. After a disaster, infrastructure is disrupted and it is difficult to acquire fuel. It is a good idea to fill up the tank when it is about half full.

Keep both solar-powered and battery-powered smartphone chargers

Smartphones are essential for communicating and gathering information in a disaster. It is important to always carry a charger with you. In addition to getting into the habit of putting a charged portable phone charger in your bag, prepare a portable solar panel or battery-powered charger for long-term evacuation.

Source: "Introduction to Disaster Preparedness" (Supervised by Nobue Kunizaki, edited by Creative Suite, Natsumesha, 2021)

🏠 Preparing for Gas Outages

Respond to a gas outage

After an earthquake, you can check the status of gas supply and restoration in your area via the “Gas Service Restoration Map.” (Available in English, Chinese, Korean, and Spanish)

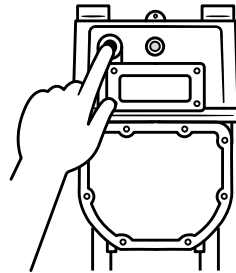


English page



Gas Service Restoration Map

A gas micom-meter automatically shuts off the gas supply when it detects a gas leak or an earthquake with a seismic intensity of 5 or higher. After that, you can restart the gas supply yourself by performing a simple reset operation. First, check the status of gas supply restoration in your area using the Gas Service Restoration Map mentioned above, then follow the steps below.



- ① Turn off all gas appliances.
- ② Remove the cap from the restore button.
- ③ Press the restore button firmly and slowly release it.

* If the gas is not restored after performing the above steps, please call Tokyo Gas Network at 0570-023388.

* This applies to houses where city gas is supplied from the Tokyo Gas Network.

Secure heat sources in case the gas is cut off

In situations where lifelines have been cut off, water shortages can cause deterioration in the sanitary environment, so it is important to cook food to prevent food poisoning.

Prepare a portable gas cooking stove

Be sure to have at least one portable gas cooking stove, which is the easiest to use as a heat source during a disaster, so you can have hot meals.

🏠 Preparing for Water Outages

Emergency Water Supply Station

In Tokyo, there is an emergency water supply station within a radius of approximately 2 km. Check the location of stations near your home in advance. When using a station, you must bring your own water container and transportation equipment.

How to store tap water

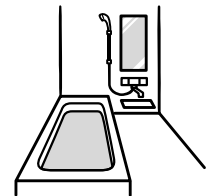
Store for drinking water

When collecting water, fill a clean container such as a plastic bottle to the brim with tap water. It can be used as drinking water for about 3 days if kept away from direct sunlight.



Store for domestic use

A regular household bath can hold approximately 180 liters of water. If the bathtub is kept filled with water, it can be used for daily life such as washing, cleaning, the toilet, and watering.



Stay clean with less water

Wipe your body using a small amount

By wiping your body with a towel soaked in a cleaning agent, you can keep yourself clean without using much water.



Brush your teeth without a toothbrush

Wrap a 15 cm square piece of gauze or tissue paper around your finger and rub your teeth until the feeling of roughness disappears. Wipe your gums and tongue as well, then rinse with water.



Evacuating with a Pet

Care for pets as an owner and family

It is not only humans who are affected by a disaster. Pets are also susceptible to falling ill during the difficult circumstances of life during evacuation. To prevent pet-related problems during evacuation, it is necessary to make preparations such as ensuring they are trained. A pet must be protected by its owner. Think now about what you can do as a pet owner. Additionally, each area has different policies regarding evacuation with pets, so it is important to check the local disaster prevention plan.

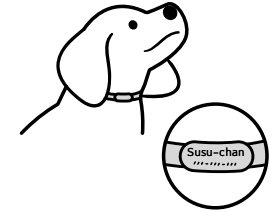
Think about your pet when evacuating

If possible, evacuate with your pet. However, it is not always possible to live with your pet at an evacuation center. In particular, it may be difficult for animals other than dogs, cats, and small birds to be accepted. Please follow the rules of the evacuation center. However, if your home is safe and you are able to return regularly to care for your pet, then not taking your pet to the evacuation center is also an option. It is also a good idea to look in advance for a place which can look after your pet, other than the evacuation center and your home.



Pet health and identification is important

The immune system of a pet also weakens during life in evacuation, so be sure to take good care of its regular health, including vaccinations and parasite prevention and removal. Also, in case your pet gets lost, it is also important to identify it with a name tag or microchip, and take and save a photo of your pet. For dogs, be sure to attach a name tag and rabies vaccination tag to its collar.



Bring your own pet supplies

Stock up on food, water, medicines, toiletries, etc., as well as its favorite toys for stress relief. Also, don't forget to prepare a cage or carrier bag in case you have to evacuate with your pet.



Daily training is important

Daily training is essential to prevent problems with pets. Daily training will also help alleviate the animal's stress in an emergency.

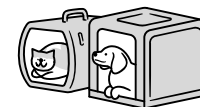


Teach your dog basic commands such as "stay" and "lie down" and train them not to bark unnecessarily.



Train it to use a designated place for the toilet

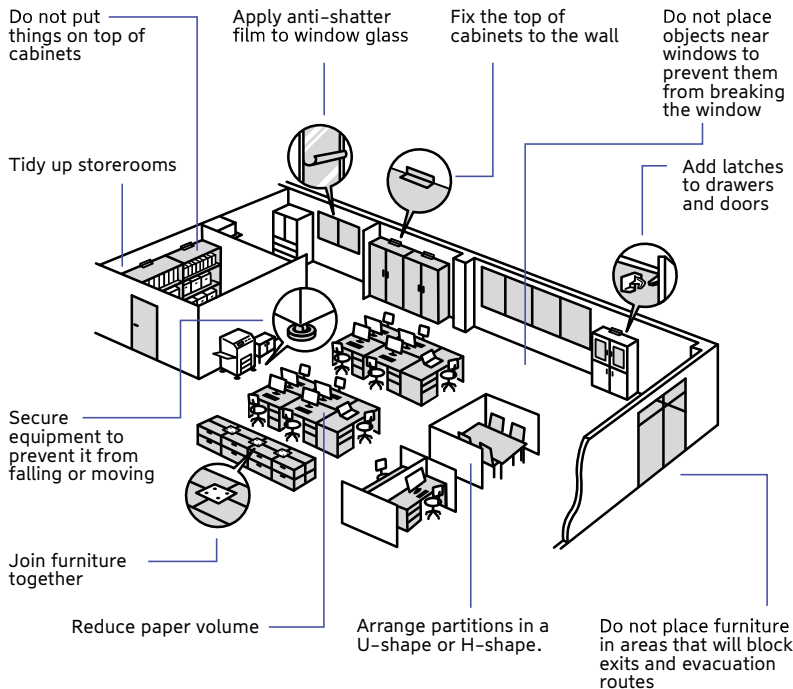
Train it to not be afraid or aggressive towards people or animals



Have it get used to being in a carrier

Disaster Preparedness at Work

We do not know when a disaster will occur. Therefore, disaster preparedness at work is just as important as at home. Promote safety within your company to prevent injuries to customers and employees. It is also important to keep corridors and emergency stairs clear of obstructions.



Prepare emergency supplies and disaster response goods and equipment

It is necessary to prepare the equipment that will be needed in the event of a disaster, decide where to store it, and have it ready for use at any time. Flashlights, generators, and three days' worth of drinking water, food, portable/emergency toilets, hygiene products, and blankets per person should be prepared in case of power or water outages.

Create a manual and rules

At your company, decide on persons to be in charge of disaster preparedness, hold a disaster preparedness meeting, and make rules such as how to confirm the safety of employees and facility users, how to conduct safety inspections of facilities, how to evacuate, where to evacuate to, and an emergency contact list. Also, identify whether there are any tasks that must be continued as a priority even in an emergency. Since the general rule on returning home following a major earthquake or disaster is to avoid moving unnecessarily and to wait until after 72 hours have passed, prepare a stockpile of supplies and equipment for employees and visitors to your office.



Have preparations led by a Workplace Disaster Preparedness Leader

Disaster information is sent by the Tokyo Metropolitan Government to Workplace Disaster Preparedness Leaders.



Utilize the “Workplace Disaster Preparedness Leader” system to promote disaster preparedness measures within your company’s sites. By registering the person in charge of disaster preparedness at each business site as a Workplace Disaster Preparedness Leader, they can directly receive disaster-related information sent by the Tokyo Metropolitan Government using their registered email address or LINE account. In addition, a variety of disaster preparedness content can be referred to through the dedicated office page prepared by each Workplace Disaster Preparedness Leader.

Tokyo Metropolitan
SME Support
Center’s BCP
formulation support
project





Learning About Disaster Preparedness



Participate in drills

In order to minimize damage in the event of a disaster, it is important for every resident in the area to learn about disaster preparedness. In addition to participating in local disaster preparedness drills and touring disaster preparedness centers and disaster experience facilities in Tokyo, experiencing a disaster preparedness camp at home is also a great drill.



Disaster drills held by the Tokyo Metropolitan Government

Each year, the Tokyo Metropolitan Government and the municipalities jointly hold comprehensive disaster drills with resident participation.



Disaster drills held by municipalities

Municipal governments conduct drills by school district or evacuation center that several thousand people participate in. They are mainly held at public schools.

Disaster drills held by neighborhood associations

Centering on first response fire fighting and first-aid training, these drills include rescue and relief drills, communication drills, evacuation drills, and drills to protect yourself using an earthquake simulator.

Condominiums, companies, welfare facilities, etc.

Disaster preparedness drills in condominiums

In addition to initial firefighting drills, first aid drills, rescue drills of people trapped in elevators, and evacuation drills, which raise disaster preparedness awareness throughout the condominium, it is also possible to conduct tours of the equipment that residents don't usually get to see, such as water tanks and power generators, and explain how to use them in the event of an earthquake. In rental condominiums, disaster prevention drills may be conducted by the management company.



Company disaster preparedness drills

Companies should conduct disaster preparedness drills with the same goal of ensuring safety in the event of a disaster, but also for the purpose of continuing business operations. It is effective to conduct disaster preparedness drills from the perspective of how quickly the organization can be returned to its pre-disaster state after ensuring safety.



Disaster preparedness drills at welfare facilities, etc.

At small social welfare facilities and medical institutions used by people who are unable to evacuate on their own, facility staff should conduct the initial response in the event of a disaster. Although there are restrictions on the personnel and time that are available, regular disaster preparedness drills are important for firefighting and guiding residents to evacuate smoothly.



Cooperation between residents and businesses is important

It is important for neighborhood associations, condominiums, and businesses to work together in the event of an earthquake disaster to prevent the damage from increasing. Build a cooperative structure by making agreements between groups and work together to conduct firefighting drills, rescue drills, and equipment handling drills.

Source: Rescue Now "What are the differences between disaster drills conducted by companies and local governments for citizens?"
https://www.rescuenow.co.jp/blog/column_20230524#646733a4cd72ce03707f2461-1684494101204
Ministry of Internal Affairs and Communications, Fire and Disaster Management Agency, "Smooth evacuation of residents with limited personnel"
<https://www.fdma.go.jp/mission/prevention/items/manual.pdf>

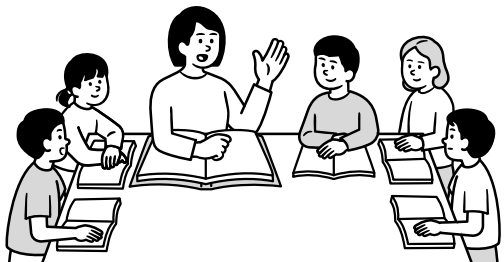
Visit disaster education facilities

There are facilities in Tokyo where you can have a realistic experience of a major earthquake and wind and flood disasters, and learn about disaster preparedness. Learn the necessary disaster preparedness knowledge and think about how you will act in a disaster and how to prepare in advance. Disaster preparedness experience tours and events are also held (reservations are required). There is also Japan's only library that is dedicated to disaster preparedness.

[List of facilities]

Ikebukuro Life Safety Learning Center	03-3590-6565
Honjo Life Safety Learning Center	03-3621-0119
Tachikawa Life Safety Learning Center	042-521-1119
Tokyo Fire Department Firefighting and Disaster Prevention Reference Center (Fire Museum)	03-3353-9119
Shinagawa Disaster Preparedness Experience Center	03-5742-9098
Tokyo Kita Ward Disaster Preparedness Center (Earthquake Science Museum)	03-3940-1811
Nerima Disaster Preparedness Learning Center	03-5997-6471
Sona Area Tokyo (Tokyo Rinkai Disaster Prevention Park Management Center)	03-3529-2180
Meteorological Science Museum	03-6758-3900 (Japan Meteorological Agency main line)

* There are also other disaster preparedness learning facilities than those listed in the list of facilities.



Experience disaster preparedness at a Life Safety Learning Center

The Tokyo Kita Ward Disaster Preparedness Center (Earthquake Science Museum) has facilities that use seismic equipment to recreate the shaking of major earthquakes that actually occurred in the past, so you can experience the shaking. You can also experience the situation inside a room filled with smoke from a fire, as well as initial firefighting training. The Tokyo Fire Department's Life Safety Learning Centers are also experiential facilities where both adults and children can have fun learning about earthquakes and fires.

Disaster prevention education portal site for "Let's go to disaster preparedness experience facilities in Tokyo."

Scan here for information on how children can properly learn about disaster preparedness, such as facilities for experiencing and learning about disaster preparedness.



Learn how to survive a major earthquake at Sona Area Tokyo

At Sona Area Tokyo, the disaster prevention experience-learning facility located in the Tokyo Rinkai Disaster Prevention Park, the "Tokyo Direct-Hit Earthquake 72h Tour" is held from time to time. It is a disaster prevention experiential learning tour where you can learn how to survive on your own during the first 72 hours after a major earthquake, which is said to be the approximate time it will take until support systems from the national and local governments are fully in place.

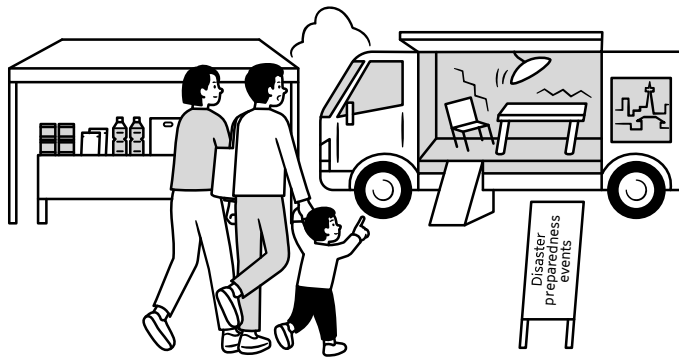
Sona Area Tokyo

3-8-35 Ariake, Koto-ku, Tokyo
03-3529-2180
(Tokyo Rinkai Disaster Prevention Park Management Center)



Source: Tokyo Metropolitan Board of Education disaster preparedness education portal site
<https://www.anzenedu.metro.tokyo.lg.jp/bosaikyoku/>

Attend disaster preparedness events



As many disasters occur in Japan, the opportunities to attend disaster preparedness-themed exhibitions and events are increasing. There are a variety of opportunities, from exhibitions that introduce the latest disaster preparedness systems and equipment for local governments and companies to events that you can enjoy and participate in with your children and loved ones, and they are effective in increasing your interest in and deepening your knowledge of disaster preparedness.

Disaster preparedness events held by the Tokyo Metropolitan Government

The Tokyo Metropolitan Government holds disaster preparedness events every year to deepen residents' understanding of self-help and mutual assistance, and to promote preparation for disasters such as an earthquake directly hitting Tokyo.



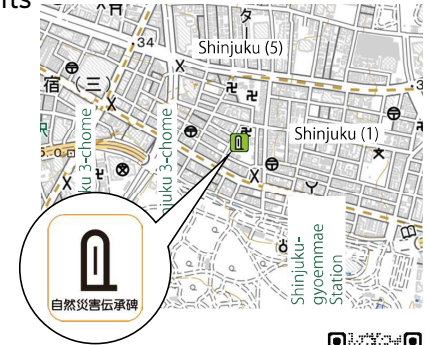
(Image from a disaster preparedness exhibition)

Search for natural disaster monuments

Natural disaster monuments are monuments erected by our ancestors who survived disasters and preserved their experiences in stone monuments for future generations. Disasters occur repeatedly throughout history, so it is very important to know and utilize the history and past experiences of your area.

Example of the new map symbol for natural disaster monuments

The Geospatial Information Authority of Japan is currently collecting information on natural disaster monuments across the country, and announced it as a new map symbol in 2019. In addition to being displayed on the GIA's maps, you can also view the natural disaster monuments in each prefecture on the GIA's website, which is updated from time to time.



Natural disaster monument

Learn about local traditional legends

Are there any legends in the area where you live, such as “don't cross the bridge in the morning if there's thunder” or “a huge tsunami comes the year after a huge catch”? Knowing the legends passed down among residents will help improve your disaster preparedness awareness.

Source: Created from the Geospatial Information Authority of Japan's "Geographical Survey Institute Map (light color map)"
Map symbol source: Geospatial Information Authority of Japan website
<https://www.gsi.go.jp/KIDS/map-sirn-tizukigou-2022-shizensaigaidenshouhi.htm>



Understanding Disaster Volunteers


Disaster Volunteers

Disaster volunteers are supporters who willingly take on restoration and recovery activities in the event of a disaster such as earthquakes, tsunamis, and wind and flooding from typhoons. You may have a strong image of volunteers conducting activities such as removing rubble and garbage at the stricken site, helping out at evacuation centers, and transporting and distributing relief. But their activities cover a broader range, including providing mental care to the disaster survivors, holding consultations and study meetings on rebuilding life, and providing information over the Internet.

Fundamentals of volunteer activities

Disaster survivors can request various kinds of support from volunteers working in the disaster-stricken area, such as removing rubble. However, volunteers are volunteers. Depending upon the details of the request, they may not be able to assist. It should be understood that they will not always respond to requests when, for instance, it could be dangerous or if there are not enough volunteers.

Disaster Volunteer Center

The Disaster Volunteer Center is a hub of volunteer activities to be installed in the event of a disaster. In general, organizations, such as the social welfare council of the affected area, are responsible for the operation of the Disaster Volunteer Center in cooperation with administrative officials, NPOs and volunteers for smooth volunteer activities.  Page 145

Main activities

- Collecting and comprehending the needs of the disaster site
- Preparing and loaning out needed tools
- Preparing to receive and take in people wishing to volunteer
- Feeding back and reporting on the results of activities and matters that were noted during activities
- Adjusting the number of volunteers according to needs, and arranging their activities
- Discussion on points to be improved

Tokyo Fire Department (TFD) disaster volunteers

The TFD disaster volunteers are specialized volunteers who are registered in advance with the TFD to provide support in the event of a large-scale accident or natural disaster such as an earthquake with a seismic intensity of 6-lower or more in a district under the jurisdiction of the TFD. These volunteers assemble at their own initiative at the fire station where they are registered or at a nearby fire station and provide support for firefighting activities.



Details of activities

Activities after an earthquake, etc.

The following support activities are conducted under the guidance and advice of fire department personnel.

- Emergency relief activities
- Logistics support activities within fire stations (meal support activities, setting up temporary toilets, etc., providing directions for stranded commuters and others, etc.)
- Logistics support activities outside fire stations (transporting food and drinking water, setting up emergency water tanks, etc.)

Main regular activities

- Earthquake disaster preparation drills
- Instruction and support for fire prevention and disaster preparedness drills and first aid training conducted by the fire department for neighborhood associations

To register:

Visit the Tokyo Fire Department website for more information.



Volunteer Fire Corps

What is a volunteer fire corps?

Fire corps are firefighting organizations established by the special wards and municipalities. Fire corps play an important role not only in firefighting, but also as a cornerstone of local disaster prevention, including rescue operations and evacuation guidance in the event of earthquakes, wind and flood disasters, etc. Fire corps members have a different status from firefighters, and members of fire corps are people who usually have their own jobs, such as company employees or self-employed people, as well as local residents, such as housewives and students.



Treatment of fire corps members

The status of fire corps members is that of part-time (special position) local public servants. Upon joining a fire corps, you will be provided with activity uniforms and clothing, and you will have the opportunity to participate in seminars and training sessions to acquire the knowledge and skills necessary for fire corps activities. In addition, members are paid a fixed annual salary as well as compensation based on their performance at disasters and training which they attend. Meritorious service and accomplishments are recognized with awards from the Governor of Tokyo or the Fire Chief.



Activities during normal times

During normal times, training that simulates activities at disaster sites is conducted, and guidance is provided to local residents in first aid, firefighting training, and evacuation training. Fire prevention awareness activities are also conducted during disaster prevention week and local events. Vigilance activities are also conducted when festivals and events are held in the area.



Activities during a disaster

When a fire breaks out, fire corps members attend the scene from their homes and workplaces to fight the fire, and in the event of a large-scale disaster, they work with the fire department immediately after the disaster to carry out rescue and first aid operations. In the event of storm and flood damage, they carry out activities such as monitoring the water level of rivers.



Join a fire corps

Healthy people over the age of 18 who live, work, or go to school within Tokyo (qualifications vary by region) can join a fire corps. Use your power to protect the safety and security of your area. If you would like to join, please contact your nearest fire station (if you live in the 23 wards) or your local municipality (if you live in a municipality).

About joining a fire corp

You can apply to join a fire corp online. If you would like to join or are interested, please register using the QR codes below.



Scan here if you live within the 23 wards



Scan here if you live in a municipality

1

Preparation and Actions for a Mega Earthquake (2)

Nobody knows when or where a mega earthquake will occur. Use this chapter as a reference to simulate in advance what actions you should take in the event a disaster occurs while you are at home, at work, or out. By understanding the things to keep in mind when living in an evacuation center, you can avoid trouble without panicking after a disaster.

Voice from experience

The evacuation center was crowded and we didn't know when additional food aid would arrive. I once again realized the necessity of stockpiling food.

(50s, Great East Japan Earthquake)

Voice from experience

I didn't inform those around me when I evacuated, so I was classified as a missing person. I have decided that I will inform people of my destination before evacuating.

(60s, Iwate-Miyagi Nairiku Earthquake)



Voice from experience

After the earthquake, I got in my car to go and pick someone up, but the roads were congested and I had a hard time. I have decided not to use a car after an earthquake.

30s, Chuetsu Offshore Earthquake



The Moment an Earthquake Strikes and Evacuation Flow Chart

STEP 1 The Moment an Earthquake Strikes

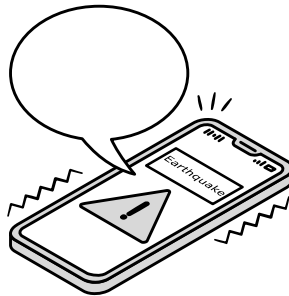
Protect yourself until the shaking stops

If you are far from the earthquake's epicenter, it will take some time for the shaking to begin. Therefore, stay still in a safe place and monitor the situation for at least one minute. Think about protecting yourself first during the shaking.



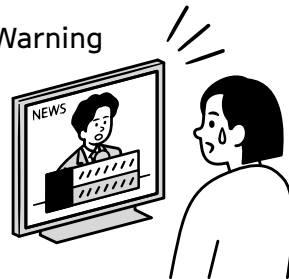
Earthquake Early Warning

An Earthquake Early Warning is information on the estimated seismic intensity and arrival time of strong tremors or long-period ground motion, which is provided as soon as possible after the occurrence of an earthquake. From February 1, 2023, Earthquake Early Warnings will also be issued based on long-period ground motion levels.

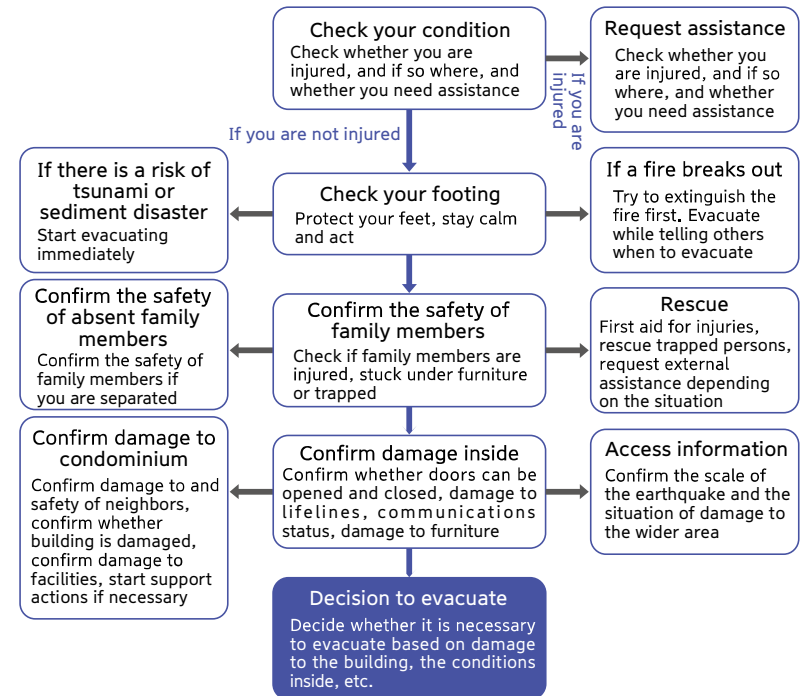


If you receive an Earthquake Early Warning

If you are watching TV and an Earthquake Early Warning alert is displayed, or if you receive an Earthquake Early Warning on your smartphone or mobile phone, which consists of a beeping sound and an announcement saying "jishin desu" (earthquake), you should first stop what you are doing, stay calm and protect yourself.



STEP 2 After the Shaking Stops

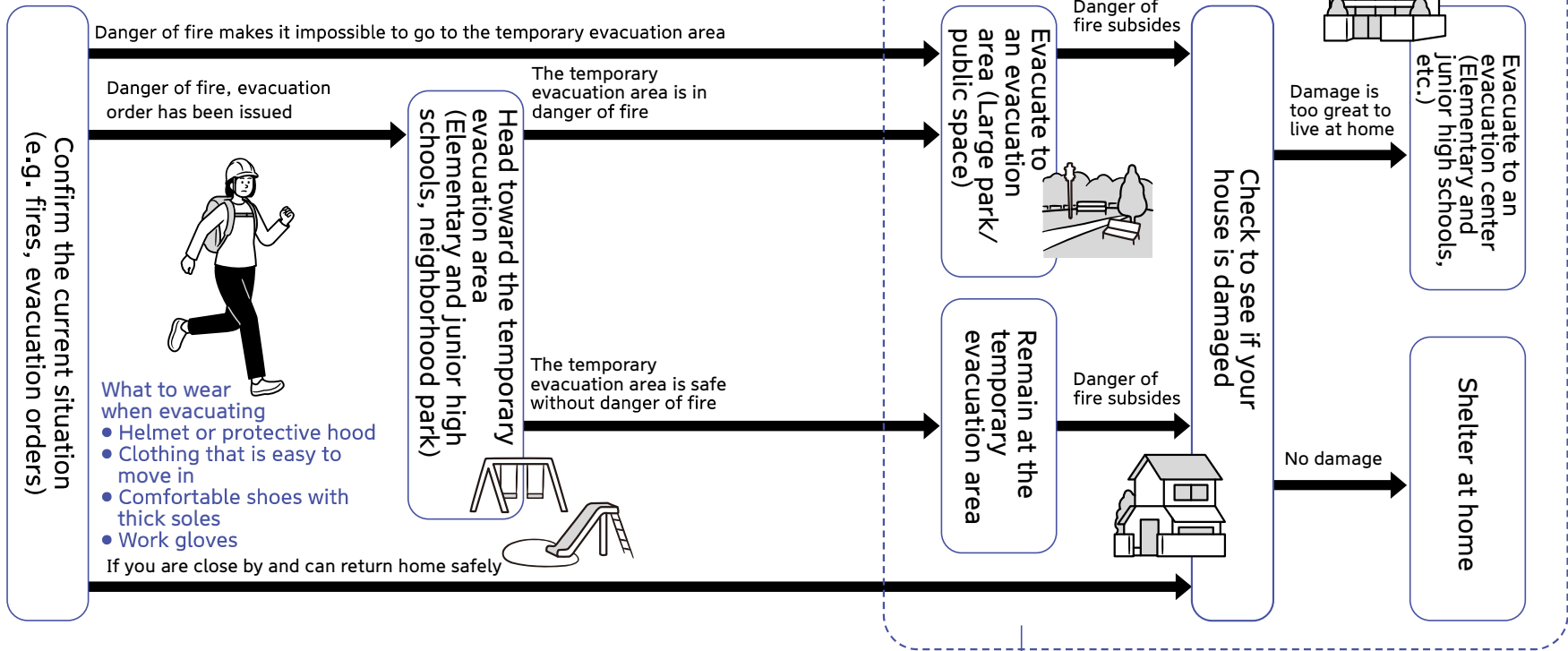


When the shaking stops, first check your own situation. If you are injured and it is difficult to treat yourself, seek help from your family or someone outside. Next, check the safety of your family and neighbors, and if someone is trapped or stuck under furniture, cooperate with others to rescue them. After that, obtain information such as the scale of the disaster and decide whether to evacuate.

Source: "How to live while prepared for earthquakes in a condominium" (Published in 2013 by Ei-Publishing, authored by Nobue Kunisaki, Tsunagu Network Communications)

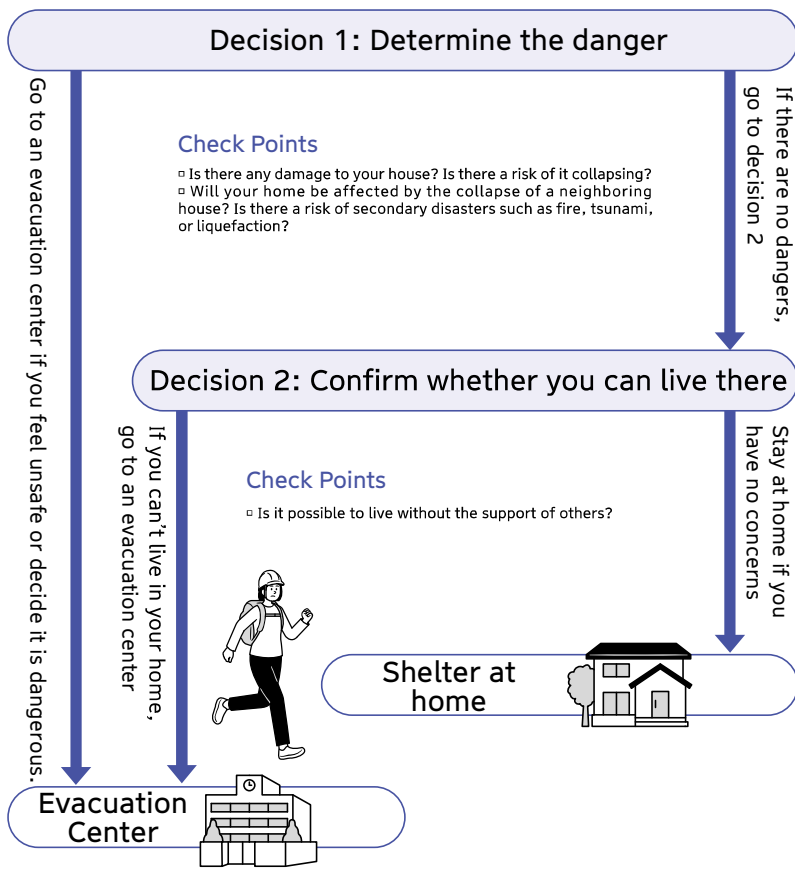
Flow Chart of Evacuation to an Evacuation Area or Center

The evacuation method in Tokyo is generally a two-stage evacuation method in which people gather at a temporary evacuation area and then evacuate to an evacuation area. However, depending on the local situation and the conditions of the disaster, your local government may instruct or guide you to evacuate directly to an evacuation area or evacuation center.



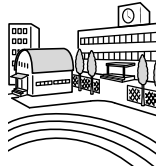
*The above evacuation method is an example of the two-stage evacuation method established by the Tokyo Metropolitan Government. Depending on the situation, there are also cases where you should evacuate to an evacuation area or evacuation center instead of a temporary evacuation area, so please prioritize safe evacuation. In addition, as the method of evacuation will differ by municipality, check the evacuation method in advance on your local municipal office's website.

Two Stages of Deciding to Evacuate




Evacuation timing

The decision to evacuate can sometimes mean the difference between life and death. Don't leave it up to others to decide whether to evacuate. Make your decision based on information from radio, television, and government announcements, and information you can confirm with your own eyes and ears.




What is a temporary evacuation area?

A place where evacuees gather temporarily from nearby to grasp the situation and form a group prior to moving to the evacuation area. It is an area large enough to secure people's safety, such as a school's grounds or nearby park.



What is an evacuation area?

A place to evacuate to in order to escape danger. They include large parks, plazas, university campuses, and school grounds.




What is an evacuation center?

A place to live for a certain period of time if your home is damaged and is difficult to live in. Schools, community centers, etc.

Quoted from JIS Z8210

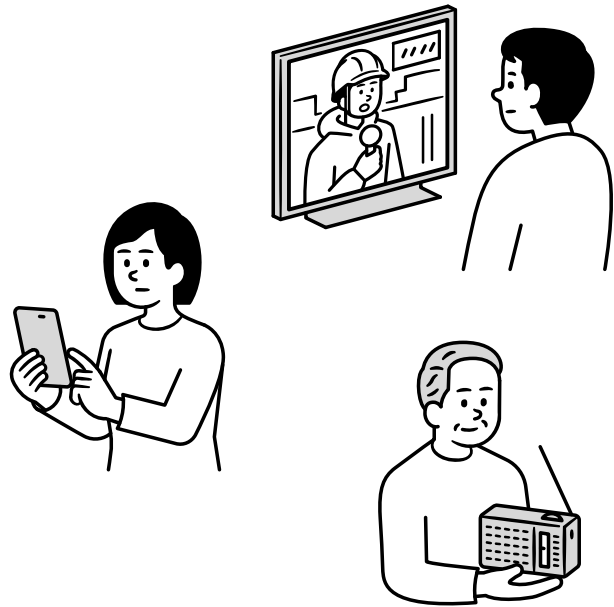
Quoted from JIS Z8210



“Temporary evacuation area” “evacuation area” “evacuation center”: [Tokyo Metropolitan Government Disaster Preparedness website]



When Deciding Whether to Evacuate



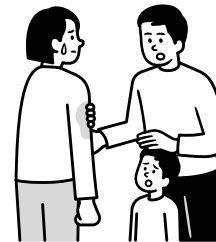
Obtain correct information

After the shaking has stopped, you could be endangered if you act according to the wrong information. Before making a move, you need to gather proper information. Use a battery-powered (or rechargeable) radio that will work even if there's a power failure, TV, smartphone radio/TV, websites of the fire department and public authorities, and other reliable sources to gather correct information.



Use social media

Social media such as X (formerly Twitter) and Facebook are valuable sources of information. However, during an emergency, false rumors and information could also spread through these sites. Don't simply believe such rumors. Make it a point to gather correct information.



Confirm the safety of your family

When a disaster breaks out, people are too preoccupied with protecting their own lives, and could fail to realize that their own hands or feet are bleeding, or that someone around them is hurt. When the shaking stops, family members who are together should check among themselves that they are not hurt and that the house is not in danger.



Confirm the situation inside and outside the home

After confirming the situation of the members of your family who are with you, check the inside of the house. Confirm that all possible sources of fire have been turned off and that there is an evacuation route. While listening to information over the radio and other media, visually inspect the situation around you.

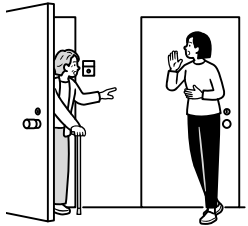


It is said that the deadline for saving lives is 72 hours. Please do not move unnecessarily in the first three days after a disaster, gather correct information, and stay in a safe place.



Indiscreet actions are dangerous

Rushing out of your house in a panic puts you at risk of getting hurt by a falling object. Stay calm and first confirm the safety of your family and home. After doing so, confirm the situation around you with your own eyes and ears, such as if there are any dangerous objects or buildings, or an outbreak of fire.



Confirm the safety of neighbors

After confirming your family's safety, direct your attention to your neighbors. Check to see if anyone has been enclosed, entrapped, or hurt, and whether there is anyone who needs help in evacuating. In times of emergency, it's important to help one another.

Emergency risk assessment that confirms the safety of buildings

An emergency risk assessment is conducted by the municipality in order to ensure the safety of residents, and involves an external inspection of a damaged building to determine the risk of collapse, external walls and window glass falling, etc. The aim is to prevent secondary disasters caused by aftershocks, and is conducted as soon as possible after an earthquake by experts dispatched by the municipality. The determination of the degree of danger, is displayed on stickers that indicate "dangerous", "caution required", or "inspected" and are posted at the entrances and exits of buildings and in easily visible locations outside the building, in order to inform users of the building and pedestrians.

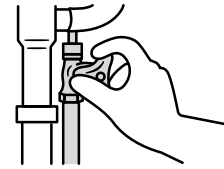


"Dangerous" (red):
The building is dangerous to enter
"Caution required" (yellow):
Be careful when entering the building
"Inspected" (green):
The building can be used

Source: Japan Council for Quick Inspection of Earthquake Damaged Buildings website
<https://www.kenchiku-bosai.or.jp/assoc/oq-index/>

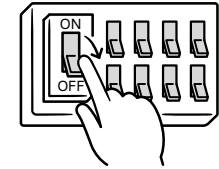


What to Do Before Evacuating



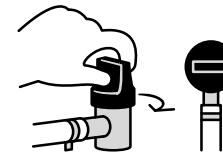
Turn off the water main valve

When evacuating, be sure to turn off faucets and water valves. Turning off the water valves can prevent water from leaking into your home.



Turn off the circuit breakers

If one of the household items that have fallen over is an electrical appliance that has its switch on, it could cause a fire when power is restored.



Close the main gas valve

If the gas pipe or gas appliances are broken, a gas leak could cause an explosion when gas is restored.



Leave a note inside saying you are safe

When evacuating your home, leave a memo in a place that your family will know, such as the inside of the door, with relevant information such as your safety and that of your family and where you have evacuated to, and lock your door when you leave.

* Prioritize evacuating quickly if a danger such as a tsunami or sediment disaster is imminent.



Use message boards and social media

Prepare multiple means for contact under the assumption that phones will not work. Social media will be useful, too.



Check Points for Sheltering at Home



□ Your privacy is protected

Check whether there are any concerns about living in an evacuation center together with a large number of people.



□ You can stay with your pet

Some evacuation centers may not allow you to bring your pet.



Check support information from your local government

Check the website and disaster preparedness emails from your local government for the latest information and be careful of aftershocks. If you cannot access the information from home, try accessing it from an evacuation center where recovery is expected to be relatively quick, or from a public facility or convenience store. Free Wi-Fi is provided during a disaster.



□ You can take your own measures against cold and heat

The temperature control at large evacuation centers may be inadequate.



□ Eliminates the worry of being away from your home

You will not have to worry about your home being burgled while you are away.



Receive supplies at an evacuation center

You should stockpile your own supplies in principle, but food and other supplies can be received at an evacuation center. Check your local government's website for information. It is also important to discuss any concerns with a local government officer and exchange opinions on how to respond.



□ Easy to respond to individual needs, such as if you have a young child

If you have individual needs that make you concerned about your surroundings, sheltering at home may be less of a burden.

Points for deciding whether to shelter at home

One way to live as an evacuee after a disaster is by "sheltering at home," which is to stay in your home and live there. Consider the characteristics of sheltering at home and evacuating to an evacuation center, and consider the evacuation plan that suits you and your loved ones. Use the above checklist to check whether the damage to your building is serious and whether lifelines can be secured.

Also consider this if your local evacuation center is full!



Contact a volunteer center if you have trouble

If you or your family find it difficult to handle tasks such as cleaning and tidying up your home, or removing household items that are no longer usable, proactively consult with the center instead of keeping it to yourself. In addition to cooperation with local people, various organizations such as local governments and volunteer centers can provide support.

Keep a light on at all times to prevent crime

In order to prevent crime when living in your home, keep a light on day and night so people outside can see that you are home.



Preparing for Being Unable to Return Home

Expect to be unable to return home for three days

According to the damage estimates for an earthquake directly hitting Tokyo, there will be up to 4.53 million stranded commuters and others. If the roads are filled with many stranded commuters and others after a disaster, emergency vehicles will be unable to pass and rescue efforts will be hindered. There is also a risk of being hit by aftershocks while walking, or encountering a crowd collapse. Stay in a safe place instead of rushing to get home immediately after a disaster occurs. The estimated length of stay is for about three days after a disaster, while rescue and life-saving activities are prioritized.



If a disaster hits while you are at work or school

If a disaster hits while you are at work or school, check that it is safe and stay where you are instead of returning home immediately. To ensure that you can stay there if a disaster hits while you are in your workplace, businesses in Tokyo are expected to keep three days' worth of supplies for their employees. Check what kind of supplies your workplace has on a regular basis.

If a disaster hits while you are out shopping or for leisure

Out of those who will be stranded when a disaster occurs, it is estimated that approximately 660,000 will be out for purposes such as shopping or leisure and will have nowhere to go. If a disaster hits while you are out, first move to a safe location such as a station, commercial facility, or evacuation area and wait for the confusion to subside. Temporary shelters will be opened to accept stranded commuters and others, so go to a nearby facility. Temporary shelters are stocked with food, blankets, and other supplies to last at least three days after an earthquake.

Preparation for staying away from home

In order to be able to stay at your workplace or a temporary shelter, it is important to be able to confirm the safety of your family. Prepare multiple means of communication, such as disaster emergency message services and social media, and tell the people you contact that you will return home when it is safe to do so, rather than that you will return immediately. Also, keep in close contact with relevant schools, daycare centers, kindergartens, and nursing care facilities and check their response in the event of a disaster.

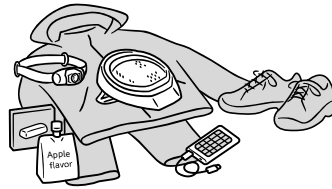
Items that companies should stockpile

- Drinking water, food
- Blankets, thermal sheets
- Vinyl sheets
- Sanitary goods
- Mobile radios
- Flashlights
- Dry-cell batteries
- Emergency medicines
- Portable/emergency toilets



Make your own preparations in case you cannot return home

In addition to having your employer stockpile emergency supplies, you should keep sneakers, warm clothing, portable phone charger, medicine, contact lenses, etc. in your workplace locker.



Mutual support at temporary shelters

Efforts for “mutual assistance” are important at temporary shelters. Once you have decided to stay at a temporary shelter, as a user of the facility who is unable to return home, you should also support the operation of the facility as much as possible. Assuming that the facility has also been affected by the disaster, you should actively participate in the operation of the facility by distributing supplies, cleaning common areas, and doing whatever else you can do. In addition, regardless of their age, gender, nationality and disabilities, various types of people will gather at the temporary shelters that accept stranded commuters and others with nowhere to go. When using a shelter, please be considerate and make concessions to those who require special consideration.

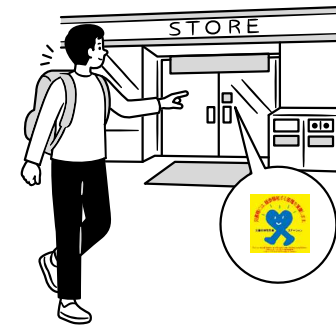


You can check the location of temporary shelters and support stations for those returning home on the disaster preparedness map of the Disaster Preparedness Tokyo app.



Plan the timing of your return home and use support stations for people returning home

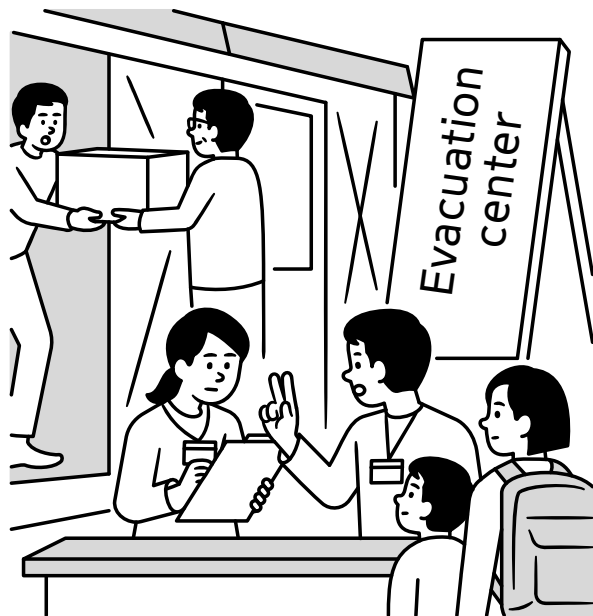
Wait about three days after the disaster, until the confusion has died down, before returning home. However, if stranded commuters and others all flood the stations and roads at once when it becomes possible to return home, it could lead to dangerous congestion. When returning home, check your surroundings closely and choose a time when there are not many people. Workplaces, schools, and temporary shelters may establish rules such as prioritizing who can return home, and may notify stranded commuters and others of such rules in advance. Also, in principle, support stations for people returning home (convenience stores, gas stations, etc.) will become available from four days after the disaster to provide those walking home with tap water and lavatories. If you are walking home, make use of the support stations for people returning home.



Gathering information as a stranded person

In the event of a disaster, information such as the opening status of temporary shelters will be posted on the Tokyo Metropolitan Government Disaster Prevention Map and the Disaster Preparedness Tokyo app. Information will also be disseminated from time to time on the websites and X (formerly Twitter) accounts of the metropolitan and municipal governments. Always carry a spare battery and charging cable so that you can use your smartphone to gather information.

▲ Evacuation Center



What is an evacuation center

An evacuation center is a place for people who cannot continue to live in their homes to live in evacuation for a certain period of time. The Tokyo Metropolitan Government has about 3,200 evacuation centers comprising schools, community centers and other facilities, and about 1,600 welfare evacuation centers that accept people who would have difficulty living in a regular emergency shelter and need special care.



Search for evacuation centers here
(Tokyo Metropolitan Government
Disaster Prevention Map)

Process of opening an evacuation center (example)

The following is an example of the process taken to open an evacuation center. Normally, the facility manager will unlock the facility and start preparations for its opening. However, at the onset of a disaster, the manager could be late in arriving due to being caught up in the disaster. Therefore, it is possible that the evacuees themselves have to prepare for the opening of the shelter.



① Preparation to receive evacuees

The lock is opened, and preparations to receive evacuees begin. Confirmation of safety within and around the facility is made, such as confirming firefighting facilities and whether a means of communication can be secured.



② Preparing the layout

Adjustments are made to the layout of the various spaces that have been considered in advance, taking into account the situation of the evacuees and the facility. An environment where people can live is prepared.



③ Establishing a reception desk

Evacuees are guided from evacuation areas to the evacuation center, and registration begins. A name list is prepared to grasp the situation of the local victims of the disaster, including the evacuees and those needing care.

▲ Guide to Evacuation Life



Rules and manners at the evacuation center

Evacuees should uphold the rules of life at an evacuation center and help each other by sharing duties to the extent possible. Entering or scrutinizing the living space of a fellow evacuee, speaking in a loud voice, and smoking in non-designated areas go against manners. Consideration toward those who need support is also necessary at an evacuation center.

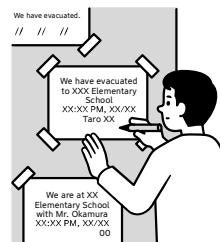
After arriving at the evacuation center (example)

The following is an example of what evacuees do after arriving at an evacuation center. Please note that the process and rules differ from shelter to shelter. It is important to uphold the rules in evacuation center operation and life. Evacuees helping each other and cooperating is indispensable.



① Giving your contact information

After arriving at the evacuation center, give your address, name, and contact information, and you will be grouped with neighbors or by neighborhood association.



② Confirming the safety of family members, etc.

Confirm the safety of family members and neighbors. So that those with hearing impairments can also understand the information, write out the information on cardboard, etc.



③ Role sharing

Carry out the duties allotted to you such as helping out at the registration desk or cooking. There are many things that need to be done by cooperating with each other.

▲ Dos and Don'ts at an Evacuation Center



Securing water

When tap water is unavailable, follow the instructions of the facility's manager and secure drinking water and water for domestic use.



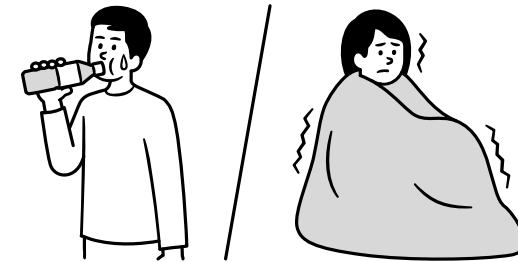
Use of the toilet

As a large number of people use the facility's toilets, the sanitary environment may deteriorate and lead to the spread of infectious diseases if they are not properly maintained. Therefore, use the toilets in the manner instructed by the facility's manager.



Maintain sanitation

No shoes should be worn inside the facility. Divide the space into passageways and places where the futon mats are laid out. Decide on a place to put rubbish, and be sure to tightly close the garbage bags to prevent the outbreak of flies and cockroaches.



Take care of your health in the changing environment

The drastic change of environment could negatively affect your health. Be sure to take measures to care for your health. Prevent economy class syndrome by moving your body regularly. Drink enough water during the summer, and keep warm during the winter.



Distribution of supplies

Don't be impatient and calmly wait for your turn to come. Depending on the situation, a single person's share of food and supplies may have to be shared with other people. Consideration toward those who cannot line up is also important.



Prevention of infectious diseases

Common colds, influenza, and other contagious diseases can easily break out. It is recommended that you wash your hands and gargle frequently. When no water is coming out of the taps, having ethanol ready as a disinfectant will provide peace of mind.



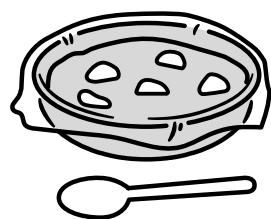
Sanitation in cooking meals

Wash your hands carefully with soap before cooking or arranging food, touching ingredients, and after using the toilet. Cooking utensils should also be washed and disinfected after each use.



Prevention of heat stroke

Beware of heat stroke at an evacuation center in the summer. Children, the elderly, and those with chronic illnesses are especially at risk of heatstroke, so people around them should pay attention. Frequently replenish the water and salt lost by your body even if you don't feel thirsty, wear permeable clothing that is absorbent and quick-drying, and avoid the heat.



Prevention of food poisoning

Food poisoning can occur at any time of the year. The best method to prevent this is to wash your hands. You should also be careful about the dishes you use. When you are unable to use water, one good method is to serve food on disposable containers that have plastic wrap spread on them.



Sleep and turning off the lights

There are many things about living in an evacuation center that you are not used to, and because of this, people often do not sleep well and consequently become ill. There are those who cannot sleep when the lights are on, and those who cannot sleep when it's dark. One option would be to turn the lights off every other day.



Respect privacy

Each residential space is the same as a house. Be sure to uphold each other's privacy by being especially considerate toward households with women and small children, and those who need support.



Crime prevention

An evacuation center does not provide a perfect residential environment. Keep in mind that you have to protect yourself, and if you see someone acting suspiciously, contact the police or facility staff.

Consideration toward people who need support

People who need support include expectant mothers, children, the elderly, foreign nationals, and those with disabilities. Try to be considerate and supportive of such people, including those who are wearing symbol marks such as Tokyo's "Help Mark," which indicate that they have a disability that is not easily discernible.



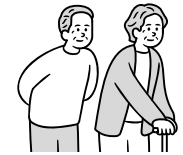
Expectant and nursing mothers

Mothers with infants are concerned about breastfeeding their child. Women who are pregnant or have just given birth also need extra consideration.



Infants and children

Children rid themselves of stress by playing. Secure a place and time where they can express their feelings and become refreshed.



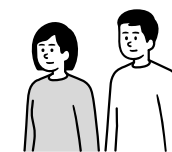
Elderly and disabled people

At times, the elderly and people with disabilities may be inconvenienced but will not come out and say it. Try to speak to them frequently in a cheery manner and use various forms of communication to keep them from feeling alone or afraid.



Foreign nationals

Because of differences in customs and culture, and difficulty in understanding the language, non-Japanese people may be feeling afraid. It's important to provide them with proper information through an interpreter or someone capable of speaking their language.



Sexual minorities

People in sexual minorities may face challenges such as not being able to use men's or women's toilets. Be aware of such diversity and be considerate of privacy.

▲ Preventing Disaster-related Deaths

“Disaster-related death” refers to death due to deterioration in a person’s physical condition due to living in evacuation after a disaster. In past disasters, many people have died not only at evacuation centers, but also while sheltering at home. Remember that the risk can be reduced by consciously moving your body and taking steps to improve your lifestyle.



Economy class syndrome

Staying still in a cramped position can cause blood clots to form in your legs, which can be fatal in the worst case scenario. Prevent it by moving your body regularly.

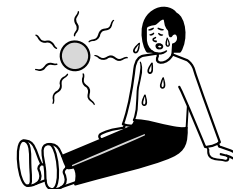
➔ Page 221



Anaphylaxis

Anaphylaxis is an allergic reaction that can occur shortly after a drug or food enters the body, and it is possible that a severe allergic reaction could occur. Carefully check that food and snacks do not contain any allergens.

➔ Page 221



Dehydration

People may end up chronically dehydrated due to refraining from drinking due to water shortages or dislike of unclean toilets. Be conscious about drinking water.

➔ Page 217

Prevent disaster-related deaths with “TKB”

“TKB” in an evacuation center is an abbreviation for “Toilet-Kitchen-Bed.” “Toilet” refers to clean toilets, “Kitchen” refers to providing nutritious meals, and “Bed” refers to preparing the sleeping environment. Improving the living environment can help prevent disaster-related deaths.



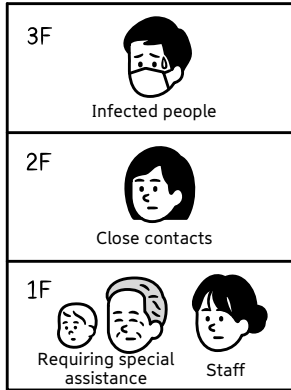
Evacuating with and caring for a pet

As a general rule, people and pets are not allowed to live in the same space at an evacuation center. Owners are responsible for caring for their pets in accordance with the rules of the evacuation center. Take care of your pet’s health and behavior on a daily basis, and prepare emergency supplies for your pet as well.

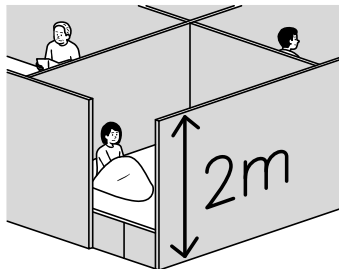


Evacuation Center Management During a Pandemic

Many evacuees living in a large group during a pandemic increases the risk of infection spreading. If living in an evacuation center, you can reduce the risk of infection by taking measures such as avoiding the “Three Cs,” wearing a mask, and getting into the habit of disinfecting with alcohol frequently.



Reduce the risk of infection by zoning of floors and rooms



Prepare 2-meter partitions to prevent droplets from spreading

Items to prepare at an evacuation center

Sanitation

▫ Thermometer (preferably non-contact type)	▫ Alcohol disinfectant	▫ Disinfecting wipes	
▫ Sodium hypochlorite	▫ Kitchen detergent	▫ Drinking water in 500 mL plastic bottles (for hand washing during water outages)	
▫ Paper towels	▫ Wet wipes	▫ Disposable gloves	▫ Garbage bags (45 L)
▫ Plastic bags for dividing up items	▫ Sealable bags with zippers	▫ Soap (hand soap)	▫ Masks (non-woven fabric)
▫ Face shields	▫ Personal protective equipment (gowns)	▫ Trash cans with a lid (foot-pedal type)	▫ Plastic baskets or container boxes (for serving food)
▫ Adhesive cleaning tape	▫ Paper mop sheets	▫ Buckets (for cleaning and disposal of leftover food)	▫ Plastic colander (for leftover food disposal)
▫ Disinfectant spray containers	▫ Vinyl sheets	▫ Poles for vinyl sheets at reception	▫ Plastic wrap (for dividing food into portions and spreading over plates to keep them from getting dirty)
▫ Towels	▫ Polytanks with nozzle (for hand washing)	▫ Newspaper (for disposing of vomit)	

Living space

▫ Partitions (preferably 2 m high)	▫ Fan or circulator (for ventilation)	▫ Cardboard bed	▫ Mattress
▫ Linen such as sheets	▫ Bedding/comforter	▫ Pillow	▫ Blanket (towel blanket in summer)
▫ Humidifier	▫ Temperature and humidity gauge	▫ Colored tape (for partitioning)	▫ Blue sheets (for partitioning)
▫ Strong rope	▫ Portable toilet (preferably automatic wrap type)	▫ Floor-standing handrail	

Communication equipment

▫ PC	▫ Tablet	▫ Mobile phone/smartphone	▫ Wi-Fi
▫ Extension cord	▫ Charger	▫ Copier machine	

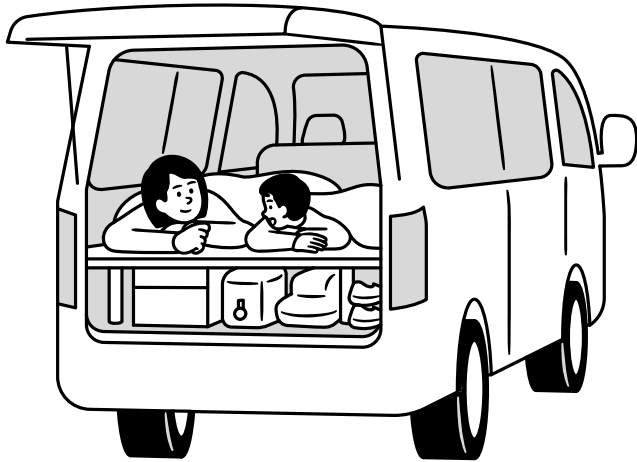
Other

▫ Writing utensils	▫ Markers	▫ Copy paper (A4/A3)	▫ Craft paper
▫ Sticky note paper	▫ Clear files	▫ Binders	▫ Whiteboard/pens
▫ Curing tape	▫ Cloth/duct tape		
▫ Cellophane tape	▫ Laminator sheets (for signboards)		
▫ Stapler and staples	▫ Clips		
▫ Tape measure (at least 5m)	▫ Reading glasses		
▫ Scissors	▫ Cutter knife		

*Created with reference to the “Support Book for Evacuation Life During Covid” produced by the JVOAD Expert Committee on Improving Evacuation Life



Dos and Don'ts when Sleeping in a Car or Tent



Some people choose to sleep in a car or tent following a disaster due to reasons such as evacuation centers being full, heating and cooling issues, and concerns about bringing children or pets with them. If you choose this as a temporary evacuation method, it is important to be fully aware that it carries risks such as economy class syndrome and carbon monoxide poisoning, which can be life-threatening.

Sleeping in a car in the Tokyo metropolis is not recommended

The Tokyo Metropolitan Government does not recommend evacuating by car or sleeping in a car, especially in the city center, from the perspective of securing emergency traffic routes. If it is unavoidable, try to make it only a temporary measure.

Source: Toyota Motor Corporation Social Contribution Promotion Department "Help Book for Sleeping in a Car During Evacuation"

Sleeping in a car leads to disaster-related death

In addition to increasing the risk of economy class syndrome, sleeping in a car can lead to increased stress and the early symptoms of poor health due to reduced contact with other people, which can lead to disaster-related deaths. If it is unavoidable, please note the following points.



Do not leave the engine running

There is a risk of death due to carbon monoxide poisoning. Take measures to protect yourself from the cold, such as covering the car with insulating material.



Lay the seat flat

Make your sleeping area level by placing a towel on the seat. This will reduce the risk of economy class syndrome.



Do not park on a slope

If you cannot avoid parking on a slope, put chocks under the tires and remember to apply the handbrake.



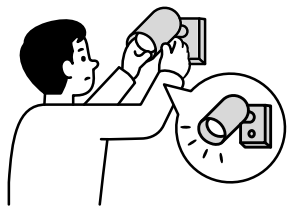
Stop in a populated area

Park your car in a populated area to reduce the chance of your car being broken into or tampered with.

Source: Saga Shimbun, April 13, 2017 (distributed by Kyodo News) "24% of Deaths Related to Kumamoto Earthquake Due to Sleeping in Cars" <https://www.saga-s.co.jp/articles/~98026>

! Crime Prevention During a Disaster

① Burglary, theft



Give the impression that you are home

Make sure to give the impression that you are home to avoid being targeted by burglars. Install a battery-powered security light with a motion sensor near the entrance.



Be more careful about locking doors

When leaving your home, take all possible precautions such as covering broken windows so they cannot be seen from the outside, locking the front door with a door chain and padlock if the door frame is distorted and won't close, and leaving a light on in each room.



Carry valuables with you at all times

Make sure to carry your valuables with you or ask someone you trust, such as a family member, to stay at the home. Also, it is important to keep them close to you while sleeping.

② Sexual assault, abduction



Move in groups and avoid blind spots

Even during the day, there is a risk of being a victim of crime if you are in a deserted place or a place where others cannot see you. Carry a security buzzer with you when you go out. Move in a group and be careful not to approach a blind spot alone.



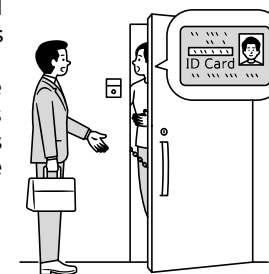
Don't create an environment where children are alone

There have also been cases of male and female children being molested, and of being yelled at and hit by strangers who are releasing built up stress. It is important not to create an environment where children are unsupervised and to ensure that an adult is always present.

③ Fraud, malicious renovations

Be careful of sudden visitors

In the past, there have also been reports of fraud and unscrupulous business practices that took advantage of earthquake disasters. Some victims were charged large sums of money under the guise of gas and electricity inspections and home repairs.



Returning to Daily Life

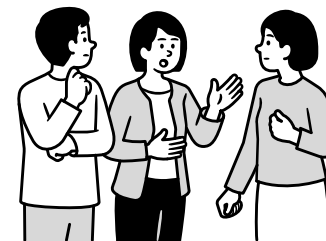


Accepting death

With 19,765 fatalities in the Great East Japan Earthquake (as of March 1, 2023, Fire and Disaster Management Agency), and 6,434 fatalities in the Great Hanshin-Awaji Earthquake (final as of May 19, 2006, FDMA), many people had to accept the death of an acquaintance or loved one. In the event of an earthquake directly hitting Tokyo, it is estimated that about 6,100 people will be killed and 93,000 injured.

Discuss your disaster experience

Talking about experiences of the disaster in everyday conversation is not taboo. Talking about experiences with family, friends, and local people can help reduce stress for both parties. Some people develop PTSD (post-traumatic stress disorder) after a disaster due to the intense experience. It is important to take good care of such stress.



➔ Go to Page 234

Measures against stress

In situations where we are prone to both physical and mental stress, we need to maintain our health through self-care. Keep the following points in mind and acquire a mindset for overcoming life after a disaster.

- If you feel worn out, it is time to start taking care of yourself. Start self-care immediately
- Try not to think too much about the future
- Deep breathing is an easy way to relax; take a deep breath and calm your mind and body
- Do not regret past decisions and remember that the decision you made was the best one at that time
- If there are difficulties in relationships with your partner or family, try to keep a comfortable distance from them
- If you are worried about your child's condition, stay with them and communicate with them

Role of disaster volunteers

Disaster volunteer activities refer to all types of volunteer activities that assist in the recovery and reconstruction of disaster-stricken areas after various disasters such as earthquakes and wind and flood disasters. The role of disaster volunteers is to provide a wide range of support to disaster victims, not only by cleaning up and cooking meals, but also supporting the operation of evacuation centers and responding to the needs of disaster victims.

Example of activities

- Removal and sorting of debris
- Mud removal
- Indoor cleaning
- Cooking
- Supporting evacuation center operations
- Supporting delivery and distribution of relief supplies
- Helping with moving
- Helping with mental care
- Supporting event activities, etc.

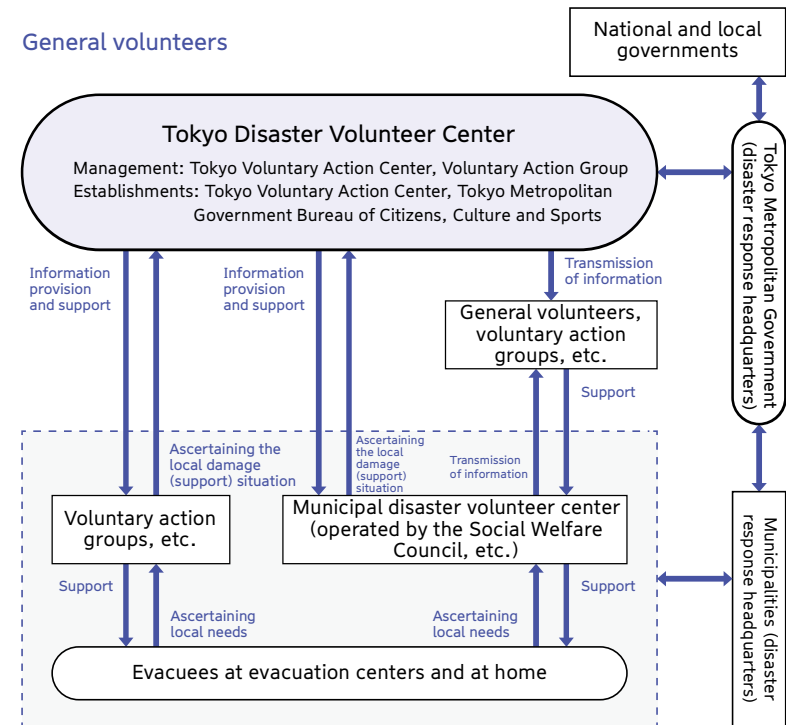


Source: Public Relations Office, Government of Japan "How to start disaster volunteer activities for those who want to support disaster-affected areas"
 Edited and created based on <https://www.gov-online.go.jp/useful/article/201909/4.html>

How to request volunteer support

Generally, in a disaster-affected area, the local social welfare council and government take the lead in setting up a disaster volunteer center, which accepts volunteers and matches them to the needs of disaster victims. If you need the help of a volunteer, first check to see if there is a disaster volunteer center set up in your municipality.

General volunteers



Source: Cabinet Office "Special Edition: Disaster Preparedness Volunteers"
 Edited and created based on
https://www.bousai.go.jp/kohou/kouhoubosai/h22/01/special_01.html



Clean up to rebuild your life

When rebuilding your life after an earthquake, start by cleaning up so that you have space to live in. Wear clothes that will prevent injury, such as work gloves and sneakers, and be careful of fallen furniture, scattered objects, broken glass, etc. when cleaning up.



Moving into emergency temporary housing

If you have lost your home, you can move into emergency temporary housing (for two years in principle; could possibly be extended). Move from the evacuation center to emergency temporary housing, and start on the road to living independently as soon as possible.

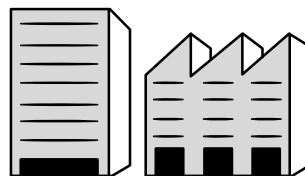
➡ Page 259



Moving to the home of a relative or acquaintance

Another option would be for you to move into the home of a relative or acquaintance. It is important to lighten the burden on them by stating that you will only be there until you find a new home.

Starting to Rebuild Your Life



Reopening business

The central government and the Tokyo Metropolitan Government have various programs to support SMEs and agriculture, forestry, and fishery operators in reopening their business. Apply to your municipality to receive such support.

➡ Page 262



Resuming work

If you have lost your job due to a disaster, you can look for work at Hello Work (the national government's employment service center) or receive support such as vocational training.

➡ Page 261



Resuming school

If you are in financial trouble due to a disaster or your school has been damaged, you can receive emergency scholarships to help cover matters such as school tuition or transfer expenses.

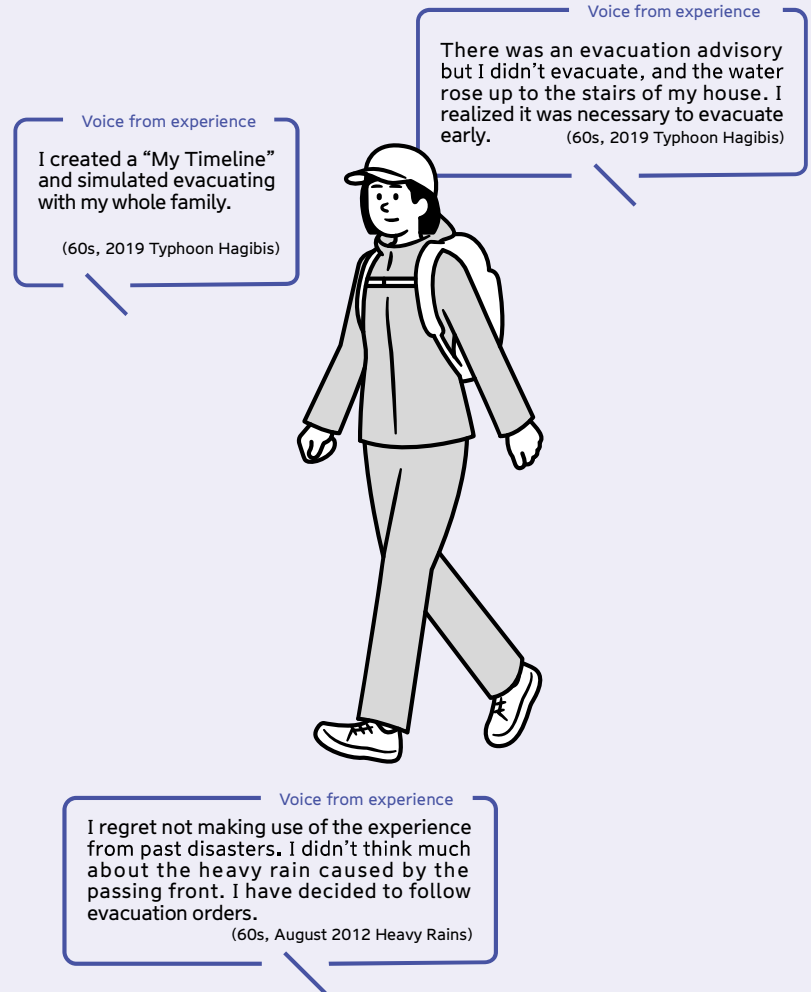
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2

Preparation and Actions for Typhoons and Heavy Rain

In recent years, the damage from not only earthquakes but also large typhoons and heavy rains has become more severe. Expressions such as “once in several decades” or “once in several centuries” have become commonplace, and there are many situations where conventional wisdom no longer applies. But that doesn’t mean that you cannot do anything.

You can minimize the damage by making your preparations more thorough. Understand the characteristics of wind and flood damage, which differ from earthquakes, and take countermeasures.



Source: Edited and created based on Cabinet Office, “One Day Before Project”, <https://www.bousai.go.jp/kyoiku/keigen/ichinitimae/index.html>



Weather-related Disaster Risks Due to Climate Change

Climate change is becoming more serious as the world's average temperature rises due to greenhouse gas emissions and other factors.

Various changes brought about by abnormal weather

Predicted impact of climate change

Rising temperatures



- Annual average temperature rises by **approximately 1.4°C / 4.5°C** (increase in the number of extremely hot days and sweltering nights)

More powerful typhoons



- Stronger rain and winds from typhoons
- Strong typhoons will be more frequent

Rising sea levels



- Coastal sea level rises by **approximately 0.39 m / 0.71 m**

Heavier rain



- Annual maximum daily precipitation increases by **approximately 12% (approx. 15 mm) / 27% (approx. 33 mm)**
- The frequency of over 50 mm/h of rain falling increases by **approximately 1.6x / 2.3x**.

The blue text indicates the predicted outcomes if the targets set in the 2015 Paris Agreement are achieved, and the red text indicates the predicted outcomes if no additional measures are taken beyond the current situation.

*Created based on Ministry of Education, Culture, Sports, Science and Technology and Japan Meteorological Agency, "Climate Change in Japan 2020"

Climate change is threatening everyday life

As temperatures rise, sea levels will also rise, making storm surge flooding more likely to occur, especially in areas at sea level.



Weather Conditions that Require Special Caution

Due to the recent abnormal weather, what requires attention is the fact that the way that rain falls has changed. In particular, damage from torrential rains occurs all over Japan almost every year and is no longer a rare occurrence.



Torrential rain

Rain that falls heavily over a period of several hours in one location, resulting in rainfall ranging from one to several hundred mm. Such rain causes disasters such as serious sediment disasters and the flooding of houses.

Typhoons

The strength of a typhoon is determined by the maximum wind speed near its center. The strongest level is an "extreme" typhoon, which can cause wooden houses to collapse.

Rainbands

A phenomenon that causes heavy rain when cumulonimbus clouds form in a line and pass over or stagnate in generally the same place. Although it is currently difficult to make accurate forecasts due to the complex factors involved, the Japan Meteorological Agency issues warnings of the possibility of heavy rain due to a rainband about half a day in advance. Be aware of the danger of heavy rain disasters and confirm your evacuation actions early.



Knowing Your Community's Risk of Wind and Flood Damage From Hazard Maps

It is understood that wind and flood damage is not only caused by rainfall, but also by the topography and characteristics of land, such as alluvial plains that are below the level of rivers and are likely to suffer flooding, and areas that are at risk of sediment disasters. Be sure to check your municipality's hazard maps in advance and learn about the dangers.

Check the hazard map

A hazard map is a map created for each municipality that displays areas where damage is expected and where to evacuate. Because the damage caused by floods, inland flooding, sediment disasters, and storm surges differ, be sure to check each type of disaster. It also shows the depth of flooding for each area, for example, if an area floods to a depth of 3 m, the first floor of buildings will be submerged, and if an area floods to a depth of 5 m, the second floor will be submerged.



Flood Hazard Map (Bureau of Construction, Tokyo Metropolitan Government)

Check the disasters that may occur around you

Check the hazard maps to ascertain whether you are in an area at risk of flooding or sediment disasters, and if so, to what extent. Check the route from your home to the evacuation area, as well as from your nearest station and other places you often visit. The Disaster Preparedness Tokyo app also includes a "Flood risk map" which you can also use.



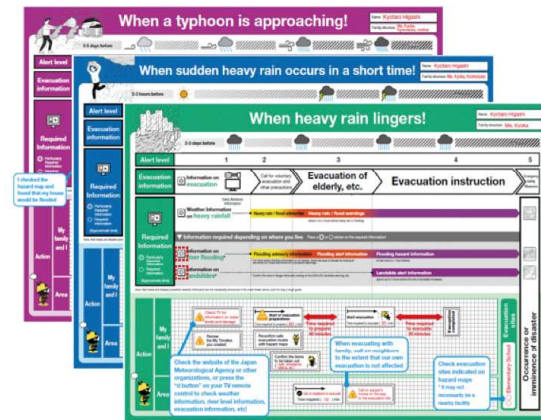
Creating a Tokyo My Timeline

Decide what actions to take in a disaster

A My Timeline is a chronological list of actions that you will take in the event of a disaster, which you decide in advance. "Tokyo My Timeline" allows you to organize appropriate evacuation actions in advance, while acquiring the knowledge necessary to evacuate from storm and flood damage.

Check local risks at the same time

Tokyo My Timeline covers river flooding, storm surges, and sediment disasters, and allows you to create evacuation plans tailored to the characteristics of your area. It is important to consider appropriate evacuation actions while checking the hazard maps and flood risk map on the Disaster Preparedness Tokyo app.



The Tokyo My Timeline is also included in the Disaster Preparedness Tokyo app. Use it to gather necessary information in the event of a disaster to evacuate more safely!

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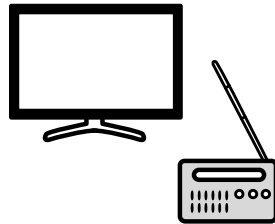


Knowing the Latest Weather and Traffic Information

During the period from early summer to autumn, natural disasters are more likely to occur due to heavy rain and storm surges caused by typhoons and fronts. Also, unlike earthquakes, information about typhoons can be obtained ahead of time, so gathering information is essential.

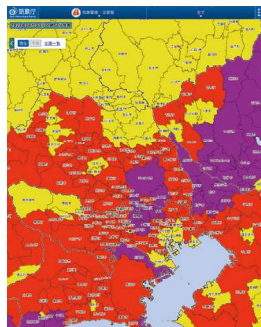
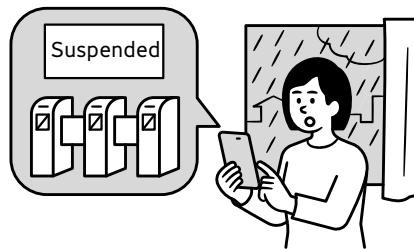
Understand the types of warnings and information

In addition to warnings, organizations including the Japan Meteorological Agency release various types of disaster prevention weather information in stages over time. Understand the meaning of each and check the actions you should take.



Check information about public transport suspensions early

Recently, the suspension of railway operations is often planned when a typhoon is expected to approach nearby. To avoid trouble, check the railway company's website and social media in advance.



Japan Meteorological Agency KIKIKURU



Protecting Yourself from Wind and Flood Damage

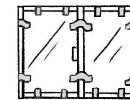
Prepare inside and outside your home

If you know that heavy rain or a typhoon is approaching, be sure to prepare both inside and outside your home. By knowing what to do in advance, you won't have to rush when the time comes, and you can minimize the damage.

Preparation outside your home

Fix shutters and screen doors

Secure them firmly with curing tape to prevent them from being blown away by the wind.



Clean gutters and drains

Water will overflow if they become blocked with litter. Placing sandbags in areas that are likely to flood is also effective.

Move outdoor objects indoors

Move planters, ornaments, clothes-drying poles, etc. indoors or secure them firmly to prevent them from being blown away by the wind.



Fill up your car with gas

You will be able to keep warm in your car and charge your smartphone if the power goes out.



Preparation inside your home

Fill the bathtub with water

Filling the bathtub with water is extremely useful, as you can use the water to wash your hands or flush the toilet if the water is cut off.



Apply shatterproof film to window glass

This will prevent injuries if the window glass breaks due to a flying object. Close the curtains and lower the blinds too.



Charge your smartphone and computer

Keep your smartphone and laptop fully charged in case the power goes out. You can also use your laptop to charge your smartphone.



Criteria for Deciding to Evacuate

If you may need to evacuate, check the information frequently and make a decision early. If you live in a safe area, or if the wind and rain are already so intense that it's dangerous to go outside, also consider staying at home.

Key points for deciding to evacuate

One of the criteria for deciding whether to evacuate is the disaster prevention information that uses "alert levels." Under this system, the government has defined disaster prevention information such as evacuation information and weather information into five levels of alertness, so that local residents can intuitively understand the degree of risk of a disaster and take appropriate evacuation actions.

Alert level	Actions to take	Evacuation information
Alert level 5	Take the most appropriate action to protect your life	Emergency safety measures
Alert level 4	All persons should evacuate	Evacuation order
Alert level 3	Elderly people, people with disabilities, young children, etc. and their support persons should evacuate.	Evacuation of the elderly, etc.
Alert level 2	Confirm your own evacuation actions	Heavy rain, flood or storm surge advisory
Alert level 1	Be prepared for disaster	Early warning information (possibility of warnings being issued)

Everyone should evacuate by alert level 4

This calls for immediately taking action to protect your life in a safe place. However, at alert level 5, there is life-threatening danger and a disaster has already occurred or is imminent, and this alert level is not always issued, so it is necessary to evacuate by alert level 4, without waiting for it to reach alert level 5.

Try to Evacuate Early

Pay attention to disaster prevention weather information

It is important to collect accurate information in order to protect yourself from typhoons and torrential rain. Also, as there are different types of information, it is important to correctly understand the caution levels.



Disaster prevention weather information

Advisory

Announced when there is a risk of a disaster occurring due to heavy rain, flooding, strong wind, etc.



Sediment-disaster alert bulletin

Announced when a heavy rain warning (sediment disaster) has already been announced and conditions are such that a life-threatening sediment disaster could occur at any time.



Warning

Announced when there is a risk of a serious disaster occurring due to heavy rain, flooding, extreme wind, etc.



Emergency warning

Announced when there is a very high risk of a serious disaster occurring due to heavy rain, heavy snow, extreme wind, blizzard, waves, or storm surges of a particularly abnormal level.



Source: Japan Meteorological Agency "Weather warnings and advisories" from the Japan Meteorological Agency website

Preparing to Evacuate During Wind and Flood Damage

Please check weather information and disaster preparedness apps frequently to get the latest information. Also, be sure to know the location of the evacuation center and your evacuation route so that you don't get lost in the rain when the time comes.

Prepare an emergency backpack in advance

You should have a backpack filled with disaster preparedness goods at all times. In case of heavy rain, pack a change of clothes, a towel, and a rain cover.



Avoid dangerous places

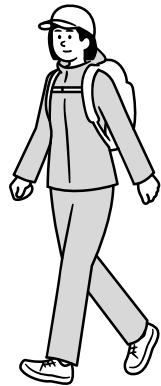
There are websites where you can see the water level of rivers in Japan via live cameras. Never go to see a river out of curiosity.



Live camera footage
(Tokyo Metropolitan
Flood Channel)

Emphasize on ease of movement

If the rain is so heavy that you need to evacuate, it will be easier to walk in comfortable sports shoes than in rain boots. Protect yourself with a hat, gloves, and raincoat.



Turn off the circuit breaker when evacuating

Turn off your home's circuit breaker (and solar power generator) when evacuating in order to prevent an accident. Also, there is a risk of electric shock if you use electronic equipment that has been submerged in water. Contact an electronics store or retailer after flood damage.

Precautions When Evacuating During Wind and Flood Damage

Once you are prepared, carefully assess the depth of the water and the road surface conditions at the time of flooding, and always consider the possible dangers before evacuating. However, that does not necessarily mean that you should always move to an evacuation center; instead, you should prioritize actions that will protect your life.

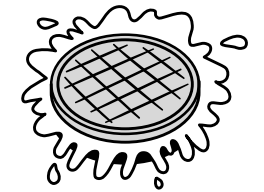
If you live in a low-lying area, "wide-area evacuation" is recommended.

If large-scale flooding occurs in the eastern lowlands, where the elevation is at or below the high tide level, many areas will become flooded. If you live in one of these areas, pay close attention to the weather information and voluntarily undertake "wide-area evacuation" to outside of the area as soon as possible.



Be careful when moving during flooding

Be aware that the covers of gutters and manholes may shift when water is flowing, which can be dangerous. The depth of water that can be walked in is about the height of an adult's knees (about 50 cm), and you must not take unnecessary risk.



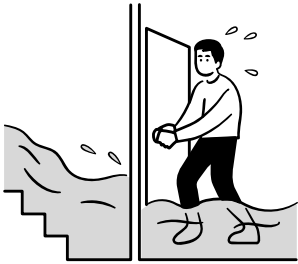
Secure safety indoors (evacuating upstairs)

If a river has overflowed with water, it is possible to secure your safety by moving to and staying on a higher floor if: there is no risk of your house being washed away, the height of your living room is higher than the depth of the flooding, and you have sufficient stockpiles in place to survive even if the floodwaters remain.



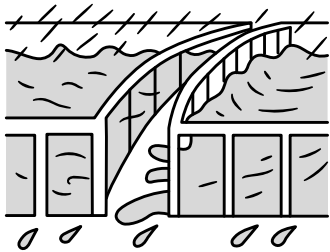
Areas to Avoid During Wind and Flood Damage

Be careful to avoid going close to rivers, irrigation canals, and areas with poor drainage. Avoid underground facilities too, as water can easily flow into them.



Avoid underground and semi-underground areas

Basements are prone to flooding, and often it is impossible to see outside, so there is a risk of being unable to escape. Water can flow in an instant, so be careful.



Rivers and irrigation canals

Stay away from rivers and irrigation canals due to their risk of flooding. People who live along a river should carefully check the local disaster prevention information and prepare to evacuate immediately.



Be aware of “underpass flooding”

You may be unable to move if your car gets submerged in an underpass. The engine of a passenger car may stop if the water reaches a depth of 30 cm or more.

How to Escape a Submerged Car

Break a window with an escape hammer

If you inadvertently drive into a flooded road or your car falls into a pond or river and becomes submerged, the external water pressure may prevent the door from opening. Do not panic in such a case, and use the cutter part of the escape hammer to cut the seatbelts, then use the hammer to break a side window and try to escape.



If you don't have an escape hammer

The seat headrest can be used if you can't find an escape hammer or other tool in the car. You can break the glass by removing the headrest, inserting the metal rods between the glass and the frame, and force it open using the principle of leverage.



Don't panic if you get submerged

It takes a fair amount of time for a car to submerge in water. Even if you cannot open the door at first, the water pressure on the door will decrease as the difference between the water level outside the car and the water level inside the car decreases, so you may be able to open the door. Calmly assess the situation and push the door open as hard as possible.



Source: JAF website

3

Preparation and Actions for Other Disasters

Earthquakes are not the only disasters that can strike Tokyo. Many various risks can be assumed, ranging from natural disasters such as landslides, lightning strikes, tornadoes, heavy snow, and volcanic eruptions, to human threats such as terrorist and armed attacks, as well as infectious diseases. In this chapter, we have compiled knowledge on the various risks that lurk in Tokyo and measures to deal with them. Learn about them now so you can respond calmly, which could save your life.

Voice from experience

Although a lot of masks and other supplies were delivered to the evacuation center, I should have stocked up on dust goggles at home.

(70s, Eruption of Mt. Kirishima (Shinmoedake))

Voice from experience

Even though it was midsummer, the temperature suddenly dropped before the tornado, and I remember feeling coolness and stillness, as if the air had stopped.

(50s, July 2009 Tatebayashi Tornado)



Voice from experience

During heavy snow, a huge traffic jam was caused by abandoned cars that couldn't move.

(50s, Dec. 2010/Jan. 2011 Heavy Snow in the San'in Region)

Source: Edited and created based on Cabinet Office, "One Day Before Project", <https://www.bousai.go.jp/kyoiku/keigen/ichinitimae/index.html>

Sediment Disasters

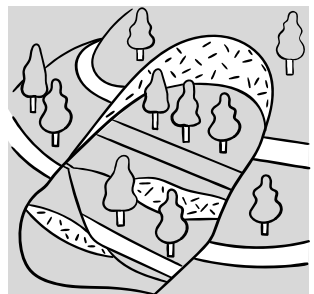
Signs of an impending sediment disaster

If you notice any of the following signs, evacuate quickly.



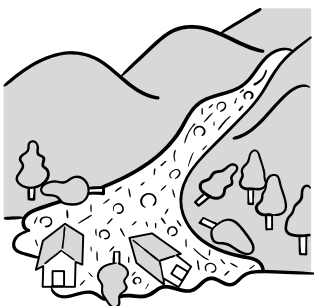
Landslip

Signs are cracks on cliffs, small stones falling down, water welling up on cliffs, spring water stopping or becoming cloudy or muddy, being able to hear the earth rumbling, etc.



Landslide

Signs are cracks and sinkholes in the earth, the ground developing clefts and becoming uneven, water spurting from cliffs and slopes, water in wells and streams becoming cloudy or muddy, sounds of rumbling from the earth or mountain, trees leaning, etc.



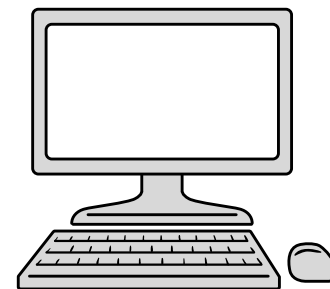
Mudslide

Signs are sounds of rumbling from the mountain, river water suddenly becoming cloudy or muddy and containing driftwood, an unpleasant earthy smell, the river level becoming lower despite continuous rainfall, the sound of trees being torn and stones bumping into each other, etc.

Protect yourself from a sediment disaster

Know the sediment disaster hazard areas

On the Sediment Disaster Hazard Area Map that is available at the Tokyo Metropolitan Government Bureau of Construction's website, sediment disaster hazard areas can be searched by region. A "sediment disaster hazard area" is an area where it is recognized that there is a risk of harm to the lives of residents in the event of a landslide, and where a warning and evacuation system should be specifically developed to prevent sediment disasters. Confirm in advance hazard areas in your neighborhood.



Sediment Disaster Hazard Area Map

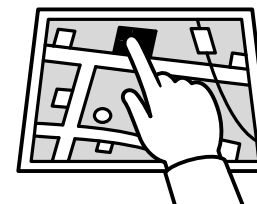
Prepare an emergency bag

Prepare a hazard map, a map of your evacuation area, and an emergency bag. If you feel in danger, change into clothes that are easy to move around in, and be ready to evacuate any time. When you evacuate, keep your baggage to a minimum so that you can keep your hands free.



Confirm your evacuation area

Regularly talk with your family about your designated evacuation area and how to contact each other, and confirm your evacuation routes.



⚡ Lightning

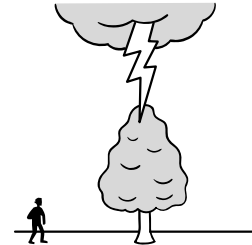


Lightning can be life threatening

Lightning can be life threatening. Although high places and tall, protruding objects attract lightning, more than half of those killed by lightning were actually in open areas such as a golf course, or under a tree taking shelter from the rain. If you hear thunder or see thunderclouds approaching, quickly move to a safe place, such as a reinforced concrete building, car, bus, or train.

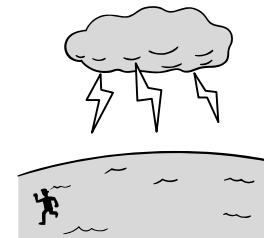
Areas where you must be cautious

Open areas such as a playing field, golf course, outdoor swimming pool, riverbank, beach, and on the sea can be dangerous. You also need to be on alert when you are in a high place, such as at the top of a mountain or ridge.



Stay away from tall objects like trees

Lightning often strikes tall objects like trees and tall, protruding objects. Therefore, when you are close to a tree, especially, keep at least 2 meters away from the tree (trunk, branches and leaves).



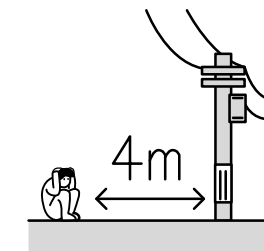
In an open space

It is dangerous to be in an open space like a playing field, because lightning could directly strike you. Quickly move to a safe place.



If there's no safe place nearby

If you cannot find a safe place nearby, take shelter at least 4 meters away from any tall object such as a utility pole. Maintain a low posture and make sure that nothing in your possession protrudes into the air.



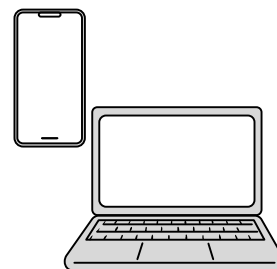
Tornadoes



Tornadoes can occur anywhere in Japan

Even in Japan, damage inflicted by tornadoes is occurring frequently in recent years. Although tornadoes occur at any time of year, more tornadoes are seen particularly from summer to autumn, when cumulonimbus clouds are most likely to develop. When a tornado forms, strong gusts of wind blow, pick up debris from the ground, including materials from buildings and signs, and turn these objects into dangerous projectiles, causing serious damage at times. To avoid danger, enter a sturdy building such as a reinforced concrete building or an underground facility and wait for the storm to pass.

Protect yourself when a tornado strikes



Check the areas where tornadoes are forecast

You can check areas where there is the probability of strong wind gusts, including tornadoes, ahead of time by viewing the Radar and Nowcasts weather map on the Japan Meteorological Agency's website and clicking on "Tornado."

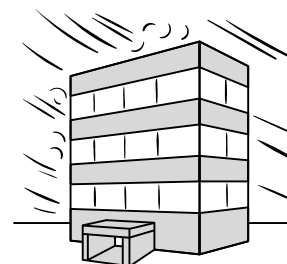


What is the Tornado Radar and Nowcasts?



If you are inside

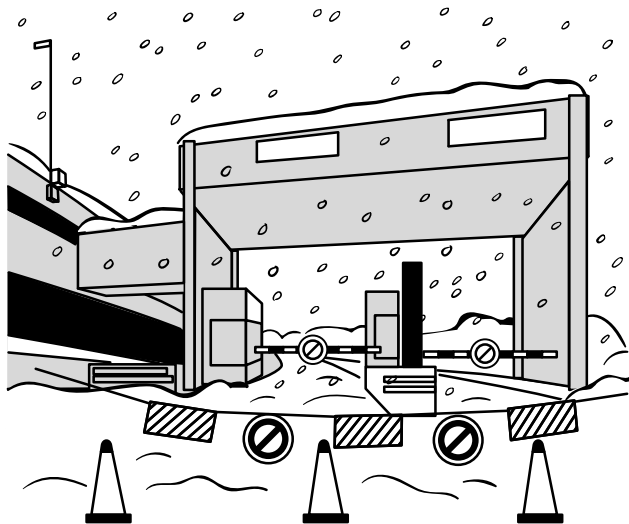
In a detached home, move to a room on the first floor that has few windows in order to avoid broken window glass and projectiles, or hide in the bathtub. Close the storm shutters and curtains, move away from windows, and wait for the tornado to pass.



If you are outside

Move inside a sturdy building or underground facility to avoid wind gusts and objects flying through the air. In the event you are not near any of these structures, take cover or hide in a ditch, and wait for the tornado to pass.

Heavy Snow



Heavy snow can paralyze a city

When snowfall is heavy, public transportation may shut down, expressways may close, and there is even the possibility that ordinary roads will become impassable. When heavy snow is forecast, you should return home as soon as possible and avoid going out again. Heavy snow in 2018 caused large-scale strandings in areas such as the Yamate Tunnel on the Metropolitan Expressway. 230 km of the Expressway was closed, more than 70% of its total length, and it took 97 hours for it to be completely restored. Due to the effects of global warming, in recent years heavy snowfall sometimes occurs over a short period of time, so using winter tires will not necessarily be safe. It is necessary to be mentally prepared and ready with a shovel for shoveling snow.

Protect yourself from heavy snow

Avoid commuting to work or school

If heavy snow is forecasted, stockpile enough food so that you will not need to leave home, and make preparations to stay warm without electricity in case of a power failure. Also, be sure to return home as soon as possible if you are out.



Be careful not to slip

When it snows and afterwards (especially the morning after heavy snow), roads become extremely slippery. If you go outside, put on slip resistant footwear such as snow boots, and be very careful as you walk. Do not ride bicycles or use cars.



If you usually use a car

Refrain from using your car as much as possible. If you must drive, change your tires to winter tires for use on snowy and icy roads, and prepare a shovel, boots, blanket, and emergency food. Be sure to maintain at least double the distance between vehicles that you normally would, and do not brake or swerve suddenly.



Points to be aware of when shoveling or removing snow

When shoveling snow or removing it from your roof, use equipment such as safety lines and helmets, put on slip resistant footwear, and always work in a group of two or more. Since snow that has accumulated on the roof loosens as it melts on sunny days, take care to avoid snow that slides off the roof.

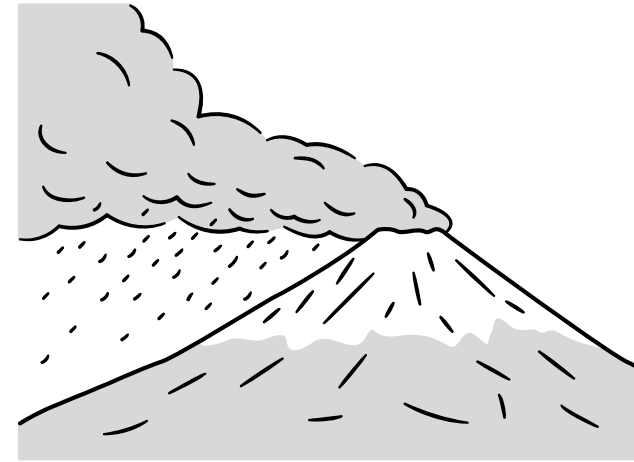


Volcanic Eruptions



There are 21 active volcanoes in Tokyo

Tokyo has 21 active volcanoes on its islands such as Izu Oshima and Miyakejima, and people are living on eight of those volcanic islands (Izu Oshima, Toshima, Niijima, Kozushima, Miyakejima, Mikurajima, Hachijojima, Aogashima). In recent years, eruptions on Izu Oshima in 1986 and Miyakejima in 2000 led to the evacuation of all the residents from the islands. Since November 2013, a magma eruptions have repeatedly occurred on Nishinoshima island of the Ogasawara islands, and the lava flow has increased the island's area.



Effects of a Mt. Fuji eruption

If Mt. Fuji erupts as it did in 1707, volcanic ash will fall on a wide area of the Kanto region, and it is estimated that up to 10 centimeters of ash will fall on some areas of Tokyo. Ash will not only affect the transportation system, lifelines, and the agriculture, forestry, and fisheries industries, but could also affect health. If Mt. Fuji erupts, confirm the ash fallout forecasts on the Meteorological Agency website and make preparations in advance if you are in an area that will have a large volume of ash fallout.

Protect yourself from a volcanic eruption

Don't overlook warnings of eruption

When the Meteorological Agency announces a volcanic warning, restrictions on mountain entry, evacuation orders and evacuation of the elderly, etc. will be issued. Follow the instructions. If you feel even slightly endangered, evacuate.



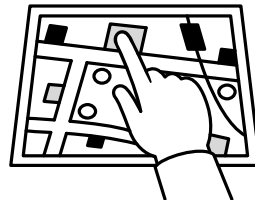
Volcanic alert level

The volcanic alert levels in volcanic forecasts/warnings are classified from 1 to 5 according to the degree of volcanic activity. Take actions suitable to the level.

Level 5	Evacuate from dangerous residential areas
Level 4	Evacuate elderly people and other people who require special care in residential areas that require vigilance, and prepare for evacuation in residential areas
Level 3	Mountain climbing and entering mountains is prohibited, and entering danger zones near residential areas is restricted
Level 2	Entering the area around the crater is prohibited
Level 1	Be aware that it is an active volcano, follow local government regulations, and do not enter dangerous areas

Confirm the dangerous areas on the disaster prevention map

It is important that you confirm the dangerous areas and evacuation centers beforehand using disaster prevention maps (which show dangerous spots, evacuation routes, evacuation centers, etc.) made public by the municipality or others.



Source: Japan Meteorological Agency "Explanation of Volcanic Alert Levels" from the Japan Meteorological Agency website

Prepare food and items for a disaster

When a volcano erupts, the ashes may affect logistics and lifelines. Prepare drinking water, food, flashlights, extra fuel, and other necessities. It is also better if you prepare helmets, masks and goggles as protection against dust.



Check the designated evacuation area beforehand

When an evacuation order or evacuation of the elderly, etc. is issued due to a volcanic eruption, quickly evacuate to the municipal government's designated evacuation area. Confirm in advance the location of the designated evacuation area nearest to you.



If an eruption occurs

Put on protective headwear such as a helmet, and while taking steps to prevent yourself from inhaling volcanic ash and gases such as holding a towel to your mouth, quickly evacuate to a safe place such as a shelter.

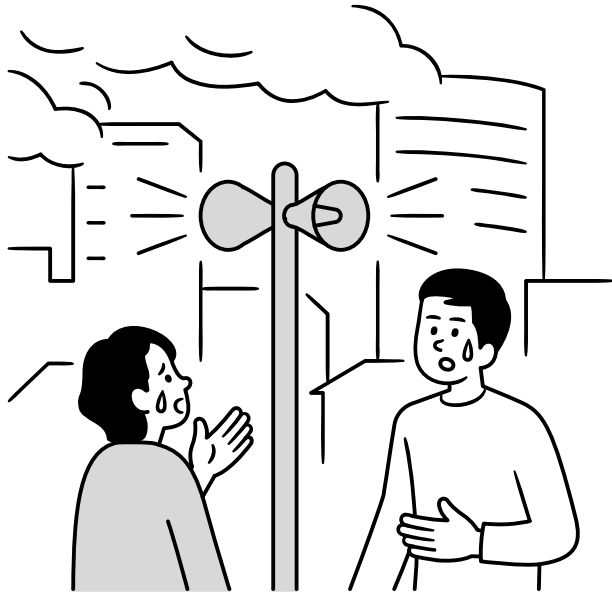


Be careful of volcanic ash

When the volcano erupts, volcanic ash will fall along with large and small cinders. Breathing in ash will affect the respiratory system causing coughing or breathing difficulties, and will also cause eyes to become itchy, painful or bloodshot, so protect yourself with dust masks and goggles. Also, take care as there is a risk of traffic hazards such as skidding accidents due to poor visibility and damp conditions due to volcanic ash.

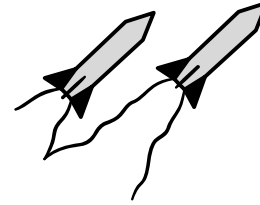


Terrorist and Armed Attacks



Danger of terrorist and armed attacks

As Tokyo is the center of government and economy, it could become the target of terrorist and armed attacks. The Act Concerning the Measures for Protection of the People in Armed Attack Situations, etc. (“Civil Protection Act,” Act No. 112 of 2004) was enacted with the aim of protecting the lives and assets of the citizens of Japan. Based on this act, in the event of an attack, the public will be warned through the municipalities’ wireless emergency alert systems. Make a note to listen to information broadcast over social media, television, radio, and other media, and follow the instructions.



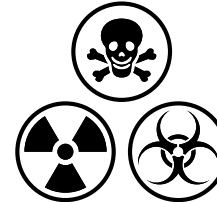
Missile attack

It would be extremely difficult to identify the target of the attack, and it is estimated that the time to impact will be short.



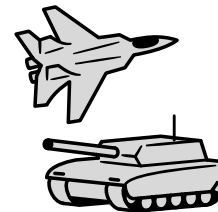
Attack by insurgents or special forces

Such an attack can result in sudden, unpredictable damages. If the target of an attack is a nuclear facility, the damages could be huge.



Attacks using chemical agents, etc.

Attacks using chemical or biological agents, or nuclear materials will have health effects, requiring special response.



Landing invasion and air attacks

In an invasion, landing operations are likely to target the coastal areas, and it can be assumed that air attacks will target major facilities in urban areas.

Protect yourself from a terrorist or armed attack

When there is a risk of terrorism or armed attack, try to obtain information by paying attention to the television, radio, and internet news.



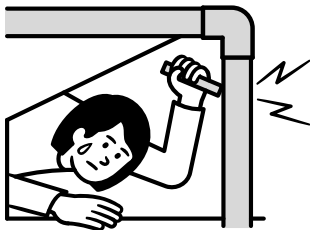
If an explosion occurs

If an explosion occurs, quickly get low and hide under something like a sturdy table. Explosions could continue, so evacuate to a safe place.



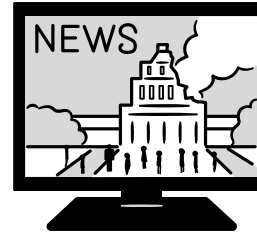
If a fire breaks out

If a fire breaks out due to a terrorist or armed attack, cover your mouth and nose with a handkerchief, etc., to keep from inhaling smoke, and quickly evacuate while keeping yourself as low as possible.



If you're trapped

Tap on pipes or other things nearby to let others know where you are. Calling out loudly for help should be the last resort since this could cause dust to be breathed in.



Evacuation from an attack by insurgents

The damage from an attack by insurgents will generally be limited to a relatively small area, but the damage may spread. First evacuate indoors and then follow the instructions of the authorities.



Evacuation from chemical or biological attacks

Cover your mouth and nose with a handkerchief, and leave the area immediately. Evacuate to a safe place that is unlikely to become contaminated such as a closed-off place indoors or high ground upwind.

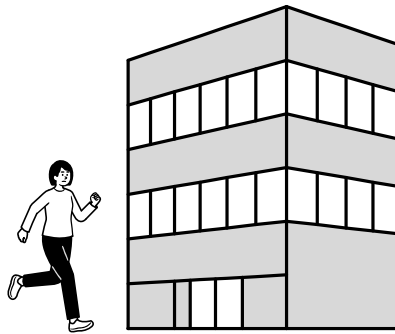


Evacuation from a nuclear explosion or radioactive contamination

Hide behind cover and evacuate to an underground facility or strong building. An explosive called a “dirty bomb” will cause radioactive contamination of the area. Follow the instructions of the authorities and consult a physician.

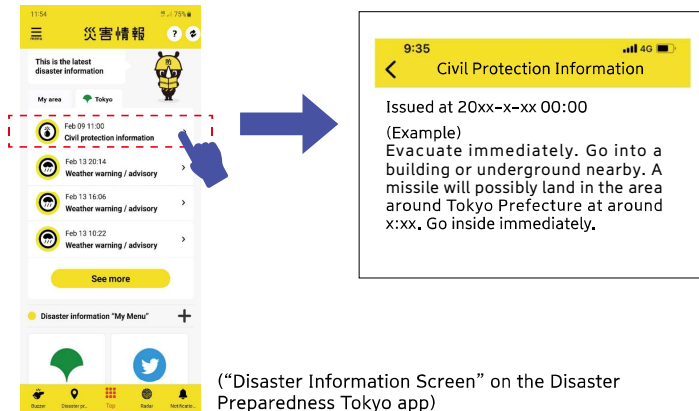
Evacuation from a missile attack

Militarily powerful countries are concentrated around Japan, and there is a noticeable trend toward further strengthening of military power and increased military activity. In particular, North Korea has launched ballistic missiles in quick succession since September 2021 and has been repeating missile launches at an unprecedented rate since the beginning of 2022. These military moves by North Korea pose a grave and immediate threat to Japan's security.



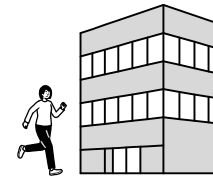
Issuance of warnings via J-Alert

If there is a possibility that a ballistic missile may fall on Japan, the National Early Warning System (J-Alert) which can instantly transmit information, will be activated. In addition to a special siren sound and message being played over the wireless emergency alert system, emergency information will also be sent via emergency alert email to mobile phones. A notification will also be received from the Disaster Preparedness Tokyo app as soon as a J-Alert is issued.



(“Disaster Information Screen” on the Disaster Preparedness Tokyo app)

If you hear a J-Alert



Run away

When you're outdoors

Evacuate inside a nearby building or a basement (a sturdy building is best).



Move away

When you're indoors

Move away from windows or to a room with no windows to avoid being injured by broken glass from a blast.



Protect yourself

When there are no buildings

Hide behind something or get low and protect your head.

*The Tokyo Metropolitan Government is progressing the designation of sturdy buildings and underground facilities as “emergency temporary evacuation facilities,” which are temporary evacuation facilities intended to reduce the direct damage from the blast waves caused by a missile attack.

It is important to evacuate to the nearest building or basement as soon as possible. When doing so, evacuate to a sturdy building or underground facility if there is one nearby.

If a ballistic missile falls

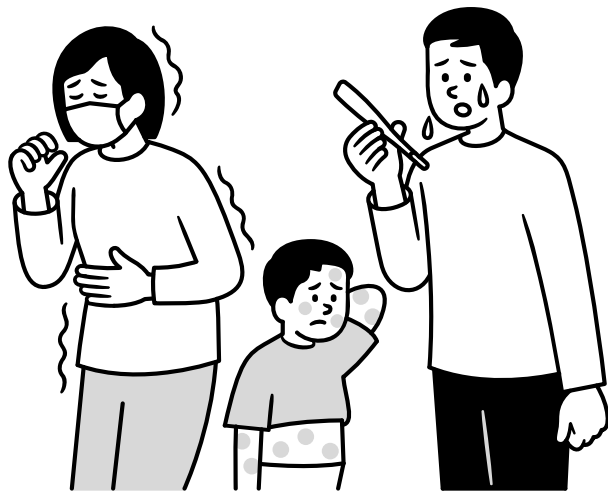
Missiles may contain toxic substances. As a precaution, if you are outdoors, cover your mouth and nose with a handkerchief, move away from the area immediately, and evacuate to a well-sealed indoor location or upwind. If you are indoors, turn off ventilation fans, close the windows, and seal the room.



Civil Protection Portal Site
Evacuation facilities



Infectious Diseases and Pandemics



If there is an infectious disease outbreak

Infections occur when pathogens such as viruses or bacteria enter your body and multiply, resulting in symptoms such as fever, diarrhea, and cough. Infectious diseases from influenza to COVID-19, which spread throughout the world from December 2019, to the Ebola virus disease, from those with a low risk of death to those with a high risk of death, are designated under the Act on Prevention of Infectious Diseases and Medical Care for Patients Suffering Infectious Diseases (Act No. 114 of 1998). If a proper response is not taken, these diseases can spread rapidly in Tokyo with its high population density. If you think you might be infected, immediately get proper treatment at a medical institution.

Classification and approach to major infectious diseases

Category	Designated infectious diseases	Approach to the Category
Class I infectious disease	Ebola hemorrhagic fever, plague, Lassa fever, etc.	Infectious diseases that are extremely dangerous in terms of their transmissibility and the severity if infected
Class II infectious disease	Tuberculosis, SARS, MERS, avian influenza (H5N1, H7N9), etc.	Infectious diseases that are dangerous in terms of their transmissibility and the severity if infected
Class III infectious disease	Cholera, bacillary dysentery, typhoid, etc.	Infectious diseases that can cause an epidemic outbreak through employment in specific occupations
Class IV infectious disease	Rabies, malaria, dengue fever, etc.	Infectious diseases that can be transmitted to humans through animals, food, and other objects
Class V infectious disease	COVID-19, influenza, chlamydia, etc.	Infectious diseases for which the government conducts surveys of infection trends, and based on the results, provides and discloses necessary information to the general public and medical professionals to prevent their outbreak and spread

Source: Ministry of Health, Labor and Welfare "Classification and Approach to Infectious Diseases Subject to the Infectious Diseases Law" <https://www.mhlw.go.jp/content/10906000/000957753.pdf>

Basic infection control measures

1 Avoid the three Cs (closed spaces, crowds and close quarters).

Avoid closed spaces with poor ventilation, crowded places where there are many people within arm's reach, and close-contact situations where people are speaking at close range.

2 Avoid unconsciously touching your eyes, nose, and mouth with dirty hands

Viruses enter the body through mucous membranes. Be careful not to touch above your neck before washing your hands or using alcohol disinfectant.

3 Wash your hands and disinfect with alcohol frequently

The basics of hand washing are to wash your hands with soap and running water and dry them with a paper towel. If you don't have something to dry your hands with, let them dry naturally.

Pay attention to your health after returning from abroad

If you feel unwell after returning from abroad, there is the risk that you have contracted an infectious disease. Be careful if you have symptoms such as diarrhea or fever after your return. Go to a medical institution as soon as possible.



Infection control measures during a disaster

If a disaster occurs while an infectious disease such as Covid-19 is spreading, the government will call for cooperation in “dispersed evacuation” as a measure to prevent infection. However, if your home is not safe, you will have to live in a designated evacuation center with many other evacuees. As there may be situations where it is not possible to secure a room specifically for infected people, it is important to prevent clusters (group outbreaks) from occurring.

Prioritize evacuating in a small group or individual space

Avoid crowded places with many people and prioritize evacuating in a “small group and individual space” such as your home or a relative's home. If you must evacuate to an evacuation center, it could also be necessary for people to evacuate to hotels, lodging facilities, and community centers as well as private facilities that are not designated as an evacuation center, rather than gathering in large numbers at designated evacuation centers.

Search for a place with a private room

People who have been diagnosed with an infectious disease and those who have not stay in separate rooms as much as possible. When a person suspected of having an infectious disease evacuates, care must be taken to ensure that the dignity of each individual is protected, no matter the circumstances. Best efforts will be made to deal with the situation, including transporting people to hospitals and finding private rooms.

Avoid bringing, taking away and spreading viruses

Volunteers and other support people will undergo thorough health checks and hygiene measures. Precautions should be taken to prevent the spread of infection by not bringing viruses into or carrying them out of disaster-affected areas.

Necessary preparations for infectious diseases

The basic measures against infectious diseases such as Covid-19 are hand washing and cough etiquette, including wearing a mask. Remember to wash your hands with soap, disinfect them with alcohol, or wipe them with a disinfectant wipe before and after touching shared items, when returning home from an outing, before and after cooking, before eating, and after taking out garbage. Furthermore, knowing what items to prepare for the infection control measures that will be necessary at home and at evacuation centers will provide peace of mind in an emergency.

At home

Things to stockpile at home

- Hand washing detergent/soap
- Alcohol disinfectant
- Disinfecting wipes
- Wet wipes
- Antibacterial towels
- Paper towels
- Masks
- Gloves
- Wet body wipes
- Alcohol spray
- Mouthwash
- Wet wipes for cleaning your teeth
- Denture cleaning agent
- Thermometer
- Bottled water
- Medicines (regularly used/stockpiled medicines)



*Water may be cut off during a disaster. To clean your hands when water is not available, wipe them with a disinfectant wipe or wet tissue to reduce the amount of virus. Wiping them with a tissue moistened with bottled water is also effective.

Evacuation center

If you are staying at an evacuation center due to a disaster, be sure to practice thorough infection prevention measures, such as hand hygiene and cough etiquette, even more so than you do at home.

Things to prepare for an evacuation center

Items you should take to an evacuation center

- Hand washing detergent/soap
- Alcohol disinfectant
- Kitchen detergent
- Paper towels
- Alcohol spray
- Masks
- Thermometer
- Goggles



Things you should stockpile at all times

- Bottled water
- Toothbrush set
- Mouthwash
- Denture cleaning agent
- Tissues
- Wet wipes
- Antibacterial towels
- Medicines (regularly used/stockpiled medicines)



Complex Disasters

A complex disaster is a disaster event in which multiple disasters occur simultaneously or in succession, increasing the damage and increasing the difficulty of responding to the disasters. There is the concern that the damage will be intensified, more widespread, and prolonged when similar or different types of disasters occur simultaneously or close to each other in time, such as an earthquake with storm or flood damage, or an infectious disease with an earthquake. It is necessary to also keep these situations in mind.

Earthquake + Heavy Snow: Chuetsu Earthquake

In the October 23, 2004 Chuetsu Earthquake with its epicenter in Ojiya City, Niigata Prefecture, the earthquake occurred at 5:56 pm with a maximum seismic intensity of 7 observed in Kawaguchi Town, where the shaking was strong, followed in quick succession by earthquakes with a seismic intensity of 6 Upper at 6:11 pm and 6:34 pm. There were 46 people killed and 4,801 injured in this earthquake, and many of the deaths were caused by buildings collapsing and landslides called slope failures. Niigata Prefecture has always been an area prone to sediment disasters such as landslides and mudflows. In particular, many landslides occurred due to the earthquake in the area centered around Yamakoshi Village. Furthermore, the Chuetsu region experienced its heaviest snowfall in 19 years that year, and in addition to the earthquake damage, numerous avalanches and sediment disasters occurred; and the damage was further exacerbated by the collapse of buildings due to accumulated snow. Heavy snowfall also delayed reconstruction work in the following year, and it was 2 years and 10 months before all of the residents of Yamakoshi Village returned to their village.



Large-scale landslide over a prefectural road in Myokenmachi, Nagaoka City [Photo provided by Kyodo News]

Earthquake + Infectious Disease: Kumamoto Earthquake

The Kumamoto Earthquake consisted of two earthquakes that occurred on April 14 and 16, 2006, with a maximum seismic intensity of 7. There were 276 deaths including disaster-related deaths, and in Kumamoto Prefecture alone more than 198,000 houses were damaged. As a result, many people took shelter in evacuation centers, and nine days after the earthquake there were still more than 67,000 people in evacuation centers in Kumamoto Prefecture. Around that time, there was a sudden increase in the number of evacuees complaining of diarrhea and nausea at some of the evacuation centers in Kumamoto Prefecture, and norovirus was detected in some patients. Due to a water outage at the evacuation center, people used water kept in buckets to wash their hands after using the toilets, resulting in poor sanitary conditions. Furthermore, as preparation against the frequent aftershocks, many people wore their shoes inside the evacuation center, increasing the risk of norovirus being brought into the residential area from the toilets. After norovirus was detected at an evacuation center, infection control measures such as prohibiting the wearing of shoes inside and disinfecting the toilets with hypochlorous acid were implemented.

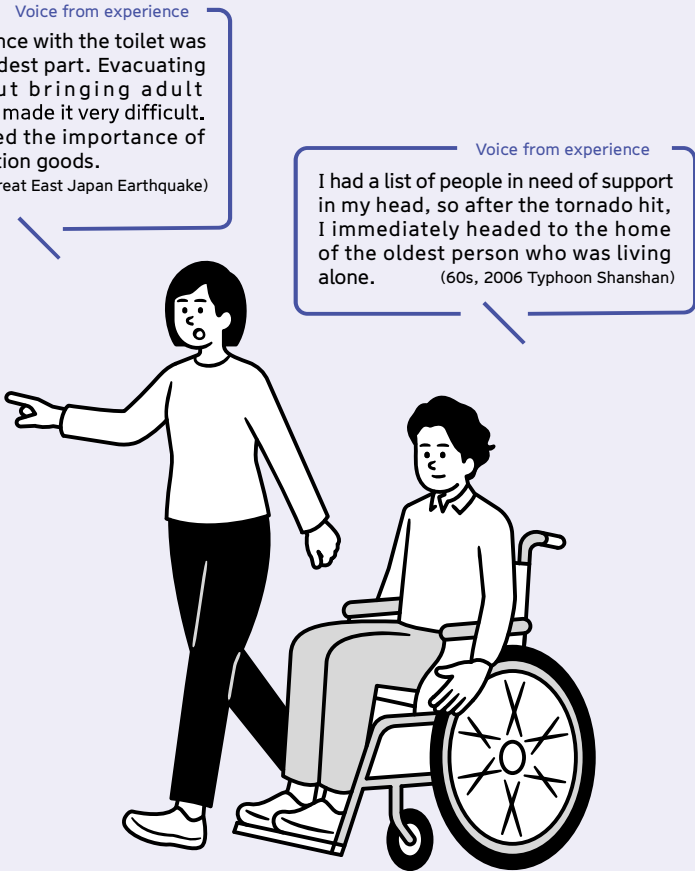


Many houses collapsed due to strong shaking in the Terasako district of Mashiki Town, Kumamoto Prefecture [Photo provided by Kyodo News]

4

Disaster Preparedness for Diverse People

Not only people who need support, such as those with disabilities, but also people without such needs will have to help each other while living together in a large group at an evacuation center. If each person prepares for disaster with a desire to understand others, more lives can be saved and it will lead to smoother care and recovery after a disaster.



Voice from experience
Assistance with the toilet was the hardest part. Evacuating without bringing adult diapers made it very difficult. I learned the importance of evacuation goods.
(60s, Great East Japan Earthquake)

Voice from experience
I had a list of people in need of support in my head, so after the tornado hit, I immediately headed to the home of the oldest person who was living alone.
(60s, 2006 Typhoon Shanshan)

Voice from experience
The toilet was the biggest problem for my daughter, who uses a wheelchair. She had a hard time going to the toilet, and I felt that I should have prepared portable toilets.
(60s, September 2000 Heavy Rain in the Tokai Region)

Source: Edited and created based on Cabinet Office, "One Day Before Project", <https://www.bousai.go.jp/kyoiku/keigen/ichinitimae/index.html>



Daily Measures for People Who Need Support

People who need support are less able to move quickly or make quick decisions, so preparing in advance will help for a smoother life after a disaster. Keep the following points in mind while discussing in advance with the person who needs support, their support persons, family doctor, and welfare facility staff, and create an individual evacuation plan. It is also important for people who need support to assist each other.

Knowledge of evacuation

People who need support require more specific knowledge and preparation that takes into account the characteristics of their disability, etc.



Discussing evacuation

It is essential to have discussions not only with the person who needs support, but also with their support persons, neighbors, and medical personnel (page 195).



Safety check and measures

It is essential for people in need of support, who are unable to take immediate action, that their surroundings be maintained in order to protect their lives.



Prepare evacuation supplies

It is necessary to stock up with enough medicines, medical supplies, etc. to last for three days to one week.



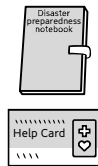
Create an individual evacuation plan

Create an evacuation plan that specifies the necessary medical and welfare care and specifies who will provide support (page 194).



Disaster preparedness notebook, Help Card

Having a disaster preparedness notebook or a Help Card (page 266) that you can carry with you at all times will be useful for life after a disaster.



Interaction with the local community

Proactively create opportunities to interact with your local community on a regular basis to become familiar with as many people as possible.



Participate in disaster preparedness drills

Participating in community and workplace disaster preparedness drills as much as possible will help those around you gain an understanding.

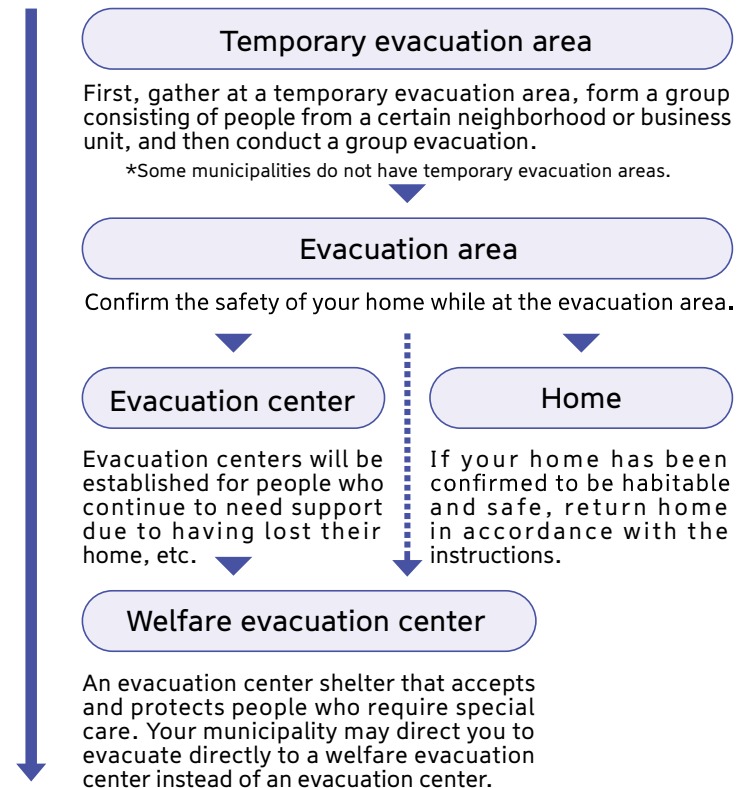


Evacuation Flow Chart for People Who Need Support

Make the decision whether to evacuate based on information provided via your municipality's website, wireless emergency alert system, public broadcast vehicles, etc. Also, decide in advance with your municipality how you will receive information.

Try to Evacuate Early

People who need special care in the event of a disaster will need to begin evacuating at the stage that evacuation information indicates "Evacuation of the elderly, etc."





Creating an Individual Evacuation Plan

An individual evacuation plan is a plan that is created to support the evacuation of a person who cannot evacuate by themselves and requires support to evacuate, such as an elderly person or a person with a disability. In addition to plans created by a municipality, an individual evacuation plan created by the person in question, a relative, or a local organization and is submitted to the municipality can also be treated as individual evacuation plan.

When creating an individual evacuation plan, it is necessary to confirm in advance the location of the evacuation area or evacuation center that the person who needs support will evacuate to, what route from the person's home is the safest to use, whether there are any buildings that may collapse or areas that may have a landslide along the route, and whether it is possible to evacuate to higher ground in the event of a flood, and write these details on an evacuation route map. Also, be sure to consult carefully with the people around you who will provide support.

Points when creating

- Try to use wide roads for your evacuation route, as narrow roads may become impassable due to fallen objects, etc.
- Write down block walls that are considered dangerous, as well as stairs and bridges that should be avoided.
- If possible, prepare several evacuation routes. Also, create an evacuation plan that specifies the necessary medical and welfare care and specifies who will provide support.



Discussing Evacuation

Discuss specific methods

Decide upon the evacuation methods, evacuation routes, communication methods, division of roles, etc. with family, support persons, and workmates.



Share the plan with neighbors

It is essential to have discussions not only with the person who needs support, but also with their support persons, neighbors, and medical personnel.



Considerations for routine treatment

Regularly share information with your family doctor about evacuation methods and responding to an emergency during a disaster.



Rely on relatives and acquaintances outside the disaster area

If it is difficult for an evacuation center or welfare evacuation center to assist you, consider evacuating to a relative or acquaintance's house outside the disaster area.



If a disaster occurs while you are out

If you have difficulty making or receiving contact by yourself, ask your guardian or support person to make contact to confirm your safety. Also, when going out, wear a Help Mark (page 266) or Mark for Expectant Mothers, and also carry a disaster preparedness notebook or Help Card.



Help Mark



Preparations for Managing Health

In a disaster, people's lives and activities may be restricted, their appetite may decrease, and they may become malnourished. Consult a doctor, nurse, or dietician in advance about nutritional balance and easy-to-eat meals.

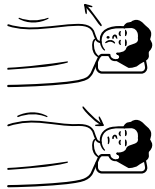
Prevent acute exacerbation of conditions

Physical and mental fatigue caused by the shock of a disaster and sudden change in the environment can cause infections and worsen complications. Consult a doctor immediately if you experience any of the following symptoms in a different manner than usual.

- Sluggishness, severe fatigue, loss of appetite, inability to sleep
- Decreased urine output, swelling
- Palpitations, severe shortness of breath, occasional difficulty breathing
- Fast or irregular heartbeat
- Fever
- Sputum has increased and become colored
- Cold sweat or coldness in the extremities
- Yawning a lot
- Nails and lips have turned purple, etc.



Example of Assistance



In a comfortable position, repeat a pattern of breathing through pursed lips, followed by abdominal breathing.

The support person should spread their hands out to cover the lower ribs.

Put squeezing-like pressure on the person's ribs as they exhale.

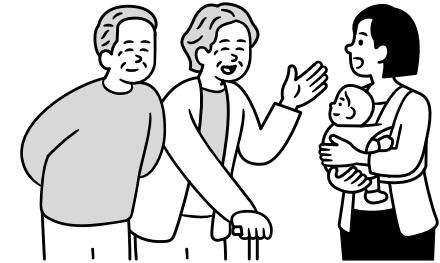
It takes practice to master the assisted breathing method described above. It is a good idea to learn it by receiving guidance from a hospital doctor or nurse, or by participating in a respiratory class at a local health and welfare center.



Disaster Preparedness Measures by Group

Elderly people and people with health concerns

Informing not only family members living together and separately, but also neighbors through regular interaction, that there is a person who needs support will be helpful in a disaster. Ensure furniture will not fall over and onto your head in a disaster. Have your bedroom as close to the exit as possible.



Prepare the following items in your emergency bag as necessary

- ◻ Regular medicines (at least 3 days worth)
- ◻ Denture cleaning agent
- ◻ Hearing aid batteries
- ◻ Disposable diapers (quantity needed for a while)
- ◻ Change of clothes (underwear, pants and outerwear)
- ◻ Baby carrier
- ◻ Vinyl sheets (for changing diapers and clothes)
- ◻ Injections (if tube feeding, 5 to 7 days worth)

Points for creating an evacuation plan

- If use of a wheelchair is planned, try actually moving to the evacuation area or evacuation center using the wheelchair. Check to see if there are any obstacles that could hinder evacuation, such as steps, abandoned bicycles, or signs placed on the street, and discuss specific evacuation methods with your local neighborhood association, community association, or your neighbors.
- Set a route that avoids utility poles, buildings, etc. that may fall down in the event of a disaster.
- Leave the map in a visible place, such as near the entrance, so that those who come to the rescue can find it, and also keep a copy in your emergency bag.

Dos and Don'ts at an Evacuation Center

Self

Check whether you can use the toilet by yourself, and if not, ask a member of staff for help. In addition, if the symptoms of dementia become more severe due to changes in the environment, it can be addressed such as by consulting at a consultation desk or first aid station.

Support person

Inform the staff at the reception desk that the person has been certified as requiring long-term care and that they have symptoms of dementia. If they have mobility issues, ask for a place where they can easily go to the toilet.

Visually impaired persons

If the surrounding environment has changed significantly after a disaster, it may become difficult to move around alone. Participate in local disaster preparedness drills with your neighbors on a regular basis and discuss supporting each other in a disaster. Decide on a meeting place with your family that is easy to find.



Prepare the following items in your emergency bag as necessary

- Spares of special lenses, etc.
- Work gloves
- White cane (foldable type)
- Vision explanation card (people with weak vision)
- Braille board
- Food and care items for your guide dog

Points for creating an evacuation plan

- There are two types of maps for persons with severe visual impairments to use to walk: mental maps that are memorized and tactile maps that can be felt with the hands.
- Evacuation areas and evacuation routes should be decided by walking along several routes with someone who can see and have them convey information.

Dos and Don'ts at an Evacuation Center

Self

Seek the necessary support, such as a guide who can tell you about toilets, entrances and exits, changes in conditions, and information about the distribution of food and relief supplies. Be placed in an area that has handrails and is easy to move around.

Support person

It can be difficult to move around in a crowded space, so guide the person to a place where it is easy to move around. Also, when calling out to someone, do not grab their arm directly from behind.

Hearing impaired persons

If using the phone to contact people is difficult, it is important to decide on alternative contact methods. Also, maintain relationships with your neighbors so they can provide you with information that is broadcast on the TV, radio, wireless emergency alert system, etc. in a disaster.



Prepare the following items in your emergency bag as necessary

- Hearing aid batteries
- Written communication tools
- Device that can receive text information
- Portable TV (with subtitle display)
- Armband showing the Mark for the Hearing Impaired
- Food and care items for your hearing dog

Points for creating an evacuation plan

- Use wide roads for your evacuation route, as narrow roads may become impassable due to collapsed buildings, etc.

Dos and Don'ts at an Evacuation Center

Self

Inform staff of your hearing impairment when checking in. Wear an armband showing the Mark for the Hearing Impaired or a sign that indicates that you require interpretation into sign language.

Support person

Write down information about changes in the situation, the distribution of food and relief supplies, etc. Sign language is the preferred method of communication, but there are other ways to convey information, such as gestures and written communication. Written communication can also be done using a smartphone or using a finger to write on your palm.

Persons with a physical disability or intractable disease

If you require medical care, check in at the evacuation center and then go to a first aid station and consult about your condition. Also, decide how you will communicate with your regular medical institution. If you are using medical equipment at home, make sure to set it up so that it will not fall over in an earthquake.



Prepare the following items in your emergency bag as necessary

- Regular medicines (at least 3 days worth)
- Disposable diapers (quantity needed for a while)
- Change of clothes (underwear, pants and outerwear)
- Baby carrier
- Vinyl sheets (for changing diapers and clothes)
- Temperature control items (for those who have difficulty regulating body temperature)

Points for creating an evacuation plan

- If the use of a wheelchair is planned, check to see if there are any objects along the evacuation route that could become obstructions, and discuss specific evacuation methods with the people at your local neighborhood association or community association.

Dos and Don'ts at an Evacuation Center

Self

After checking in, go to the first aid station and inform them about your condition and the medical care you need. Also, check to see whether you can use the toilet provided at the evacuation center, and if not, consult with the staff.

Support person

Prepare a bed and chair that suits the person's body functions. In addition, if they have difficulty regulating their body temperature, guide them to a space with heating and cooling equipment.

Persons with an intellectual disability

Decide on a meeting place and what to do in case a disaster occurs while the person is out alone, or if they become separated from their family or support person during evacuation. It is also important to remind the person on a daily basis that they can ask for help from those around them if they are in trouble.

Prepare the following items in your emergency bag as necessary

- Items needed when taking medication (e.g. wafer to assist swallowing)
- Food that the person can eat

Points for creating an evacuation plan

- Use wide roads for your evacuation route, as narrow roads may become impassable due to collapsed buildings, etc.

Dos and Don'ts at an Evacuation Center

Self

Your days and nights may become reversed and you may become agitated due to being unaccustomed to living in an evacuation center, so consult with the first aid station if necessary. Ask to be able to live in the same area as an acquaintance or friend.

Support person

If the person is unable to show their disability certificate at the reception desk by themselves, help the person search in their belongings to see if there is anything to prove their identity. Describe how to live in the evacuation center using pictures or short sentences.

Persons with a mental disability

Regularly consult with your doctor about your illness and medications, and always carry your medication notebook with you. During a disaster, you may become more anxious and your symptoms may worsen, making it difficult to live in an evacuation center. Discuss how to address this with their doctor in advance.

Prepare the following items in your emergency bag as necessary

- Regular medicines (at least 3 days worth)
- Additional medicines (prepare after consulting with your family doctor)

Points for creating an evacuation plan

- Check with your regular support person about support you may require and who to consult with if your condition worsens.

Dos and Don'ts at an Evacuation Center

Self

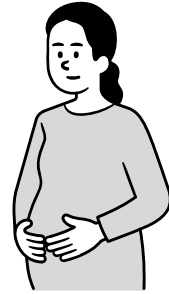
Be sure to remember to take your medication every day. If you receive an emergency prescription that is different from the medicine you usually take, consult with the doctor or pharmacist immediately and ask for an explanation. If psychiatric symptoms appear, take measures such as consulting with a first aid station.

Support person

If the person's condition remains unstable, their symptoms may worsen. Consult so you can be connected to professional support as soon as possible.

Pregnant women

During pregnancy, your physical and mental state may change significantly depending on how advanced your pregnancy is and the surrounding environment. If you are concerned about evacuating, let the people around you know. Even in the early stages of pregnancy, always wear the Mark for Expectant Mothers so that people can recognize that you are pregnant.



Prepare the following items in your emergency bag as necessary

- Maternity record book, health insurance card, hospital registration cards
- Water and food (items that provide nutrition)
- Food (for people with dietary restrictions due to gestational hypertension, gestational diabetes, etc.)
- Items in preparation for giving birth (in the third trimester, from around 28 weeks)

Points for creating an evacuation plan

- Use wide roads for your evacuation route, as narrow roads may become impassable due to collapsed buildings, etc.

Dos and Don'ts at an Evacuation Center

Self

Inform the reception at the evacuation center that you are pregnant. Carry the Mark for Expectant Mothers with you so that people around you know that you are pregnant.

Support person

Guide her to a place that is close to the toilet and distribution area. Prepare a private room or a space where she can lie down, and create an environment that is temperature controlled, clean, well-ventilated, and free from smoking.

Persons with an infant or young child

Discuss with your family and people around you about how to evacuate with your child. If your child attends a childcare facility, etc., discuss with the facility how to contact and hand over the child in the event of a disaster. Make sure that furniture and objects will not fall around the baby's crib.



Prepare the following items in your emergency bag as necessary

- Maternity record book, health insurance card, hospital registration cards
- Powdered milk, infant milk, baby bottles, disinfectant (even if the baby normally drinks breast milk)
- Baby food, snacks, drinks
- Allergy prevention products

Points for creating an evacuation plan

- Use wide roads for your evacuation route, as narrow roads may become impassable due to collapsed buildings, etc.

Dos and Don'ts at an Evacuation Center

Self

Inform the reception of the number of children and their ages. Check the areas for nursing, changing diapers, playing, etc. Inform the reception if your child has any allergies.

Support person

If there are several households that have children, placing them together will improve their convenience, such as ensuring peace of mind and receiving supplies. Be careful not to put any mental burden on children by making them feel guilty or avoiding them when they make noise or cry.

People with language difficulties

To assist foreigners and others who may not be able to communicate smoothly and express their wishes, create a help card in advance and organize the necessary matters. Also, if you have halal or other dietary requirements due to your religion, prepare food that suits your needs.



Prepare the following items in your emergency bag as necessary

- Help card for foreigners that describes the details of support
- Language card, emergency contact card
- Map in the person's language
- Hazard map in the person's language
- Food suitable for the person's culture

Points for creating an evacuation plan

- Check maps written in other languages against a Japanese map.

Dos and Don'ts at an Evacuation Center

Self

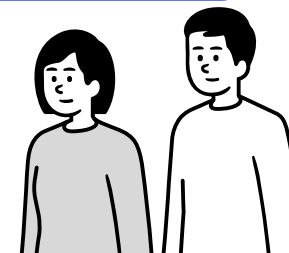
Inform the reception about how much Japanese you can understand. You may be unable to eat the cooked meals or boxed lunches that are provided due to your religion, so you will need to devise options.

Support person

Carefully communicate information such as meal times, when relief supplies will arrive, and how much will be distributed. Distribute translated information and go around the evacuation center with an interpreter.

Persons with concerns about ensuring privacy

Receiving support from friends in the same situation will provide peace of mind, so be sure to check your means of communication. Also carry at least 3 days worth of items and medicines that you need on a daily basis.



Prepare the following items in your emergency bag as necessary

- Regular medicines (at least 3 days worth)
- Sanitary products, underwear, shaver (in case it is difficult to receive supplies)

Points to consider when thinking about evacuation

- Considering that it may be difficult to live in an evacuation center, prepare a place to evacuate, such as a relative or acquaintance's house.
- You may need to provide your real name if your partner or friend inquires about you being missing. Give your name to someone you trust.

Dos and Don'ts at an Evacuation Center

Self

It may be difficult to use the toilets, bathing facilities, and changing rooms for men or women, so some evacuation centers will also have universal facilities. Set up a time slot for when each person can use them alone.

Support person

Consult with the staff regarding how to receive supplies that are based on gender, and devise a way for them to receive it individually. Do not inform others that the person belongs to a sexual minority without the person's consent.

Appendix

Survival Tips

When a disaster occurs, many emergencies arise in various places. These Survival Tips provide easy-to-understand explanations of knowledge that will be useful when a disaster occurs. If you know how to perform CPR, and how to use an AED and a fire extinguisher, you can protect your life and those of your loved ones in an emergency.

Disaster Facts and Information You Should Know

Summarizes the knowledge you need to know to deepen your understanding of disaster preparedness, such as how disasters such as earthquakes and wind and flood damage occur, knowledge about weather information necessary to respond to disasters, and symbols and signs that will be useful in the event of a disaster.

First Aid

CPR (Cardiopulmonary Resuscitation)



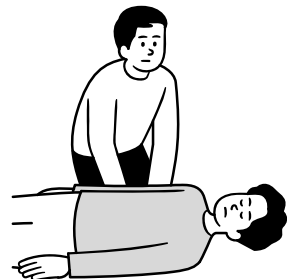
1 Check the person's reaction

In the event of a disaster, ambulances will probably be late in arriving. If you find a person who has collapsed, gently tap them on the shoulder and ask loudly, "Are you OK?" Check to see if they respond, can move their hands and feet, if they are in pain from injuries, and whether they are conscious or not.



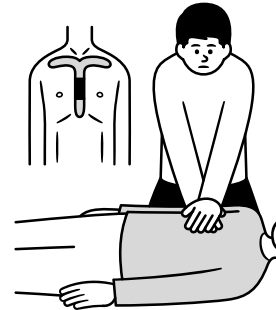
2 Request cooperation from others around you

If there is no response, request the cooperation of people nearby by calling out in a large voice, "Someone, please come! There's a person here who needs help!" In addition, if the situation is safe, request someone to bring an AED (automatic external defibrillator) and give first aid.



3 Check for breathing

Closely observe the movements of the person's chest and abdomen, and confirm within 10 seconds if his breathing is irregular. When there is no movement of the chest or abdomen, you can determine that the person is not breathing normally, and then begin chest compressions.



4 Chest compression

Place your hands on the center of the person's chest, and press the chest down firmly about 5 centimeters for an adult. Do about 100 to 120 compressions per minute. When you are conducting both chest compressions and artificial respiration, repeat in cycles of 30 chest compressions and 2 breaths.



5 Artificial respiration

Lift the person's chin to open the airway, and use the thumb and forefinger of your hand placed on their forehead to pinch their nose. Using a mouth-to-mouth resuscitation mouthpiece*, cover the mouth so no air leaks, and breathe in for about 1 second. Check to see that their chest rises when you do so.



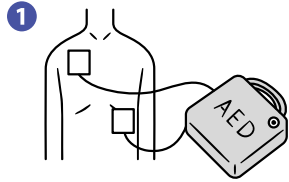
6 AED

Switch on the AED. Apply the electrode pads directly to the chest, and if a shock is needed the AED will inform you with a voice prompt. Stand clear of the person and push the AED's button. Follow the device's instruction and immediately resume chest compressions

How to use an AED
➡ Page 212

*The risk of infection is said to be extremely low even when a mouthpiece is not used, however, from the perspective of preventing infection, it is safer to use one.

AED



Switch on the AED and apply the electrode pads to the person's right chest and left side. (Wipe down these areas if they are wet with sweat, etc.)

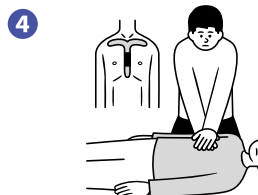


The AED will automatically perform an analysis of whether an electric shock is necessary (do not touch the person while the electrocardiogram analysis is being performed). If an electric shock is required based on the results of the electrocardiogram analysis, charging will start automatically and audio instructions will be given.



Once you are sure no one is touching the person, press the shock button.

* How to turn on an AED varies depending on the model, such as those that turn on when the lid is opened and those that have a power button.



After the shock, resume chest compressions, leave the electrode pads attached, do not turn off the power and follow the AED's instructions. Continue doing this until emergency personnel take over or until the person gives some kind of response or purposeful gesture, or until they are breathing normally.



An AED is to be used when the person's heart is for some reason not beating in a normal rhythm. An AED can be used if the electrode pads can be applied directly to the person's bare skin, for example by moving their underwear to apply them. After the electrode pads are applied, clothing may be placed on top.



AED installation locations (provided by the National AED Map Foundation)

Source: Tokyo Fire Department "How to perform CPR if you see someone collapse"
<https://www.tfd.metro.tokyo.lg.jp/life/kyuu-adv/life01-2.html>

*Created with reference to Tama Fuchū Health Center, "Don't hesitate to use an AED on women"

How to Stop Bleeding

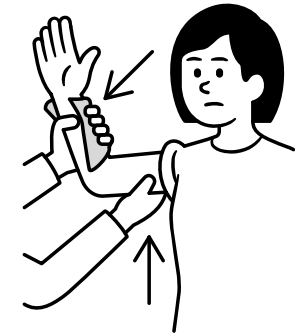
Direct pressure to stop bleeding

Directly apply sterile gauze or a clean cloth to the bleeding area and compress strongly with your hand or a bandage. The size of the cloth should be large enough to completely cover the wound. In order to prevent infection, always wear rubber gloves or use a plastic bag, and be careful to not come in contact with the blood.



Indirect pressure to stop bleeding

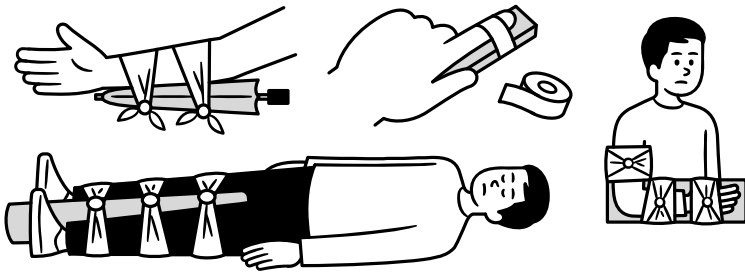
When it is difficult to stop the bleeding through the direct pressure method, try indirect pressure. Temporarily stop the flow of blood by pressing down on the artery between the injury and the heart, compressing it against the bone. For bleeding from the lower portion of the arm, use your thumb to strongly press the artery at the center of the inner side of the upper arm. For leg bleeding, straighten the bleeding leg and strongly press down at the groin using your fist.



Severe bleeding can be life threatening

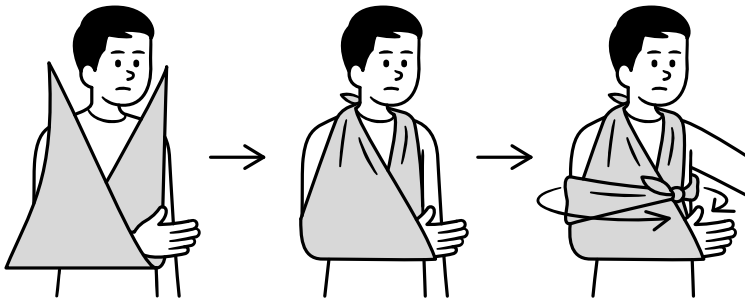
The total amount of blood in the human body makes up about 7 to 8% of the body's weight, and losing one-third of this blood can be life threatening. Arterial bleeding with bright red spurts of blood must be stopped immediately. Bleeding from capillary veins will, in most cases, stop naturally.

First Aid for Fractures and Sprains



Secure with a splint

Try not to move the part that has been broken and is painful. Prepare something that can serve as a splint to support the broken bone, and immobilize the injury by binding the splint and the joints on both sides of the fracture with a cloth, etc.



Triangular bandage

A triangular bandage can be used on any part of the body and scarves, furoshiki, and large handkerchiefs can also serve as triangular bandages. Use it after rinsing the wound clean with water and applying a sterile gauze, etc. Do not tie the knot right over the wound.

First Aid for Cuts

Things to prepare

Cloth, bandages, water, sterile gauze

1



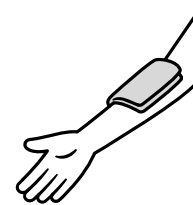
Prepare large pieces of cloth or bandages that can cover the wound.

2



If the wound has dirt or other debris, wash clean with water.

3



If the wound is bleeding, protect the wound by applying sterile gauze, etc.

4



Wrap a bandage.

First Aid for Burns



Cool minor burns with water

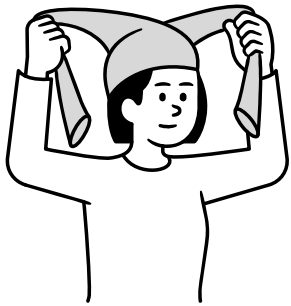
If the burn covers less than 10% of the body (the area of the palm of your hand is about 1% of the body surface), as soon as possible, cool with clean water for over 15 minutes until the pain eases.

Bandage Substitutes

Things to prepare

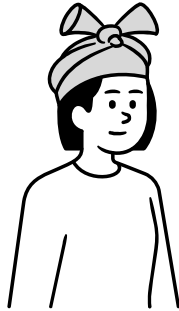
Gauze, tights

1



Use tights as a substitute for a bandage. First, place gauze, etc., over the wound and then cover with the body portion of the tights.

2

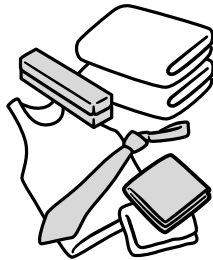


Wind the leg portion of the tights around the head and tie the ends. If they are washed and kept clean, they can be used repeatedly.

Other items that can be substitutes for bandages

- ▣ Bandana
- ▣ Handkerchief
- ▣ Tenugui towel
- ▣ Necktie
- ▣ Towels
- ▣ Curtains
- ▣ Underwear
- ▣ Disposable diapers
- ▣ Sanitary napkins
- ▣ Plastic wrap

*Only items that are clean

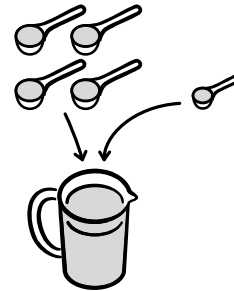


Treating Dehydration and Heatstroke



1 Loosen clothing

Place the person in a comfortable position and gently loosen their clothes, belt, and other constricting items.

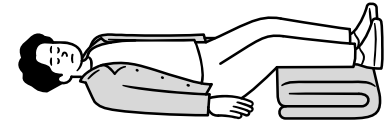


Prevent dehydration

Things to prepare

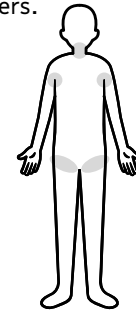
Water, sugar, salt

In order to prevent dehydration, it is a good idea to prepare an oral rehydration solution, which has an absorption rate that is about 25 times higher than water. The only things necessary are water, sugar and salt. Dissolve 4 tablespoons of sugar (about 40 grams) and 0.5 teaspoons of salt (about 4 grams) in 1 liter of water.



2 Elevate their legs

Lay the person face up and place cushions under their feet to raise their legs about 15 to 30 centimeters.



Body parts that should be cooled

You can adjust your body temperature by heating or cooling the back of your neck, under your arms, and your groin.

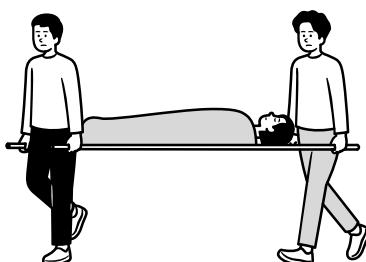
! Transporting the Injured or Ill

① When carrying



① Carry on your back

Lean the person on your back and catch their legs by passing your hands under their knees, and hold both of their arms firmly. This is not suited to injured people who have disorders of consciousness, broken bones, or internal injuries.



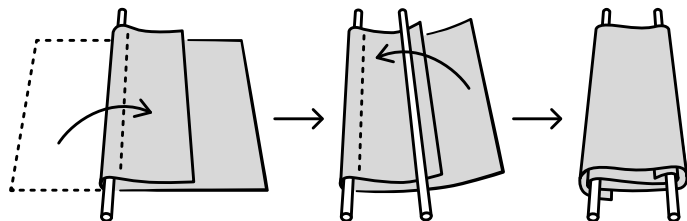
② Using a stretcher, etc.

When carrying a person on a stretcher, have his legs point forward and try to avoid shaking the stretcher or causing it to vibrate. This is very important to prevent the condition of the victim from worsening.

If there is no stretcher

Things to prepare

Sturdy sticks (2m x 2), blanket (1)

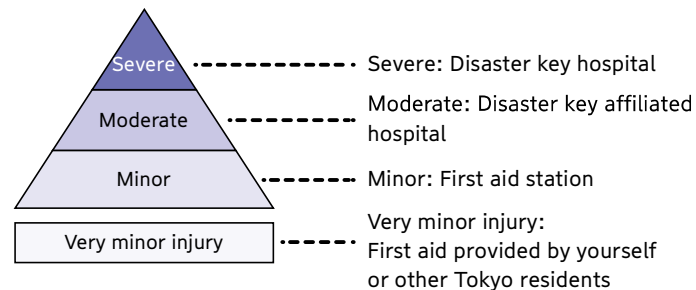


Spread out the blanket and place a stick one-third in from the side. Fold the blanket over so it wraps the stick. Place the other stick at the edge of the blanket and fold the rest of the blanket over so that the stick is wrapped. You can also use a sturdy plank as a substitute.

② Where to carry them

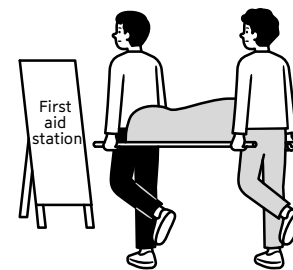
Hospitals are in chaos during a disaster

It is expected that many injured people will need to be treated when a large-scale earthquake occurs, so hospitals will be overflowing with people. For this reason, first aid stations are set up in front of hospitals and schools.



Go to a first aid station first

At first aid stations set up in front of hospitals and schools, first aid teams consisting of doctors, dentists, pharmacists, nurses, ward staff, etc. will perform triage (classifying the sick and injured). Information on where first aid stations will be set up in the event of a disaster can be found on each municipality's website, so be sure to check in advance. However, transport the person directly to a hospital in an emergency such as loss of consciousness or heavy bleeding.



Source: Tokyo Fire Department homepage "Transporting the Injured or Ill"
<https://www.tfd.metro.tokyo.lg.jp/inf/bfc/leader/cp8/index.html>

! Safely Positioning the Injured or Ill



The basic position is laying face up

Place the person in a comfortable position and gently loosen their clothes, belt, and other constricting items.



Vomiting or back injury

Lay the person on their stomach, facing one side. Take care that they do not choke on their vomit.



Head injury or labored breathing

Lay the person on their back and use cushions, etc., to lift their upper body.



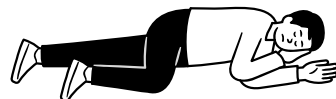
Abdominal pain or injury to the abdomen

Raise the upper body with cushions, etc., and also place a cushion under the knees to bend them.



Labored breathing or chest pain

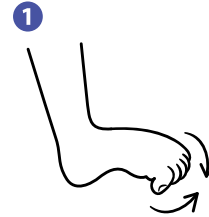
Put the person in a sitting position with their legs extended and place cushions, etc., between their legs and chest to support their upper body.



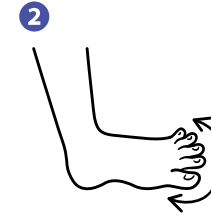
Is breathing but unconscious

To secure an airway, place the person on their side with their top leg bent at a right angle at the knee.

! How to Prevent Economy Class Syndrome



1 Curl your toes.



2 Spread out your toes.



3 Raise your heels up and down and stand on your toes.



4 Stretch your toes up.

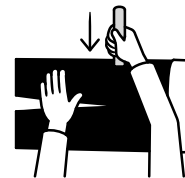


5 Hold your knee with both hands, relax your leg, and rotate your ankle.



6 Lightly massage your calves.

! Treating Anaphylaxis



A severe allergic reaction can occur after coming into contact with or ingesting an allergen such as food or medicine. Lay the person straight and inject an adrenaline autoinjector into their thigh. Inject it perpendicular to the thigh.

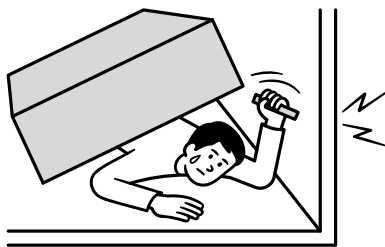
Source: Ministry of Health, Labor and Welfare "How to prevent economy class syndrome"
<https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000170807.html>
"Serious side effect and disease treatment manual"
<https://www.mhlw.go.jp/topics/2006/11/dl/tp1122-1h01.pdf>

! Rescue Methods

How to Call for Help if You Are Trapped

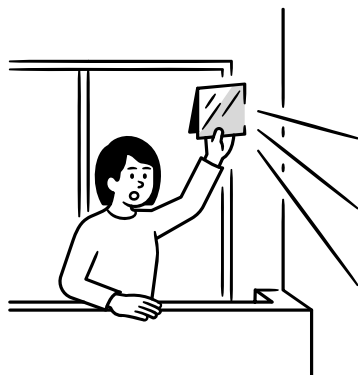
If you cannot move

If you are trapped inside a room or unable to move, don't keep on shouting as this could exhaust you and endanger your life. Instead, make large noises by, for instance, using something solid to hit the door or walls to let others realize that you are in the room.



Stranded on an upper floor

If you are stranded on an upper floor of a condominium or building, don't keep on shouting as you will get tired. Reflect light with a mirror, write your location and SOS on a piece of paper and drop it toward the ground, and make noises. It is also a good idea to practice whistling with your fingers on a regular basis.

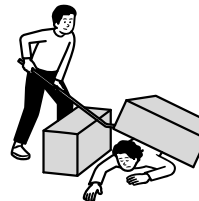


“Crush syndrome” is a condition that occurs when a person’s limb or buttocks are released after being continuously compressed for a long period of time. When the pressure is removed after a long period, an irregular heartbeat may occur and could cause death. It is necessary to seek help as soon as possible to prevent “crush syndrome.” Also, when there is a possibility that “crush syndrome” may occur, it is dangerous to move the person yourself.



How to Use Rescue Goods: (1) Crowbar

A crowbar is a tool that can move heavy objects using leverage. It can be used to rescue people trapped in buildings or cars during a disaster. Rescue equipment such as crowbars and jacks are sometimes stocked in local emergency supplies storerooms.



Removal of debris

Help people who are trapped under furniture, pillars, etc.



Prying open doors

Pry open doors and windows that cannot be opened due to an earthquake to rescue the people who are inside.



Rescue from vehicles

Break a window of a car that has become stuck to rescue the people who are inside.

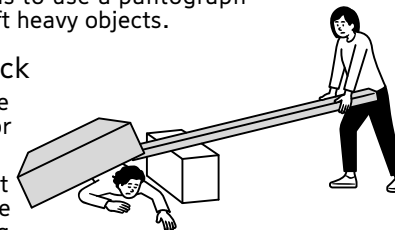
How to Use Rescue Goods: (2) Jack

Another option in an emergency is to use a pantograph jack stored in a passenger car to lift heavy objects.

Precautions when using a jack

If there is no space between the object to be lifted, use a crowbar or other item to create space.

Lift the object only to the height necessary to rescue people, and be careful of the heavy object falling back down.



Use the jack on a strong, flat surface, and place a block of wood or similar in the space opened by the jack to prevent the heavy object from falling back down if the jack moves.

Source: Toyonaka City Fire Department “Disaster Prevention Training Handbook” https://www.city.toyonaka.osaka.jp/krashi/bosai/toyonakafiredept/license/sonota/hyoshi_handbook_files/4-1bar_bosaihandbook.pdf
Kameyama City “Citizens’ Firefighting Training Manual” https://www.city.kameyama.mie.jp/shobo/article/2015031600035/file_contents/rescue.pdf

+ Water and Toilet Measures

How to Carry Water

Items to carry water easily

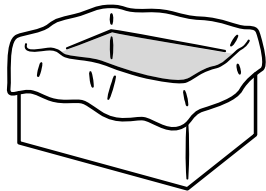
A polyethylene tank or water tank and a carrying cart will be convenient in carrying water from an emergency water supply station. Putting water in plastic bottles and carrying them in backpacks, etc., will also help when walking over rough roads.



Using plastic bags and cardboard boxes

Things to prepare

Cardboard box, plastic bag, adhesive tape

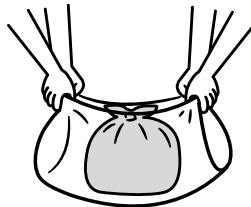


Spread a polyethylene bag inside a cardboard box, and firmly reinforce this by putting cloth adhesive tape on the bottom and sides before use.

Using plastic bags and furoshiki wrapping cloth

Things to prepare

Plastic bag, furoshiki wrapping cloth



Place water in a plastic bag and tie the mouth. Place this in the center of a furoshiki wrapping cloth that has its adjacent corners tied together. If two people each hold one of the knots, the water can be easily carried.



In principle each person must provide their own containers to receive water. It is convenient to have a collapsible water tank.

How to Use the Toilet When Water Supply Is Cut Off

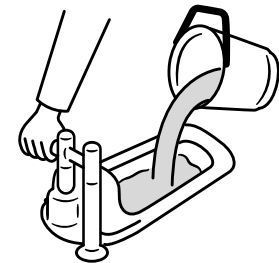
Western toilet

For a western toilet, if the toilet can be flushed even though the water supply is interrupted, you can do this by pouring a bucket of water into the toilet bowl. Don't flush down toilet paper but throw it away as trash.



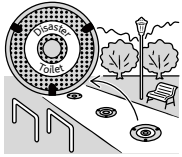
Japanese toilet

For a Japanese toilet, if the toilet can be flushed even though the water supply is interrupted, you can do this by pouring a bucket of water all at once into the toilet bowl while pressing down the flush lever. Don't flush down toilet paper but throw it away as trash.



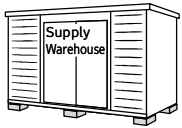
How to Set Up a Manhole Toilet

1



Find a manhole labeled (for example) “Disaster Toilet” at a designated evacuation center or a park that serves as an evacuation area.

2



Retrieve the parts for assembling the manhole toilet from the emergency supplies storeroom.

3



Check that there are no abnormalities in the surrounding ground before opening the manhole cover.

4



Install the partitions and toilet.

5



Use it like a regular toilet and dispose of toilet paper directly into the manhole. Excrement will flow directly into the sewer.

Precautions during installation

- Check the information from the Tokyo Metropolitan and municipal governments regarding locations.
- Not all manholes can be used as toilets.
- Please do not open public septic tanks, private septic tanks, or manholes on roads without permission, as it is extremely dangerous and may result in a fall accident!

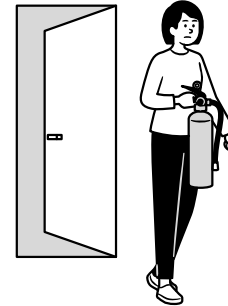
Source: Ministry of Land, Infrastructure, Transport and Tourism “Toilets in Times of Disaster”
<https://www.mlit.go.jp/common/001180224.pdf>



How to Use Firefighting Equipment

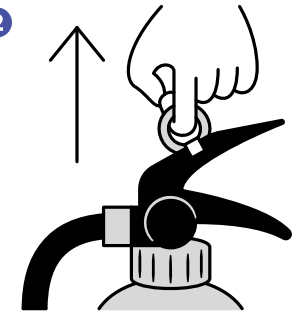
How to Use a Fire Extinguisher

1



First, confirm the source of the fire. Stand so the exit is behind you.

2



Remove the safety pin on the top of the extinguisher.

3



Hold the nozzle and aim it at the flame.

4

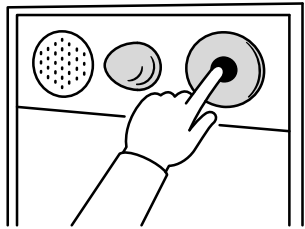


Squeeze the handle and spray the agent directly on the source of fire.

*If the flames reach the ceiling, stop trying to extinguish the fire and evacuate.

How to Use an Indoor Fire Hydrant

1



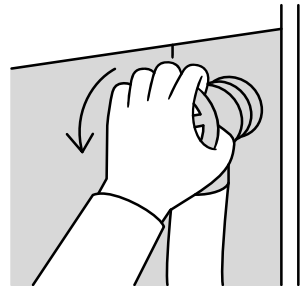
Press the start button. When the red light starts to blink, the pump will begin operating.

2



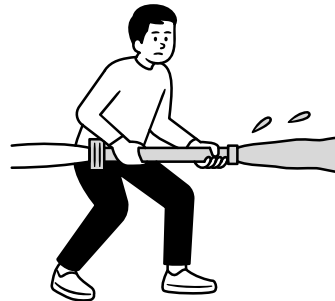
Open the cabinet and extend the hose.

3



Another person opens the valve.

4



Aim the nozzle at the source of the fire and spray water.

*The No. 1 model fire hose is to be manned by more than one person. Here it is assumed that there are two people.

How to Use a Standpipe

1



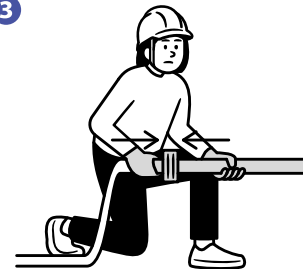
This is effective in places like narrow roads inaccessible by fire trucks. First, insert the key, bend your knees to take a low position, and lift the lid.

2



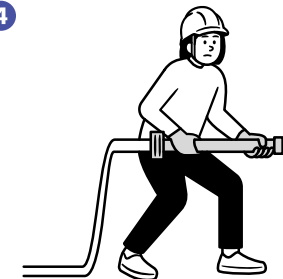
Join the standpipe to the water outlet. Turn the spindle driver, and after confirming that water is flowing, extend the hose joined to the pipe.

3



Join the hose to the nozzle. Insert it firmly until you hear a noise.

4

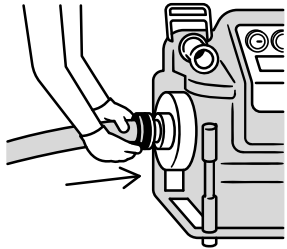


Straighten the hose, and after signaling, spray the water. Point the nozzle at the target, and hold it firmly at the height of your hip.

*This is a fire extinguishing tool that uses the fire hydrant or drain valve in the road. Prior training is required to use it.

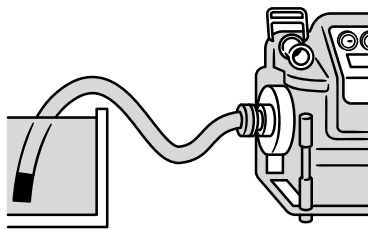
How to Use a Portable Fire Pump

1



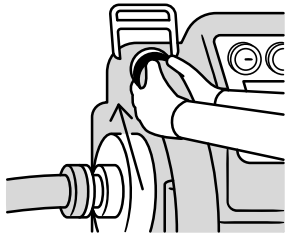
Close the drain cock and water hose outlet valve, and attach the suction pipe to the pump's water inlet.

2



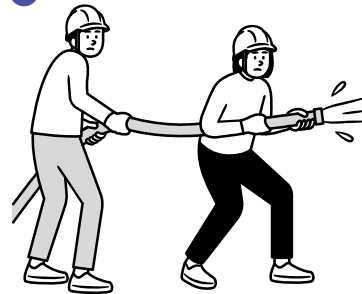
Place the suction pipe in a fire cistern, pool, etc.

3



Start the pump, attach the hose to the outlet, and extend the hose to the source of fire.

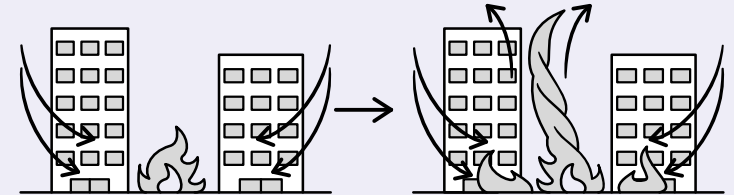
4



Spray water in the direction of the fire source.

*This is a fire pump of a size that can be carried by people. This is to be manned by more than one person. Prior training is required to use it.

Firestorms Can Occur in a Disaster



When a large-scale fire occurs in an urban area, a tornado-like vortex of air called a “whirlwind” can occur, causing great damage. This wind not only can blow people and objects away, but can also cause the rapid spread of the fire due to the ferocious winds, and can even create a tornado-like vortex of flames called a “firestorm”. In the Great Kanto Earthquake of 1923, a firestorm occurred at the site of a factory where many people had evacuated to, resulting in approximately 38,000 deaths. When a fire occurs in an urban area, it is assumed that the strong eddies of wind around high buildings will have a strong influence on the fire, making it more likely that a firestorm will occur.

✚ Maintaining Your Physical and Mental Health

Exercises for Evacuation Life

These are exercises that people living in evacuation centers or temporary housing can do to help maintain or restore their physical and mental capabilities.

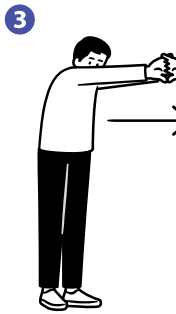
Stretch exercises (3 minutes)



Hands overhead



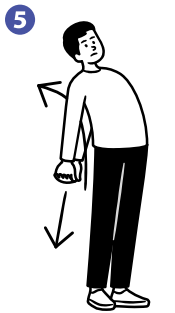
Side extensions (left/right)



Opening shoulder blades



Upper body twist (left/right)



Chest extension



Lower back extension

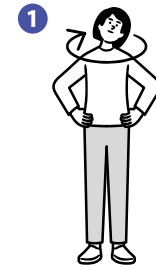


Leg stretch (left/right)



Calf/Achilles tendon (left/right)

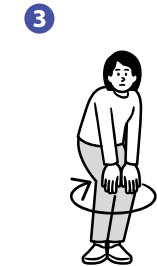
Joint circles and bends/extensions (3 minutes)



Neck circles (right and left, 4 times)



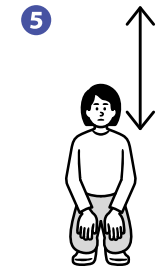
Wrist and ankle circles (right and left, 5 times)



Knee circles (right and left, 10 times)



Hip circles (right and left, 10 times)



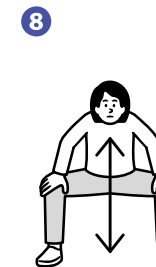
Knee bends (10 or more)



Leg/knee side extensions (left/right)



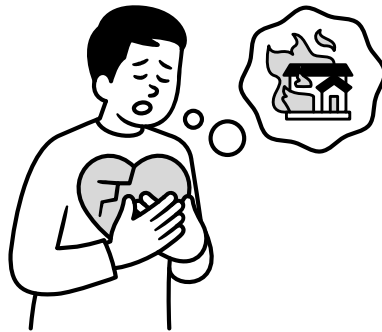
Ground stamp (right and left, 10 times)



Wide squat (10 times)

PTSD (Post-Traumatic Stress Disorder)

PTSD (Post-Traumatic Stress Disorder) is a condition that begins to develop around one month after a disaster occurs. If the symptoms of acute stress disorder (ASD) do not subside, the possibility of PTSD occurring increases.



What is ASD?

After a disaster, a person may feel like they are not themselves, have dissociative symptoms that make them feel like they are in a dream, experience temporary forgetfulness, or become extremely depressed.

A variety of symptoms may appear after a disaster, including insomnia, depression, headaches, and loss of appetite.

Caring for PTSD

For those affected by a disaster

- ⦿ Try to communicate with others.
- ⦿ Understand that anyone can feel anxious and worried, but they will gradually recover.
- ⦿ Even if you can't sleep, simply lying down is still good.
- ⦿ It is important not to try and “cure” painful feelings, but to support each other.
- ⦿ Don't push yourself too hard and consult with someone close to you or a specialist.

If someone around you is experiencing anxiety

- ⦿ Stay close to the person and give them a sense of security.
- ⦿ Look them in the eye and speak slower than usual.
- ⦿ Speak clearly and use short sentences.
- ⦿ Do not force them to talk about painful experiences.
- ⦿ Listen to them if they want to talk about any problems they have.

Pay special attention to children!

- ⦿ Avoid leaving the child alone as much as possible to ensure their safety and give them peace of mind.
- ⦿ Increase the amount of physical contact with the child.
- ⦿ Accept that they may become more childish, dependent, and selfish.

Where to seek help if you're feeling anxious

Tokyo Metropolitan Government Chubu General Mental Health & Welfare Center

2-1-7 Kamikitazawa, Setagaya Ward, 156-0057
Main line: 03-3302-7575; Consultation line:
03-3302-7711
(Minato, Shinjuku, Shinagawa, Meguro, Ota, Setagaya,
Shibuya, Nakano, Sugiyama, and Nerima Wards)



Tokyo Metropolitan Mental Health & Welfare Center

1-1-3 Shitaya, Taito Ward, 110-0004
Main line: 03-3844-2210; Consultation line:
03-3844-2212
(Chiyoda, Chuo, Bunkyo, Taito, Sumida, Koto, Toshima,
Kita, Arakawa, Itabashi, Adachi, Katsushika, and
Edogawa Wards, island areas)



Tokyo Metropolitan Government Tama General Mental Health & Welfare Center

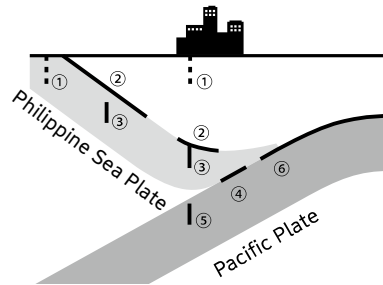
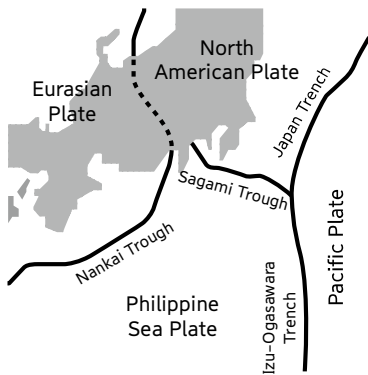
2-1-3 Nakazawa, Tama City, 206-0036
Main line: 042-376-1111; Consultation line:
042-371-5560
(Tama area)



Reference materials:
National Information
Center of Stress and
Disaster Mental Health,
National Center of
Neurology and Psychiatry,
“Psychological first aid:
Guide for field workers”
https://saigai-kokoro.ncn.p.go.jp/images/upload/files/whopfa_jpn.pdf

Disaster Facts and Information You Should Know

i Knowledge of Earthquakes



Locations of earthquakes that occur in the southern Kanto region

- ① Shallow earthquakes within the earth's crust (North American Plate or Philippine Sea Plate)
- ② Earthquakes along the boundary between the Philippine Sea Plate and the North American Plate
- ③ Earthquakes within the Philippine Sea Plate
- ④ Earthquakes along the boundary between the Philippine Sea Plate and the Pacific Plate
- ⑤ Earthquakes within the Pacific Plate
- ⑥ Earthquakes along the boundary between the Philippine Sea Plate, the North American Plate, and the Pacific Plate

Mechanism of earthquakes

Earthquakes occur when slabs of underground rock (plates) slip away or toward each other. Around Japan, oceanic plates subduct below the land plates, and when the land plates can no longer resist this stress and slip, an earthquake occurs at the plate boundary (interplate earthquake). An earthquake that occurs inside the tectonic plate is called an intraplate earthquake.

Active faults

These have been active in the most recent period of geological time (within the last two million years), and are faults that can become the source of future earthquakes.

Seismic intensity and magnitude

Seismic intensity describes the degree of shaking. Seismic intensities announced by the Japan Meteorological Agency are ranked into 10 levels from “0” to “7” (see the table below). Magnitude (M) is an index that describes the energy of the earthquake. Even an earthquake with a small magnitude could have a large seismic intensity in areas near the source.

Seismic intensity	Situation
0	Imperceptible to people.
1	Felt slightly by some people keeping still in buildings.
2	Felt by most people keeping still in buildings.
3	Felt by almost all people inside buildings.
4	Almost all people are startled. Hanging objects such as lights sway significantly. Unstable objects/figurines may fall.
5 Lower	Most people feel the need to hold onto something stable. Things such as dishes or books on shelves may fall. Unsecured furniture may move and unstable objects may topple over.
5 Upper	Walking is difficult without holding onto something stable. More things such as dishes or books on shelves fall. Unreinforced concrete block walls, etc., may collapse.
6 Lower	It is difficult to remain standing. Most unsecured furniture move and more start toppling over. Wall tiles and windows may sustain damage and fall. For wooden houses with low earthquake resistance, roof tiles may fall, and the houses may tilt or collapse.
6 Upper	People need to crawl to move, and may be thrown through the air. Almost all unsecured furniture move and more start toppling over. Large cracks may form in the ground, and large-scale landslips and massive collapse may occur.
7	There are even more cases of wooden houses with low earthquake resistance tilting or collapsing. Even buildings with high earthquake resistance could tilt. More reinforced concrete buildings with low seismic resistance collapse.

Liquefaction

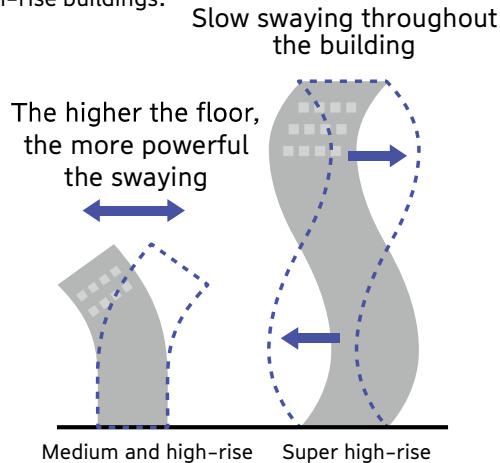
Liquefaction is a phenomenon in which soil behaves like a liquid due to the occurrence of an earthquake. It could cause damage such as the tilting or sinking of houses and other buildings. It could also result in the uplifting of items that have a lower specific gravity than water, such as sewage manholes.

Long-period ground motion

When a large-scale earthquake occurs, a slow, large shaking (ground motion) occurs for a long period. This kind of ground motion is called “long-period ground motion.” Here, “period” means the time it takes for the ground to move back and forth to complete one cycle.

Swaying characteristics of tall buildings

Buildings have what is called a natural period—the rate at which they sway back and forth. When this natural period and the seismic wave period match up, the subsequent resonance will make the building shake significantly. Tall buildings tend to resonate with the seismic waves of long-period ground motion and sway largely for a long period. The higher floors also tend to sway more than the lower floors. Due to these characteristics, the standard for issuing earthquake early warnings is when Grade 3 long-period ground motion or higher is predicted, as damage may occur in high-rise buildings.



Long-period ground motion observation information

Long-period ground motion observation information refers to the information that is announced approximately 10 minutes after an earthquake occurs, in circumstances when Grade 1 long-period ground motion class or higher has been observed, and includes the grade of the long-period ground motion that has been detected at observation points. More information can be found on the Japan Meteorological Agency’s website.



Long-period ground motion observation results

Long-period ground motion levels

Long-period ground motion is ranked according to situations inside tall buildings, such as human perception and reaction, and the movement or toppling over of furniture.

Level	Human perception and reaction	Situation
Grade 1	Almost everyone can feel the shaking. Some are startled.	Blinds and other hanging objects swing significantly.
Grade 2	People feel large shaking and want to hold onto something stable. They have problems moving, such as having difficulty walking without holding onto something.	Furniture and fixtures on casters move slightly. Dishes and books on shelves may fall.
Grade 3	It becomes difficult to remain standing.	Furniture and fixtures on casters move significantly. Unsecured furniture may move, and unstable items may topple over.
Grade 4	People cannot remain standing, have to crawl to move, and are tossed about by the shaking.	Furniture and fixtures on casters move significantly, and some may topple over. Most of the unsecured furniture will move and some will topple over.

Earthquake Early Warnings

Earthquake Early Warning is information on the estimated seismic intensity and arrival time of strong tremors, which is provided as soon as possible after the occurrence of an earthquake. When an Earthquake Early Warning is issued by the Japan Meteorological Agency, notifications are issued through media including television, radio, and the Internet.

Types of Earthquake Early Warnings

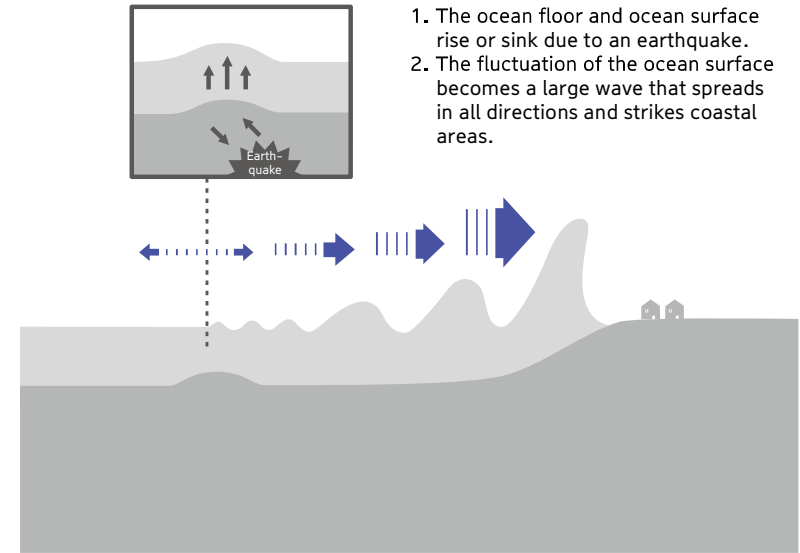
There are two main types of Earthquake Early Warnings: forecasts and alerts. An Earthquake Early Warning forecast is issued when an earthquake with a maximum seismic intensity of at least 3, long-period ground motion of at least Grade 1, or a magnitude of at least 3.5 is expected to occur. An Earthquake Early Warning alert is issued for areas that will have tremors with a seismic intensity of at least 4 or long-period ground motion of at least Grade 3 when an earthquake with a maximum seismic intensity of at least 5 Lower or long-period ground motion of at least Grade 3 is expected to occur. When the maximum seismic intensity is expected to be at least 6 Lower or long-period ground motion of at least Grade 4, the Early Warning alert is positioned as an emergency warning.

Type	Name of Earthquake Warning Issued	Issuance Criteria
Ground motion forecast	Earthquake Early Warning forecast	Maximum seismic intensity 3 or higher, long-period ground motion of Grade 1 or higher, or magnitude 3.5
Ground motion alert	Earthquake Early Warning or Earthquake Early Warning alert	Maximum seismic intensity 5 Lower or higher, long-period ground motion of Grade 3 or higher
Ground motion emergency alert	Earthquake Early Warning alert	Maximum seismic intensity 6 Lower or higher, long-period ground motion of Grade 4 or higher

Mechanism of Earthquake Early Warning system

When an earthquake occurs, the P waves that cause small shaking are followed by the S waves that cause large shaking. After detecting the first P wave by the seismometers, the Earthquake Early Warning is issued to warn people of the approaching S wave. However, in areas close to the epicenter, the Earthquake Early Warning may not be issued in time.

i Knowledge of Tsunami



1. The ocean floor and ocean surface rise or sink due to an earthquake.
2. The fluctuation of the ocean surface becomes a large wave that spreads in all directions and strikes coastal areas.

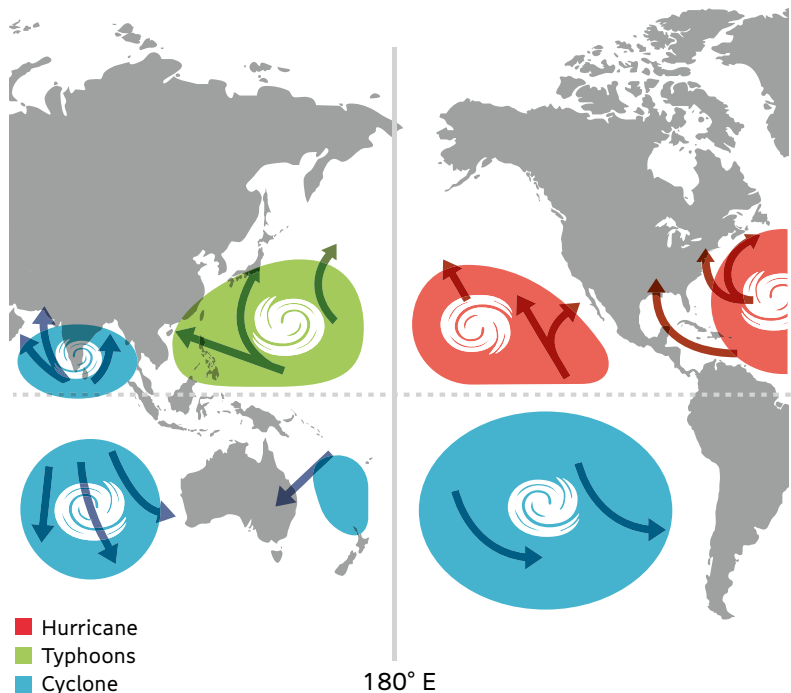
Mechanism of a tsunami

When a large earthquake occurs below the surface of the ocean floor, fault movements make the ocean floor rise or sink. This results in a fluctuation of the ocean surface, which becomes a large wave that spreads in all directions, i.e. a tsunami. The deeper the water depth, the faster the tsunami travels, and the more shallow the water, the higher the tsunami becomes. A tsunami flows powerfully inland at a speed that most people will not be able to outrun. It also recedes very strongly, taking everything that floats out to sea. It is also important to know that multiple tsunamis may hit.



Types of tsunami alerts and warnings
Japan Meteorological Agency homepage

i Knowledge of Climate Change, Typhoon and Heavy Rain



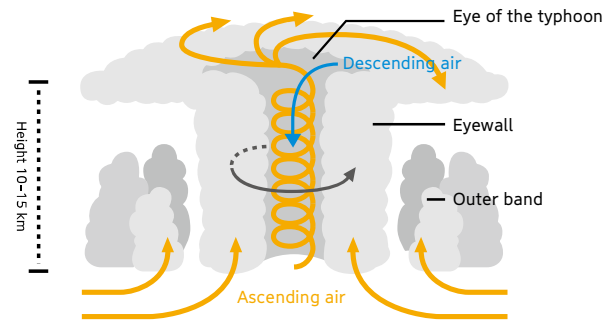
Typhoons and tropical cyclones

Low-pressure systems forming over tropical waters are called tropical cyclones. Of these tropical cyclones, those in the northwestern Pacific or the South China Sea that have a maximum wind speed (10-minute average) of at least 17 m/s are called typhoons. Upper level winds push the typhoon, which is disposed to moving north due to the effect of earth's rotation. Because of this, in low latitudes where east winds normally blow, the typhoon moves north while being steered to the west. When the typhoon reaches the middle and high latitudes where strong west winds (prevailing westerlies) are blowing in the upper level, typhoons move northeast at a high speed.

Typhoon structure

Eye of the typhoon	Air descends, with no clouds, and weakening wind and rain. The eye has a diameter ranging from around 20 to 200 km.
Eyewall	The eye of the typhoon is surrounded by the eyewall, a ring of dense cumulonimbus clouds. This is where the strongest wind and rain of the storm occurs.
Spiral band	A somewhat thick spiral band (inner rainband) around the eyewall, which produce strong and continuous rainfall.
Outer band	Outer rainbands around the spiral band, forming about 200 to 600 km from the center of the typhoon, which intermittently produce strong rain, thunderstorms, and at times, tornadoes.
Above the clouds	Air is released clockwise.

Cross section of a typhoon



Typhoon and heavy rain warnings

Heavy rain warning	Issued when there is the risk that heavy rain will cause serious flooding or sediment disasters. The warning continues to be issued even after the rain has stopped if there is still the risk of serious sediment disasters, etc.
Storm warning	Issued when there is the risk of serious disasters occurring from violent winds.
Flood warning	Issued when there is the risk of serious disasters such as rising levels and flooding of rivers, and damage to or collapse of levees, due to heavy rain, long rain, snowmelt, etc.
High wave warning	Issued when there is the risk of serious disasters occurring due to high waves. High waves are completely different from tsunamis occurring from earthquakes.
Storm surge warning	Issued when there is the risk of serious disasters occurring through the abnormal rise of the ocean surface due to typhoons, low pressure systems, etc.



Information regarding disaster prevention weather information and alert levels
Japan Meteorological Agency homepage

Typhoon and heavy rain emergency warnings

Heavy rain emergency warning	Issued when heavy rainfall of an intensity observed only once every few decades is forecasted due to typhoons or torrential rain. When a heavy rain emergency warning is issued, it is expected that there is an extremely large risk of serious damage such as inundation and sediment disaster occurring. The emergency warning continues to be issued even after the rain has stopped when there is still a significantly large risk of serious sediment disaster, etc. occurring.
Storm emergency warning	Issued when it is forecasted that a powerful typhoon with a level of intensity observed only once every few decades or an extratropical cyclone of comparable intensity will produce violent winds.
High wave emergency warning	Issued when it is forecasted that a powerful typhoon with a level of intensity observed only once every few decades or an extratropical cyclone of comparable intensity will produce high waves. High waves are completely different from tsunamis occurring from earthquakes.
Storm surge emergency warning	Issued when it is forecasted that a powerful typhoon with a level of intensity observed only once every few decades or an extratropical cyclone of comparable intensity will result in storm surge.

Other typhoon and heavy rain bulletins and forecasts

Record-time heavy rain information	If short-term heavy rain that only occurs once every few years is observed or analyzed during a heavy rain warning, and if the "Danger" (purple) level has appeared on the KIKIKURU (danger level distribution) map, the Japan Meteorological Agency will make an announcement.
Sediment-disaster alert bulletin	If the conditions are such that a life-threatening sediment disaster could occur at any time after a heavy rain warning (sediment disaster) has been announced, the municipalities at risk will be identified and jointly announced by the prefectural government and the Japan Meteorological Agency. Locations at risk of sediment disasters, warning and evacuation districts, and emergency warning districts can be confirmed on the Tokyo Metropolitan Government's Sediment Disaster Risk Map.

Source: Japan Meteorological Agency "Types of weather warnings and advisories" from the Japan Meteorological Agency website

i Various Weather Information

Heavy snow warning, emergency warning

Heavy snow warning	Issued when there is the risk of serious disasters occurring due to heavy snow.
Heavy snow emergency warning	Issued when heavy snow with a level of intensity observed only once every few decades is forecasted.

Snowstorm warning, emergency warning

Snowstorm warning	Issued when there is the risk of serious disasters occurring from gales accompanying snow. In addition to serious disasters occurring from violent winds, warnings are also given about the risk of serious disasters resulting from reduced visibility due to snow.
Snowstorm emergency warning	Issued when it is forecasted that a powerful typhoon with a level of intensity observed only once every few decades or a extratropical cyclone of comparable intensity will produce violent winds accompanying snow. In addition to serious disasters occurring from violent winds, warnings are also given about the extremely high risk of serious disasters resulting from reduced visibility due to snow.



Information regarding disaster prevention
weather information and alert levels
Japan Meteorological Agency homepage

Source: Japan Meteorological Agency "Types of weather warnings and advisories" from the Japan Meteorological Agency website

i Large-Scale Disasters in the Past

Earthquakes since the Great Kanto Earthquake that wrought enormous damage

Year	Scale	Disaster name	Damage
1923	M7.9	Great Kanto Earthquake	Deaths/missing: Over 105,000
1927	M7.3	Kita Tango Earthquake	Deaths: 2,925
1943	M7.2	Tottori Earthquake	Deaths: 1,083
1944	M7.9	Tonankai Earthquake	Deaths/missing: 1,223
1945	M6.8	Mikawa earthquake	Deaths: 2,306
1946	M8.0	Nankai Earthquake	Deaths: 1,330
1948	M7.1	Fukui Earthquake	Deaths: 3,769
1995	M7.3	Great Hanshin-Awaji Earthquake	Deaths: 6,434
2011	M9.0	Great East Japan Earthquake	Deaths: 19,747 Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications, 2021 Firefighting White Paper

*Earthquakes that caused more than 1,000 deaths

Major volcanic eruptions that had an impact on Tokyo

Year	Disaster name	Damage etc.
1707	Hoei-Eruption of Mount Fuji	Large quantities of volcanic ash
1902	Izu-Torishima Eruption	Deaths: 125
1940	Miyakejima Eruption	Deaths: 11
1983	Miyakejima Eruption	Damage from lava flow, etc.
1986	Izu-Oshima Eruption	All residents evacuated from the island
2000	Miyakejima Eruption	All residents evacuated from the island

Recent major storm and flood damage that had an impact on Tokyo

Date	Disaster name	Main damage	Laws that applied
October 15, 2013	Typhoon Wipha	Deaths: 37 Missing: 3 Serious injuries: 10 Minor injuries: 15 Houses totally destroyed: 52 Houses partially destroyed: 27 Houses destroyed to some degree: 183 Inundation above floor level: 58 Inundation below floor level: 103	Disaster Relief Act
February 8, 2014	Heavy snow and rain	Serious injuries: 5 Minor injuries: 61 Houses destroyed to some degree: 5	
February 14, 2014	Heavy snow and rain	Serious injuries: 6 Minor injuries: 50 Houses partially destroyed: 1 Houses destroyed to some degree: 332	
September 8, 2015	Kanto/Tohoku heavy rain	Minor injuries: 1 Houses partially destroyed: 1 Inundation above floor level: 8 Inundation below floor level: 14	
August 21–22, 2016	Typhoon Mindulle	Minor injuries: 2 Houses partially destroyed: 1 Houses destroyed to some degree: 9 Inundation above floor level: 178 Inundation below floor level: 228	
October 22, 2017	Typhoon Lan	Minor injuries: 1 Houses partially destroyed: 20 Inundation above floor level: 18 Inundation below floor level: 26	
September 8, 2019	Typhoon Faxai	Deaths: 1 Minor injuries: 6 Houses totally destroyed: 14 Houses partially destroyed: 73 Houses destroyed to some degree: 1,743 Inundation above floor level: 24 Inundation below floor level: 13	Disaster Relief Act
October 12, 2019	Typhoon Hagibis	Deaths: 3 Minor injuries: 10 Houses totally destroyed: 36 Houses partially destroyed: 667 Houses destroyed to some degree: 1,204 Inundation above floor level: 320 Inundation below floor level: 531	Disaster Relief Act Establishment of disaster response headquarters
October 25, 2019	Typhoon Bualoi	Serious injuries: 1 Houses totally destroyed: 1 Houses partially destroyed: 2 Houses destroyed to some degree: 21	
October 8–11, 2020	Typhoon Chan-hom and storm front	Houses destroyed to some degree: 5	Disaster Relief Act
August 8, 2021	Typhoon Mirinae	Minor injuries: 2 Houses destroyed to some degree: 2	



1923
1923 Great Kanto Earthquake
(from the archives of the Tokyo Metropolitan Government Memorial Hall of Reconstruction)



2000
Miyakejima Eruption



2011
Great East Japan Earthquake



2013
Typhoon Wipha sediment disaster on Izu Oshima Island



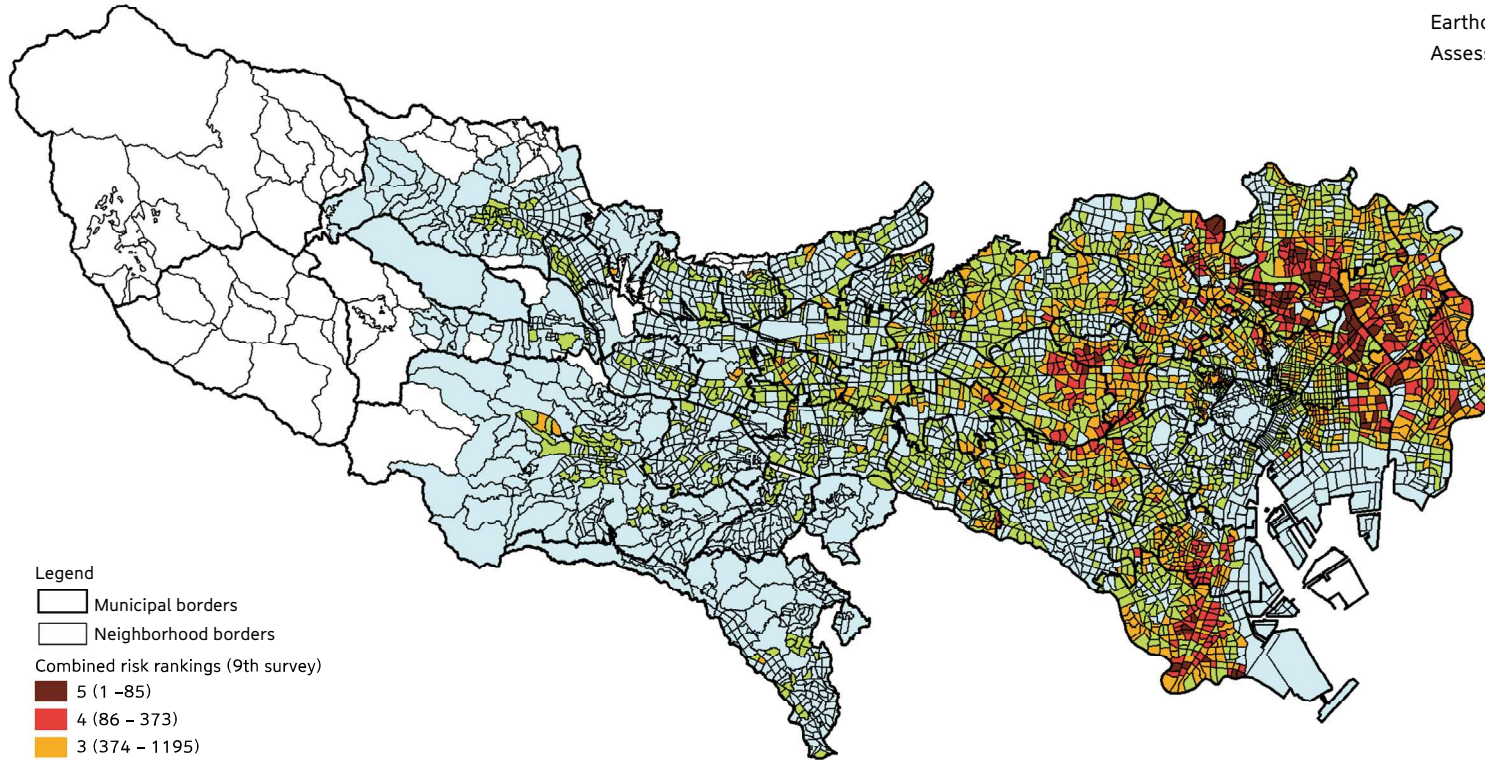
Community Earthquake Risk Assessment Survey

Combined risk ratings were determined by aggregating a community's building collapse risk ranking and fire risk ranking, and then ranking this sum. Communities with high combined risk need to develop measures tailored to the characteristics of each area. The "combined risk in light of emergency response difficulty" rating takes into account the difficulty of emergency response such as evacuation and fire/rescue activities

Combined Risk Ratings

in addition to overall combined risk. This data assesses the status of the development of roads that will serve important roles when a disaster strikes such as community roads and city-planned roads. More detailed information about combined risk ratings published by the Tokyo Metropolitan Government is available from the Bureau of Urban Development by scanning the QR code below.

Community Earthquake Risk Assessment Survey



Legend

- Municipal borders
- Neighborhood borders

Combined risk rankings (9th survey)

- 5 (1 -85)
- 4 (86 - 373)
- 3 (374 - 1195)
- 2 (1196 - 2848)
- 1 (2849 - 5192)



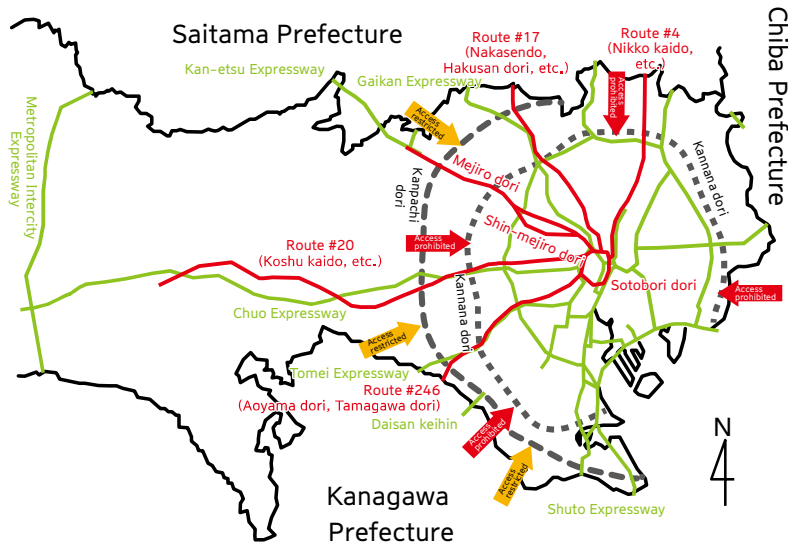
*White areas indicate areas not subject to assessment.

(Tokyo Metropolitan Government Bureau of Urban Development, September 2022)

i Traffic Restrictions Following

Directly following a major earthquake, traffic restrictions (stage 1 restrictions) will be implemented in order to prevent danger on roads, as well as to ensure the smooth passage of emergency vehicles engaged in activities such as rescue and firefighting, based on the Road Traffic Act (Act No. 105 of 1960). Emergency access roads are then secured (stage 2 restrictions) to ensure that emergency response can be carried out

Stage 1 restrictions



Legend	
Kannana dori	■■■■■
Kanpachi dori	●●●●●
Routes for Authorized Emergency Vehicles	<p>Route #4, Route #17 (Hakusan dori, etc.), Route #20, Route #246, Mejiro dori/ Shin-mejiro dori, Sotobori dori</p> <p>Expressway national highways, Shuto Expressway, etc.</p>

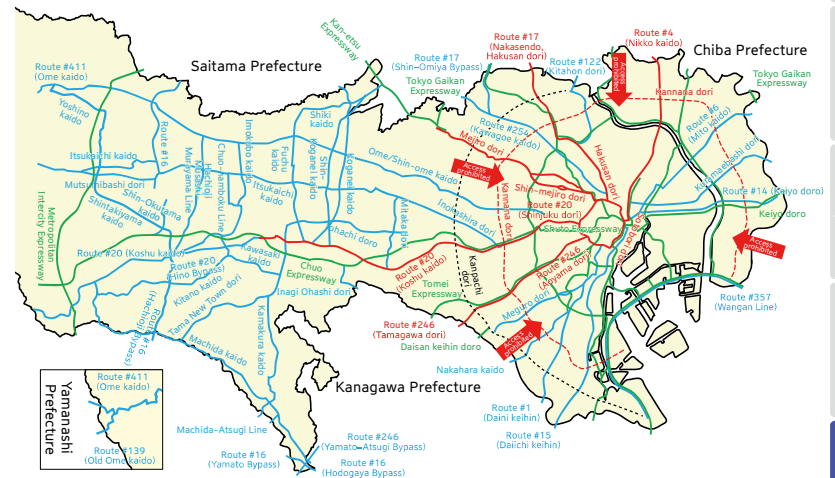
a Major Earthquake

accurately and smoothly based on the Disaster Countermeasures Basic Act (Act No. 223 of 1961). Furthermore, if an earthquake measuring a 5 Upper occurs, even though it does not qualify as a massive earthquake, traffic restrictions may be put into place based on the Road Traffic Act.

Metropolitan Police Department, Traffic Restrictions Following a Major Earthquake



Stage 2 restrictions



- Regular roads designated as Routes for Authorized Emergency Vehicles
- Expressways designated as Routes for Authorized Emergency Vehicles
- Key road routes to be designated, if necessary, as Emergency Access Roads

"Routes for Authorized Emergency Vehicles" are given priority designation as "Emergency Access Roads" and vehicles are prohibited from entering.
*Only vehicles engaged in disaster response measures are allowed access.

Designated routes may be changed depending on the damage and traffic conditions.

i Support Systems

Rebuild your life using support systems

There are various systems in place to help you rebuild your life when you have incurred damage from a natural disaster such as an earthquake. Some of the systems may require that you present a damage certificate (risai shomeisho), which certifies the degree of damage to your home or office, etc., caused by the earthquake, etc. File for this certificate at your municipality. Following this, you can apply for various systems that can help you rebuild your life. In addition, if you were insured for earthquakes, etc., you can receive insurance money.

Death of a parent or child, etc.	➔	Disaster Sympathy Money
Disability from injury or disease	➔	Disaster disability compensation money
Need money for the time being to live and to rebuild life	➔	Support fund for disaster victims to rebuild their lives
	➔	Disaster Relief Fund
Wish to get a tax reduction or exemption	➔	Income tax casualty loss deduction
	➔	Income tax disaster exemption
Wish to rebuild your house	➔	Disaster reconstruction housing loan
Wish to resume work	➔	Public vocational training
	➔	Job seeker support training
	➔	Vocational training allowance
Wish to continue studies	➔	Scholarship loan or grant from the Japan Student Services Organization
Wish to resume school	➔	Education loan under the Government's disaster special measures
Wish to rebuild my business	➔	Disaster reconstruction loan
	➔	Loan system for SMEs and agricultural, forestry, and fisheries businesses

Damage certificate

A damage certificate is issued by the head of the municipality to certify the degree of damage to a person's residence due to disasters such as earthquakes, wind and floods. It will be necessary to use this certificate to receive benefits, loans, disaster relief money, extension and/or reduction/exemption of payment of taxes, national health insurance, etc., reduction/exemption of fees for public services, to file for insurance benefits, and apply for residence in emergency temporary housing.

*The criteria for the issuance of a damage certificate are unrelated to the results of the emergency risk assessment (page 116).

Criteria for the damage certificate

The damage certificate is widely used as material to determine eligibility for various disaster victim support measures. It is classified according to the degree of damage to the dwelling (owned housing, rented housing) determined by a municipal official, as shown in the table. For details, inquire at your local municipality office.

Degree of damage	Percentage destroyed
Total destruction	50% or more
Significant partial destruction	40% to under 50%
Moderate partial destruction	30% to under 40%
Partial destruction	20% to under 30%
Quasi-partially destroyed	10% to under 20%
Not quasi-partially destroyed (partial damage)	Less than 10%

Flow of damage certificate process

- 1 Take photos of the damage to your house
- 2 Apply to your local municipality office
- 3 Receive an on-site investigation of the damage
- 4 Damage certificate is issued

*In addition to the damage certificate, there is also a "disaster victim certificate." This applies to buildings other than residences (stores, factories, gates, etc.), so be sure to apply for the correct one.

Disaster sympathy money

The families of those who lost their lives or are missing due to the disaster can receive sympathy money. For details, inquire at your local municipality office.

Recipient	<ul style="list-style-type: none">▫ Family of the deceased (1. Spouse, 2. Child, 3. Parent, 4. Grandchild, 5. Grandparent)▫ When there are none of the above family members, a sibling of the deceased (Lived with the deceased at the time of death, or lived under the same household budget)
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Disaster disability compensation money

Those who became severely disabled due to the disaster can receive disaster disability compensation money, depending on the degree of disability. For details, inquire at your local municipality office.

Recipient	<ul style="list-style-type: none">▫ Those who have been blinded in both eyes▫ Those who have lost the ability to chew and speak▫ Those who are left with serious impairment in their nervous system function or in the psyche and require continuous nursing care▫ Those who are left with serious impairment in the functions of the thorax and abdominal organs and require continuous nursing care▫ Those who have lost both upper limbs above the elbow joint▫ Those who have completely lost the use of both upper limbs▫ Those who have lost both lower limbs above the knee joint▫ Those who have completely lost the use of both lower limbs▫ Those with multiple physical or mental impairments that are equivalent to the above
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Support fund for disaster victims to rebuild their lives

A support fund will be provided to households that suffered significant damage to their livelihoods through the disaster, depending upon the degree of damage suffered, such as total destruction of their residence. For details, inquire at your local municipality office.

Disaster relief fund

Those who have suffered injury or damage to their residence or property are eligible to borrow funds for disaster relief. However, income limits apply. For details, inquire at your local municipality office.

Income tax casualty loss deduction

When a disaster results in damages to your property such as housing and household possessions, which are needed for daily life, you can deduct a certain amount (casualty loss deduction) from income when filing your tax returns.

Income tax disaster exemption

When your income in the year of the disaster does not exceed 10 million yen, and damages to your home or household possessions (excluding amounts that were covered by insurance) were 50% or more of the current value, and if the income tax casualty loss deduction does not apply to such loss, you can receive an income tax exemption/reduction under the Disaster Exemption Act.

Other reductions/exemptions from taxes, etc.

The more beneficial out of the casualty loss deduction or disaster exemption may be chosen. Inquire at your local tax office regarding procedures for applying and calculation methods.

Tax office	→	▫ Inheritance tax, gift tax, etc.
Nearby municipal office	→	▫ Inhabitant tax, fixed asset tax*, etc.
	→	▫ National health insurance / long-term care insurance premiums
Metropolitan Tax Office	→	▫ Business tax on individuals
Japan Pension Service	→	▫ National pension
Relevant utility service or office	→	▫ Electricity, gas, water supply and sewerage, telephone bills, NHK reception fees, etc.

*For fixed asset tax within the 23 wards, contact the Metropolitan Tax Office in the ward where the house is located.

Disaster reconstruction housing loan

Those who own or reside in dwellings that were damaged by the disaster can receive a disaster reconstruction housing loan to rebuild their homes. The residence must meet the criteria set by the Japan Housing Finance Agency to be eligible for this loan. For details, inquire at the Japan Housing Finance Agency, which provides the loan.

Implementing organization	Japan Housing Finance Agency
Eligible borrowers	People who have been issued a damage certificate stating that their house suffered “total destruction,” “significant partial destruction,” “moderate partial destruction,” or “partial destruction” due to a disaster are eligible if they meet certain conditions.

(as of July 2023)

Emergency temporary housing

Emergency temporary housing is for people who have lost a place to live because their home was total destroyed (collapsing, burning, swept away) in a disaster, and who do not have the financial means to secure housing on their own. Depending upon the situation, the Tokyo Metropolitan Government plans to promptly and appropriately provide disaster survivors with emergency temporary housing by using public housing such as metropolitan housing, renting private housing, and constructing temporary housing.

Emergency repairs for damaged homes

Under this system, in cases where a house has suffered partial destruction, partial destruction by fire, or damage to an extent that is equivalent to partial destruction due to a disaster, and it is not possible to carry out emergency repairs with your own financial resources, or if the house cannot be lived in without extensive repairs, the Tokyo Metropolitan Government and municipal government will cooperate to carry out the minimum necessary repairs within a certain financial limit. This applies to all owner-occupied homes, including detached houses and condominiums, but please note that in principle, people who enter into emergency temporary housing will not be able to use the system.

*For details, inquire at the local municipality office you lived in at the time of the disaster.

Earthquake insurance (natural disaster mutual aid)

Earthquake insurance is insurance which provides compensation for damage to property by fire, destruction, immersion or being swept away, caused by an earthquake or volcanic eruption or a subsequent tsunami. Damage from liquefaction caused by earthquakes is also covered.

*For information on purchasing earthquake insurance, refer to “How to purchase earthquake insurance” below.

Fire insurance

Fires are especially likely to occur as a secondary disaster after a large earthquake, so check the coverage for natural disasters and purchase the most suitable plan.

Home contents insurance

This insurance covers moveable items inside your home, such as furniture and appliances. Purchasing this insurance is recommended in case your property is damaged in a disaster.

How to purchase earthquake insurance

Having fire insurance is required in order to purchase earthquake insurance. The scope of coverage varies depending on the type of residence, such as condominium, rental apartment, or detached house. Check the conditions carefully before purchasing.

Receiving earthquake insurance

Insurance will be paid according to the degree of damage to the building or household possessions. Even if you do not have the insurance papers with you due to fire or tsunami, as long as you can prove who you are, you can take the procedures to receive insurance.

Support for daily life

Resuming work

Those who have lost work can look for a job at Hello Work (the national government’s employment service center) or receive support such as vocational training. Please inquire with Hello Work for details.

Public vocational training	Recipient	Those receiving unemployment benefits.
Job seeker support training	Recipient	Those who cannot receive unemployment benefits because they were self-employed or were not participating in the employment insurance program, etc.
Vocational training allowance	Recipient	Those who cannot receive unemployment benefits and who are instructed by Hello Work to receive training, and fulfill certain conditions.

Continuing studies, returning to school

Those with drastic changes in household finances can receive emergency scholarships to help cover matters such as school tuition. Applications for scholarships and JASSO disaster relief funds can also be submitted to the Japan Student Services Organization. For details, please inquire with the Japan Student Services Organization.

In addition, if your home was damaged by the disaster, preferential treatment in relation to applications and loan interest rates is available for the National Education Loan handled by the Japan Finance Corporation. For details, please inquire with the Japan Finance Corporation.

Disaster reconstruction loan

This is a disaster reconstruction loan to support small and medium-sized companies that were affected by the disaster in rebuilding their business. The repayment period is longer than regular loans, and it also has benefits such as a long grace period. For details, please inquire with the Japan Finance Corporation or Shoko Chukin Bank.

Eligibility	<ul style="list-style-type: none"> ▫ Small and medium-sized business operators who suffered damage due to a designated disaster
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Loan system for SMEs and agricultural, forestry, and fishery businesses

The Shoko Chukin Bank provides loans to small and medium-size companies that have suffered damage, and Credit Guarantee Corporations serve as guarantors for loans from financial institutions. The Japan Finance Corporation also loans operating funds and management funds to agricultural, forestry, and fisheries operators who suffered damages. Business funds are also loaned at low interest rates to agricultural cooperatives and other cooperatives.

Main loan systems	<ul style="list-style-type: none"> ▫ Credit guarantee corporations around Japan provide credit guarantee to SMEs ▫ Support by the Japan Finance Corporation for agricultural, forestry, and fishery businesses ▫ Natural calamity loan system for agricultural, forestry, and fisheries businesses provided by the local municipality
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Inquiries About Disaster Preparedness

Type	Office in charge	Telephone
Disaster preparedness (general inquiries)	Management Section, Disaster Prevention Division, Bureau of General Affairs, Tokyo Metropolitan Government S0000040@section.metro.tokyo.jp	03-5388-2453
River-related floods	Disaster Prevention Section, Rivers Division, Bureau of Construction, Tokyo Metropolitan Government S0000386@section.metro.tokyo.jp	03-5320-5164
Community risk ratings (Bureau of Urban Development)	Disaster Management Section, Urban Development Projects Division, Bureau of Urban Development, Tokyo Metropolitan Government S0000357@section.metro.tokyo.jp	03-5320-5142
Subsidies for seismic evaluation of buildings, seismic retrofitting and reinforcement (Bureau of Urban Development)	Building Planning Section, Urban Buildings Division, Bureau of Urban Development, Tokyo Metropolitan Government	03-5388-3362
Subsidies for seismic evaluation of condominium buildings, seismic retrofitting and reinforcement (Office for Housing Policy)	Condominiums Section, Private Housing Division, Office for Housing Policy, Tokyo Metropolitan Government S1090503@section.metro.tokyo.jp	03-5320-4944
Tokyo Todomaru Condominiums	Condominiums Section, Private Housing Division, Office for Housing Policy, Tokyo Metropolitan Government S1090503@section.metro.tokyo.jp	03-5320-5007
Water supply (Bureau of Waterworks)	Customer Service Center, Bureau of Waterworks	Navi dial: 0570-091-100 Landline phone number: 03-5326-1101 or 042-548-5110
Police	Natural Disaster and Accident Rescue Division, Tokyo Metropolitan Police Department	03-3581-4321
Fire department	Tokyo Fire Department: tfdinfo@tfd.metro.tokyo.jp * Cannot be used for emergency calls such as to call 119. * Emails are limited to text format. (Please do not attach any attachments)	03-3212-2111
	Inagi City Fire Department Headquarters	042-377-7119
	Oshima Town Fire Department Headquarters	04992-2-0119
	Miyake Village Fire Department Headquarters	04994-6-0119
	Hachijo Town Fire Department Headquarters	04996-2-0119
Volunteering	Tokyo Volunteer and Citizens Activity Center https://www.tvac.or.jp/toiwase.html	03-3235-1171

*Residents of Musashino City, Akishima City, Hamura City, Hinohara Village, and the islands should contact the municipality where you live with questions in regard to water supply.

*Please direct inquiries related to electric, gas, or telephone service to your service provider.

i Pictograms Legend



Quoted from JIS Z8210, 2022

Evacuation Center

A place to live for a certain period of time if your home is damaged and is difficult to live in. These are schools, community centers, etc.



Quoted from JIS Z8210, 2022

Evacuation Area

A place for emergency evacuation to protect your life from approaching dangers such as earthquakes, fires, and tsunami immediately after a disaster. They include large parks, plazas, university campuses, and school grounds.

Temporary Evacuation Area

Places where evacuees gather temporarily to grasp the situation prior to moving to an evacuation area. These are school yards, neighborhood parks, and other places with enough space to secure the safety of the people gathered there. The same pictogram as for evacuation areas may be used, or depending on the region, unique signs may be posted.

Temporary Shelter

A facility where people who are unable to return home following a disaster can temporarily stay. Approximately 1,200 facilities, including public and private, have been designated.



Support Stations for those attempting to return home during a disaster

Facilities (convenience stores, fast food shops, casual restaurants, gas stations, and other establishments) that will support people who have become stranded following a disaster and are attempting to return home on foot. Support stations will provide road information, drinking water, toilet facilities, a place to rest, and other assistance.



Quoted from JIS Z8210, 2022

Tsunami Evacuation Area

This sign indicates a safe location or elevated ground where people can evacuate to when a tsunami occurs.



Quoted from JIS Z8210, 2022

Tsunami Evacuation Building

This sign indicates a reinforced concrete building that has at least three floors where people can evacuate to if there is no elevated ground nearby when a tsunami occurs.



Emergency Water Supply Station

Water will be distributed at emergency water supply stations when the water supply has been cut. Emergency water supply stations include facilities that store water under locations such as water supply facilities and parks, and where faucets are connected to fire hydrants near evacuation centers.

i Symbols for People Who Need Special Care in an Emergency



Help Mark

A mark used by people with conditions that are not outwardly apparent, such as a prosthetic limb or joint, internal medical condition, intractable disease, or the early stages of pregnancy. The mark is displayed to inform those around them of their need for special consideration.



Help Card

A card created to help those with disabilities or other conditions inform the people around them about their disability or condition when an emergency or disaster occurs. Information such as emergency contact numbers and details on the type of support they require is printed on the card. Please contact your local government if you require one.



International Symbol of Access

This symbol is the universal symbol that indicates a building, form of public transportation, etc., is accessible to people with disabilities. This symbol is not for wheelchair users only, but for all people with disabilities.



International Symbol of Access for Individuals Who Are Blind

Designated as the universal symbol by the World Blind Federation in 1984, this symbol is displayed on buildings, facilities, equipment, and other objects developed with special consideration for the safety and accessibility of the visually impaired. The symbol is used on crosswalk signals, voice guidance devices, international mail containing materials in braille, books, printed materials, etc.



Mark for the Hearing Impaired

This mark indicates that the holder has a hearing impairment and is used in situations such as when requesting consideration with regard to how to communicate. It is also used at institutions such as local governments, hospitals, and banks to indicate that assistance is provided to people with hearing impairments.



Mark for Expectant Mothers

This mark is worn by expectant mothers when they go out to make it easier for people around them to show consideration.



Mark for Assistance Dogs

This mark is to raise awareness of the Act on Assistance Dogs for Physically Disabled Persons. Facilities used by a large number of people, such as department stores and restaurants, are required to accept assistance dogs (guide dogs, assistance dogs, hearing dogs).



Ostomate Mark

This symbol, representing an ostomate (someone who has an ostomy or an artificial bladder), is displayed to indicate that a facility has toilet facilities for ostomates, etc.



Heart Plus Mark

This mark is used to represent people with internal conditions that are not readily apparent to others such as those associated with the heart, respiratory functions, kidneys, bladder, rectum, small intestine, liver, and immune system.

i Index of Glossary Terms

Weather radar 59

A system that uses a rotating antenna to emit radio waves (microwaves) to observe rain and snow over a wide area with a radius of several hundred kilometers.

Temporary shelter 11, 120, 121, 122, 123, 264

A facility that temporarily accommodates people who have trouble returning home due to a disaster.

Temporary evacuation area 110, 111, 113, 193, 264

An area to which you evacuate temporarily when evacuation orders are given, or when the danger of fire approaches. Temporary evacuation areas include local elementary schools, junior high schools, and parks.

First aid station 201, 202, 203, 219

A place established by a municipality in the event of a disaster based on a local disaster prevention plan to carry out first aid and other medical relief activities. They are mainly classified into emergency first aid stations, which are established near disaster key hospitals, and evacuation first aid stations, which are established in evacuation centers.

AED (automated external defibrillator) 209, 210, 211, 212

A device that gives an electric shock to a person in cardiopulmonary arrest to restore the heart's ability to pump blood. Installed at public places such as railway stations and schools.

Firestorm 11, 231

A phenomenon in which a tornado-like vortex of air, called a whirlwind, which is caused by a large-scale fire turns into a vortex containing flames.

Emergency toilet 42

A toilet that can be assembled using material such as cardboard as a toilet seat. It is usually used together with a bag and coagulant for a portable toilet.

Earthquake-tripped circuit breaker 80, 82, 83

A device that prevents fires from breaking out in electrical equipment due to the shaking of an earthquake and fires that can occur when power is restored after an outage. It detects strong shaking from an earthquake and automatically cuts off the electricity.

Stranded commuters and others 8, 11, 120, 123, 265

People who become stranded due to an earthquake or other natural disaster that occurs when they are at a place other than their home.

Emergency safety measures 156

Action to be taken when a local government issues a Level 5 alert based on disaster prevention information released by the Japan Meteorological Agency. By the time the order is issued, there is an extremely high possibility that some kind of disaster has already occurred, and all residents should immediately ensure their personal safety as their lives are in danger.

Earthquake Early Warning 108, 238, 240

Information on the estimated seismic intensity and arrival time of strong tremors or long-period ground motion, which is provided as soon as possible after the occurrence of an earthquake.

Portable toilet

12, 37, 39, 40, 41, 42, 43,
69, 70, 71, 73, 94, 121, 191

A portable toilet that can be attached to a toilet bowl or used as is if there is no toilet seat.

Evacuation of the elderly, etc.

156, 174, 175, 193

Action to be taken when a local government issues a Level 3 alert based on disaster prevention information released by the Japan Meteorological Agency. When the order is issued, it is necessary to evacuate the elderly, people with disabilities, young children, and their support people from dangerous areas.

Individual evacuation plan

192, 194

A plan that describes in advance information including who will provide support for people who require assistance to evacuate, such as the elderly and people with disabilities, and where they will be evacuated to. The plan is prepared by the municipality in principle.

Support Stations for those attempting to return home during a disaster

265

Facilities (convenience stores, fast food shops, casual restaurants, gas stations, and other establishments) that will support people who have become stranded following a disaster and are attempting to return home on foot. They provide road information, drinking water, toilet facilities, a place to rest, and other assistance.

Emergency water supply station

91, 224, 265

A place where water is distributed when water supply has been cut due to a disaster.

Shelter at home

12, 33, 34, 66, 69, 70, 112, 118, 135

Staying at home, as opposed to going to an evacuation center, when the building where you live was not damaged by the disaster and there is no danger of tsunami or fire.

J-Alert

180, 181

The National Early Warning System, through which the national government transmits information about situations where there is little time to respond, such as ballistic missile information, earthquake early warnings, and major tsunami warnings, through emergency alert emails sent to mobile phones and wireless emergency alert systems.

Earthquake directly hitting Tokyo

3, 6, 7, 8, 10, 14, 30, 32, 60,
100, 120, 142

An earthquake that directly hits the Greater Tokyo Area, which is predicted to occur within the next 30 years with a 70% probability.

Flood risk map

59, 152, 153

A map created by the Tokyo Metropolitan Government that allows you to visually check predicted flood risks in Tokyo, including from rivers, storm surges, and sediment disasters, using the Disaster Preparedness Tokyo app. The national government is progressing the dissemination of such maps as new flood damage information.

Evacuating upstairs

159

To evacuate by moving upstairs to the second floor or higher when flooding has begun and evacuating to a different location is dangerous

Rainbands 15, 151

A meteorological phenomenon that causes heavy rain when cumulonimbus clouds form in a line and pass over or stagnate in generally the same place.

Long-period Ground Motion 9, 67, 108, 238, 239, 240

Earthquake-induced slow shaking with a period of a few seconds or more, which travels far from the earthquake focus.

Disaster Preparedness Tokyo app 17, 58, 122, 123, 153, 180

This is the Tokyo Metropolitan Government's official disaster preparedness app, which is useful in daily life and also in an emergency.

Tokyo Metropolitan Government Disaster Prevention Map 57, 123, 124

A map provided on the Tokyo Metropolitan Government disaster prevention website. You can find the location of disaster prevention facilities, support stations for people returning home following a disaster, and other relevant facilities.

Tokyo Stockpiling Navi 17, 36

A Tokyo Metropolitan Government website that informs you of the items and quantities needed for "daily stockpiling" and also allows you to purchase them.

Tokyo My Timeline 17, 59, 153

A tool for creating a timeline that allows each person to decide in advance what actions to take in preparation for evacuation due to wind and flood damage.

Tokyo My Predicted Damage 14

A web tool from the Tokyo Metropolitan Government that allows you to create an individual damage prediction tailored to you by inputting attributes such as where you live, the degree of the disaster, conditions about your building, and your household composition.

Designated route for improvement 86, 87

Planned roads that are effective in improving disaster prevention, including stopping the spread of fires and allowing for evacuation and rescue, in order to create "cities in which fires do not spread," especially in developed areas where severe damage is expected in the event of an earthquake.

Emergency warning 157, 240, 245, 246

An emergency warning is issued by the Japan Meteorological Agency when there is a very high risk of a severe disaster.

Sediment Disaster Hazard Area Map 165

A map showing areas where there is a risk of a sediment disaster

Nankai Trough mega earthquake 6, 7, 9, 14, 32

The ocean trench mega earthquake that is predicted to occur with an epicenter in the Nankai Trough, which stretches from the Tokai region to Kyushu.

Hazard map

62, 63, 152, 153, 165, 206

A map that contains information, such as areas predicted to suffer damage, evacuation areas, and evacuation routes, for use in mitigating damage from a natural disaster and for disaster preparedness.

Emergency bag

40, 43, 69, 165

A bag that contains the essential goods to take with you when you have to evacuate.

Evacuation order

110, 156, 175

Action to be taken when a local government issues a Level 4 alert based on disaster prevention information released by the Japan Meteorological Agency. Once an order is issued, all residents in the target area should immediately evacuate from dangerous areas.

Evacuation center

33, 110, 111, 113, 124,
125, 126, 127, 193, 194

A place to live for a certain period of time if your home is damaged and is difficult to live in. A nearby school, community center, etc.

Evacuation area

33, 110, 111, 113, 120,
125, 165, 175, 193, 194

A place for emergency evacuation to protect your life from approaching dangers such as earthquakes, fires, and tsunamis immediately after a disaster. They include large parks, plazas, university campuses, and school grounds.

Manhole toilet

226

A type of toilet for use after a disaster that can be quickly set up by installing a simple toilet seat or panel over a manhole in a sewer pipe.

Damage certificate

254, 255, 258

A certificate issued by municipalities on the degree of damage to dwellings, etc., caused by disasters such as earthquakes, floods, and wind.

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Let's get prepared.
Do everything to protect yourself.



TOKYO METROPOLITAN GOVERNMENT