

# Simulation of a Major Earthquake

Suppose an earthquake of an unprecedented scale directly hits Tokyo. What specific actions should you take at that very moment? This chapter provides simulations of possible dangers and appropriate actions you should take from the moment an earthquake occurs to your evacuation and reconstruction of your life. Now imagine yourself in these situations.



Immediately After

Evacuation

Evacuation Life

Rebuilding Your Life





## Making the right decision is hard at the onset of an earthquake

Among survivors of major earthquakes, there are some who say that the tremor fi rst felt like a plane had crashed nearby, a factory had exploded, or a volcano had erupted. In such a sudden situation, you fi nd it diffi cult to move or think, and it's hard to make an appropriate decision. This makes it important to imagine what you should do. Prepare in advance by talking with your family, participating in fi re drills and disaster drills, and other ways.

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### First, protect yourself

In a strong earthquake, you could be injured or killed if you are trapped under furniture or hit in the head by falling objects such as glass from a broken window. While being careful of what is happening around you, you should move quickly to a place where you will be protected from falling objects or furniture and other heavy items toppling over or sliding into you. Give top priority to protecting yourself and your family. (Self-help)

Evacuation

# Immediately after the Earthquake



### Wait until the tremor subsides

Don't rush out or you could be injured by falling objects, things toppling over or broken glass. Even after the shaking subsides, be careful not to be injured by scattered glass, broken ceramic objects, and other hazardous objects.



## **Check for fire hazards**

If you are using an open flame, stay calm and turn it off after the shaking subsides. If a fire breaks out, take initial measures to put it out. Details  $\rightarrow$  p. 188

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## Secure an exit

After the shaking subsides, open the room's window, door, and the front door to secure a way out to allow you to evacuate at any time.



## Stay clear of glass or walls

If you are outdoors, you could be injured by falling roof tiles or broken glass, or be trapped under a collapsed concrete wall.

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## Living room and kitchen

If you are in the living room, you must be careful about being trapped under tall furniture that has toppled over, or injured by broken glass from windows or lighting fixtures. If you feel a tremor, take cover in a place where you will be protected from falling objects or furniture and other heavy items toppling over or sliding into you. You should also watch out for things like large, heavy kitchen appliances such as refrigerators and microwave ovens, as well as items flying out of shelves. Once the tremor subsides, begin moving, wearing footgear like thick-soled slippers to protect your feet. Secure an exit by opening the door. If you were cooking, first protect yourself, and then after the shaking stops, calmly turn off the flame.

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### Bedroom

Protect your head with items such as a pillow or bed quilt to avoid being directly hit by broken window glass or falling ceiling lights, and move to a place where floor lamps or dressing tables will not topple over on you. If you make it a habit to put your glasses in an eyeglass case when you go to sleep, this can prevent them from breaking and throwing you into a panic.

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After the tremor subsides, put on thick-soled slippers and open the door to secure an exit. Have a flashlight ready for a possible power failure, so that you can move safely even in the dark. Emergency lights that automatically turn on in the event of a blackout are available at stores, so getting one for your bedroom might be a good idea.



Evacuation



## Second floor

The first floor of an old structure could collapse and crush you, so don't rush to the first floor. If you are in a building that does not meet the earthquake resistance standards, decide whether you should escape outside according to the situation. Details  $\rightarrow$  p. 106

## **Toilet**

You might get trapped inside, so open the door when you feel a tremor. If possible, move to a safer place, such as the hallway or front entrance, so that you can quickly evacuate.



#### Bathroom

The bathroom is a place where you can easily get injured because you aren't wearing any clothing to protect you. Cover your head with a washing basin or something to protect yourself from the shattered glass of the mirror or light bulb, and quickly get out of the bathroom and move to a safe place.

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### Shards of glass and other dangerous items on the floor

If you step on shattered glass, broken pieces of ceramic or other materials on the floor, you could be injured and become unable to walk. Put on thick-soled slippers and move to a safer place.



### If trapped

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.





## At the office

Copy machines and other office furnishings on casters that have not been locked can move around the room in an unpredictable manner. You could be severely injured if you are hit by one. You could even be killed if you are hit in the head by objects such as shards of broken glass. While being careful of falling cabinets and shattered glass, you need to move to a safe place to protect yourself from falling objects or furniture and other heavy items toppling over or sliding into you.

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Once the shaking has subsided and you are ready to evacuate, be sure to use the stairs because elevators could shut down from aftershocks and power failures. High-rise buildings shake for a longer period of time, and the higher you are in a building, the more pronounced the shaking—so much so that you may not be able to remain standing. Quickly find a safe place to take cover and wait for the shaking to stop.



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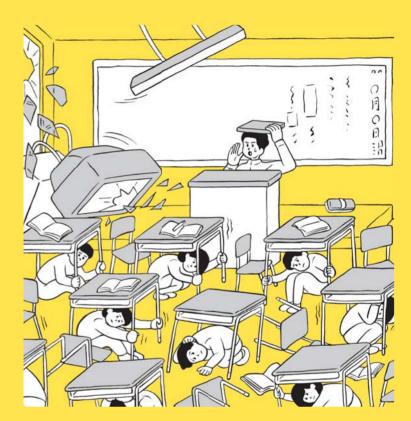
Rebuilding Your Life



## **Business and shopping districts**

While protecting yourself from falling objects and debris, and watching out for collapsing buildings, move to a safe place such as a park. If you are unable to flee to an open area, take refuge in a relatively new, reinforced concrete building that is seismic resistant (see page 108). One of the scariest things that can happen in a crowd is the eruption of panic. Remain calm, especially in areas where a lot of people are gathered.

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## **Schools**

To protect yourself from flying shards of window glass and falling lighting fixtures in the classroom, move away from windows, take cover under a desk, hold on to the desk's legs, and wait until the shaking subsides. If you're in the hall, quickly move away from windows, and on the stairs, grab hold of the railing to avoid losing your balance and falling. When the shaking stops, follow the instructions of the teachers and staff.

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## **Train stations**

Protect yourself from falling objects and move to the nearest column so you don't fall off the platform. If the platform is too crowded to move around, crouch down and wait for the shaking to subside. In subway stations, there is the danger of panic breaking out with people rushing to get above ground. Stay on the platform and never go on to the tracks. Follow the instructions of the station staff once the shaking has stopped.

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## Inside the train

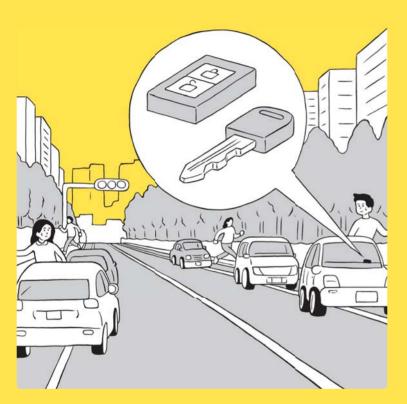
Since trains will make an emergency stop when strong shaking is detected, you could bump into someone or fall down. If you are seated, use your bag or something similar to protect your head. If standing, protect yourself by crouching to the ground. In a crowded train, firmly grab a handrail or strap, and keep your feet firmly planted on the ground so you don't fall over. Follow the instructions of the train crew once the shaking has ended.



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#### In the car

Suddenly lowering your speed could cause a collision. Turn on your hazard lights and gradually slow down. Stop your car on the left side of the road, turn off the engine, and wait for the shaking to stop. Move to a parking lot or open area if possible. When evacuating, leave your keys/smart keys in the car, and do not lock the car doors, so that your car can be moved to let emergency vehicles pass. Leave a note with your contact information inside the car, and take any valuables and your car registration along with you when you go.

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#### Expressways

To avoid colliding with other vehicles, gradually reduce speed and bring the car to a stop on the left side of the road. There's the possibility that the expressway will be closed. Confirm the situation over your car radio or other means.



**Bridges and overpasses** 

Since old bridges could collapse, if you were about to finish crossing the bridge, reduce your speed and complete the crossing. Since every bridge and overpass shakes in a different way, gradually slow down, pull over to the left side of the road, and stop the car.



#### Tunnels

As there is the danger of ceiling or wall collapse, if you are able to see the tunnel exit ahead, leave the tunnel at a reduced speed. If you are in a very long tunnel, pull over to the left hand side and stop the car. Leave the keys in the car and evacuate from the tunnel using the emergency exit.



## Traffic restrictions on disaster response routes

Disaster response routes are roads designated for the smooth passage of emergency vehicles directly following an earthquake. Become familiar with traffic restrictions that will take effect when a major earthquake strikes.

Details → p. 280





#### Department stores, supermarkets, convenience stores

At department stores and supermarkets, watch out for items scattered across the floor and broken product displays, and move near a stairway landing or support column. In a convenience store, use a shopping basket, bag, or other item to protect yourself from falling objects.



#### Theaters, halls, stadiums

In facilities where a great number of people gather such as theaters, halls, and stadiums, do not rush toward the emergency exit or stairs, but listen to the public address system and follow instructions given by the staff.

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### Underground shopping areas

You could be injured if power failure causes the crowd to panic and stampede toward the emergency exit. Remain calm and protect yourself from falling objects. Wait near a column or wall until the shaking subsides.



#### Airports

Even in the event a major earthquake directly strikes Tokyo, airport terminals are not expected to sustain serious damages such as building collapse. However, you should still be prepared to protect yourself from falling objects such as glass and ceiling components.

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#### High-rise buildings

The higher the floor, the stronger the shaking will be. If you are a visitor in the building, remain in a public area such as the elevator hall, crouch close to the ground, and listen for instructions over the public address system.

Details → p. 240



#### Elevators

If you are in an elevator and feel an earthquake, press the button for every floor and get off on the first floor the elevator stops at. If you become trapped, use the intercom button to call for assistance.

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#### Mountainous areas

As there is the danger of being buried alive by a landslide in mountainous areas, you should immediately move away from slopes and cliffs. Also be aware that events such as aftershocks and rainfall increase the risk of sediment disasters.

Details → p. 152



### Islands and coastal areas

At the earliest, a large tsunami could reach the coastline within minutes. Call out to those around you and promptly move to higher ground. If there is no higher ground in the area, evacuate to a location such as a tsunami evacuation tower.



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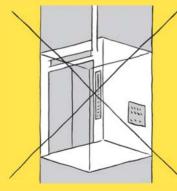
# Things Not to Do When an Earthquake Occurs





Do not light a fire as there is the danger of igniting natural gas, causing an explosion. Do not reset your circuit breaker to restore the flow of electricity as it could start a fire.





Do not touch light switches as there is the danger of sparking a fire or explosion.

Do not use elevators as there is the danger of getting trapped inside.



Do not use the telephone for non-essential, non-emergency calls directly following an earthquake as this could overload telephone lines. Do not walk barefoot indoors as you could be injured from broken glass and other debris.



Do not engage in rescue activities alone. To reduce the risk of injury, work with several people when attempting to rescue others.



Do not use a car to evacuate as it may impede the passage of emergency vehicles.

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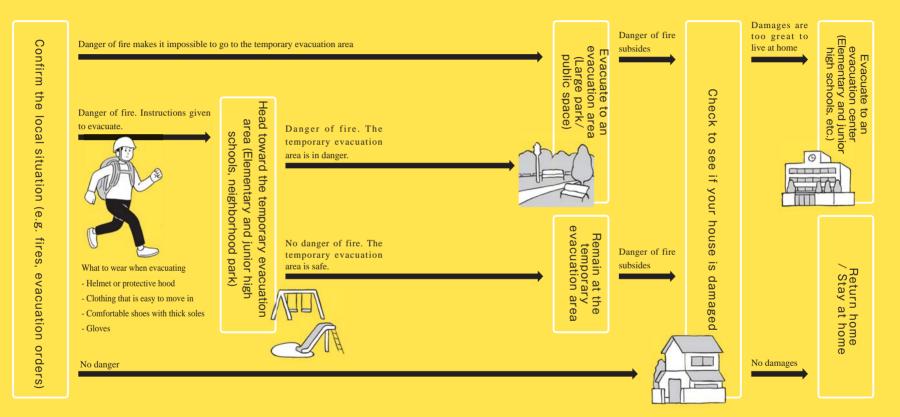
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\*The following flow chart is an example of a two-stage evacuation. As the method of evacuation will differ by municipality, please inquire at your local municipal office.



#### The right time to evacuate

Keep in mind that your decision on evacuation could be a matter of life or death. Don't rely on others to make the decision on whether or not to evacuate, but gather information from the radio, TV, and public authorities, and based on information that you have confirmed with your own eyes and ears, decide how to act using the above flow chart as reference.

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If your home is safe, try to stay at home. If your family members have been separated, leave a memo at your home, use the disaster message services provided by telephone companies, or other means of communication to set up a meeting place.



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## **Decision to Evacuate**



### **Gather 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.

Details → p. 270

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### Use SNS

SNS such as 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 and 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.



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## 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. And 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.



## If you're away from home, stay where you are if it is safe

Immediately after an earthquake, roads and the areas around stations become very crowded, and there's also the risk of being hurt or losing your life in secondary disasters such as the outbreak of a large-scale fire or building collapse. If the safety of your company or school has been confirmed, do not immediately leave for home, but stay and wait and see how the situation progresses. Discuss beforehand with your family about how to contact each other and what actions to take immediately after an earthquake.



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## 😤 What

## What to Do before Evacuating



## Turn off possible sources of fire

In the Great Hanshin-Awaji Earthquake, about 10 percent of deaths were due to fire. This shows how important first response fire extinguishing efforts are. If you discover a fire, and it is still small, use a fire extinguisher or water to put it out. But in conducting such activities, remember that your safety comes first. If the situation seems dangerous, such as with flames reaching the ceiling, stop trying to extinguish the fire and evacuate the area.

Details → p. 188

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#### 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 memo

When evacuating your home, leave a memo 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.



#### Using message boards and SNS

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



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## Important Points for Safe Evacuation



## Be careful about panic in crowds

In crowded areas, actions such as suddenly running have the danger of causing a panic and resulting in accidents. In order to prevent mass panic through the spread of false rumors and information, take care to act in consideration of those around you.



## Move along the wall in underground spaces

Underground shopping areas during a power outage are one of the places at a high risk of mass panic. As underground shopping areas have emergency exits located every 60 meters, do not join everyone in rushing to one emergency exit, but find another one close to you by walking along the wall.

## Evacuating from the apartment veranda

Verandas and balconies have panels separating them from the unit next door. These can be broken through during an emergency such as the outbreak of a fire, to allow escape to the unit next door. There are also evacuation hatches on the floor equipped with ladders to escape to the unit below.

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## Escape from smoke in a fire

Smoke from a fire can be life threatening. Try not to inhale the smoke when escaping by covering your mouth and nose with something like a handkerchief and crouching down as low as possible. If you are unable to see ahead because of the smoke, follow the wall to escape.

## Before a tsunami reaches the river

Concerns about tsunamis are not just limited to areas near the ocean. Tsunamis also move upstream in rivers. Evacuate immediately in a direction at a right angle from the river.

## Know where the tsunami evacuation sites are

If you are near the ocean at the time of an earthquake, immediately move to nearby higher ground or a tsunami evacuation building. If there are none, move to a higher building. At beaches with lifeguards, follow their instructions and evacuate.



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## Protect yourself from falling objects

In residential areas you could be hurt or killed by falling objects such as roof tiles, the outdoor units of air conditioners, and planter boxes. In shopping and office districts, be cautious of falling signboards, neon signs, and shards of glass.

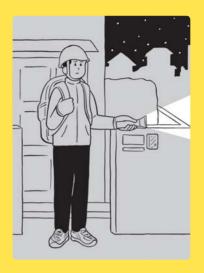
#### Don't touch power lines

Electricity could be flowing through broken or sagging power lines, posing the danger of electrocution. Do not go near such lines and never touch one. The same follows if trees or signs are touching the power line.



## Buildings with cracks are dangerous

You could be hurt or killed by sections of the outer wall or tiles falling from buildings with cracks. If the pillars or earthquake-resistant walls, which form the basic structure of the building, are cracked, the building could collapse. Do not go near such buildings.





## What to be careful of when evacuating at night

Because of low visibility when evacuating at night, there are the risks of stumbling or falling into roadside ditches. Be sure to take particular cautions, such as using wide roads. Use a flashlight when evacuating at night during a power failure, and move carefully while visually confirming the situation.

# What to be careful of when evacuating during the winter

Evacuation during the cold winter season could affect your health. It is important to take sufficient measures against the cold to maintain your health. The use of space heaters in the wintertime also has the danger of causing fires. Evacuate while being careful of fires.

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## Helping Each Other



## Helping each other

In the event of a major disaster such as an earthquake directly hitting the capital, the full efforts of the residents are important to overcome the situation. Don't just think about yourself or your family, but cooperate with those around you and help as many people as possible. This concept of helping each other (mutual help) will help mitigate the damage of the earthquake.

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## Don't hesitate to request cooperation

If a person who has collapsed doesn't respond to you, request cooperation from those around you by calling for help in a loud voice. If there is an AED (automated external defibrillator) nearby, ask for someone to bring it.

Details → p. 176

## Tips to helping each other

If you discover someone trapped under a pillar or beam, ask for the cooperation of others around you to help rescue him. Confirm whether he is still conscious, and if so, it's important to encourage him. Using tools like a car jack could be useful for rescue efforts.

### **Necessity of first-aid**

In a large disaster, many people get injured, but it could be imagined that with difficulties in passing through roads, the arrival of ambulances will be delayed and may not be in time to provide medical assistance. Learn how to treat minor injuries.

Details → pp. 178-187



**Staying at Home** 

Evacuation



### Recommending that you stay at home

If you are able to continue living at home, it is recommended that you do not evacuate to a shelter but stay at home. Life at an evacuation center negatively affects the health of some people due to reasons such as changes to their environment. Before an earthquake strikes, it would be important to retrofit your home against earthquakes, always keep a stock of necessary goods such as water and food, and be prepared to stay at home to all possible extent.

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## Alternatives to gas, electricity and water

It will be reassuring to have alternatives to lifelines prepared. Have a portable gas cooking stove to take the place of gas, and battery-operated headlamps to substitute for lights. For water, always have a lot of water, such as bottled water, and confirm where the nearby water supply point is located.

## Preparations for food and daily essentials

The Tokyo Metropolitan Government has designated November 19 as "Stockpiling Day." If you always maintain extra supplies of food and daily essentials and consume this "daily stockpile" in your everyday lives, it would be easy to continue having an emergency stockpile of goods at home.

Details → pp. 85-87

### Use of the sewer

Confirm if there is any sewer backflow and if your home's sewage facilities are broken or not. If the sewer system cannot be used with, for instance, sewage overflowing into the streets, use the portable emergency toilet in your stockpile or toilets prepared by the authorities.



**Evacuation Life** 

**Evacuation Center** 



### What is an evacuation center?

An evacuation center is a place that temporarily takes in and protects people who cannot continue to live in their homes. The Tokyo Metropolitan Government has about 3,000 evacuation centers comprising schools, community centers and other public facilities, and about 1,200 secondary evacuation centers (welfare evacuation centers) that accept people who would have difficulty living in a regular emergency shelter and need special care.

#### 056

### Process of opening an evacuation center (example)

The following is an example of the process taken to open an evacuation center. Normally, the facility is unlocked by the facility's manager and preparations are begun for its opening. However, at the onset of a disaster, the manager could be late in arriving because he himself was caught up in the disaster. It could thus be possible that the evacuees themselves have to prepare for the opening of the shelter.



#### 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

Discussions are held on what to install where, and matters such as the layout of the living space. An environment where people can live is prepared.



#### **3** Establishing a reception desk

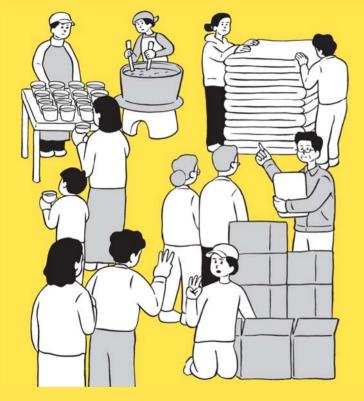
Evacuees are guided from the temporary evacuation area to the evacuation center, and registration begins. A name list is prepared to grasp the situation of the local victims of the disaster, including the evacuees and those needing care.



Evacuation



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 care is also necessary at an evacuation center.

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### After arriving at the evacuation center (example)

Evacuation Life

The following is an example of what evacuees do after arriving at the 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. For evacuees to help each other and cooperate is indispensable.



#### 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. Evacuees who are stranded commuters or others having difficulty returning home give this information.



## 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.



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## The Dos and Don'ts at an Evacuation Center



### **Maintain 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, infants, and small children, and those who need special care.

Details  $\rightarrow$  p. 212



### Use of the toilet

A large number of people use the facility's toilets, and they may become clogged with toilet paper. Use the toilets in the manner instructed by the facility.

Details → p. 200

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## **Securing water**

When tap water is unavailable, follow the instructions of the facility's manager and secure drinking water and water for domestic use. If you are using well water as drinking water, always filter and then boil it.

Details → p. 199



### **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.

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### Take care of your health

The drastic change of environment could negatively affect your health. Be sure to take measures to care for your health. Drink enough water during the summer, and keep warm during the winter. Details  $\rightarrow$  pp. 192-195, p. 197



## **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.

Details  $\rightarrow$  pp. 204-205

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Be sure to follow the center's rules on smoking so that you don't bother those around you, and to prevent passive smoking and the outbreak of fires.



### Pets

If you own a pet, you should follow the center's rules and be responsible in looking after your pet.



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### **Distribution of relief**

Don't be impatient and calmly wait for your turn to come. Depending on the situation, a single person's share of food and relief may have to be shared with other people. Consideration toward those who need special care and 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, it would be reassuring if you could have ethanol ready as a disinfectant.

## 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. Details  $\rightarrow$  p. 206

### **Prevention of heat stroke**

Beware of heat stroke at an evacuation center in the summer (especially children and senior citizens). Frequently replenish the water and salt lost by your body even if you don't feel thirsty, wear permeable clothing that is absorbent and quickdrying, and avoid the heat.

Details → p. 197

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## 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. Details  $\rightarrow$  pp. 208-211



## 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 would be to serve food on disposable containers that have plastic wrap spread on them.

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**Rebuilding Your Life** 

## Consideration toward People Who Need Special Care

People who need special care 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.



## Women and expectant mothers

Women have concerns such as where they can change their clothes, and mothers with infants are concerned about breastfeeding their child. Women who are pregnant or have just given birth also need consideration for their health and privacy.

Details → pp. 220-221

Children rid themselves of stress by

playing. Secure a place and time where

they can express their feelings and

become refreshed.



#### Seniors

At times, senior citizens may be inconvenienced but will not come out and say it. Try to speak to them frequently in a cheery manner 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 a foreign language.

Details → pp. 288-291

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## **Returning to Daily Life**



### **Accepting death**

With 19,225 fatalities in the Great East Japan Earthquake (as of March 1, 2015, Fire and Disaster Management Agency) and 6,434 fatalities in the Great Hanshin-Awaji Earthquake (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 11,000 people will be killed and 210,000 injured.

Details → p. 250

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Evacuation Life

## 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.

Details → p. 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 would be important to lighten the burden on them by stating that you will only be there until you find a new home.



Rebuilding Your Life

## **Starting to Rebuild Your Life**

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### **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. Details → p. 261



## Working again

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

Details  $\rightarrow$  p. 260



## **Returning to school**

If you have financial problems due to the disaster, or if your school was damaged, you can receive an emergency scholarship to pay for expenses related to going to school or transferring schools.

Details  $\rightarrow$  p. 260

Were you able to imagine the possible dangers and actions you should take from the onset of an earthquake to rebuilding your life? It is important that you picture this happening to you. What dangers lurk in your home... in your office... at school? Imagining these as specifically as possible is your first step to disaster preparedness. Let's start now.



#### 070



## Learning from the Experience of Survivors of The Great Hanshin-Awaji Earthquake and the Great East Japan Earthquake

#### 1 No victims through an accurate decision to evacuate Toshiko Saito (resident of Ishinomaki City / 69 years old at the time of the disaster)

At the time of the earthquake, I was on the board of our community association. Immediately after the earthquake, I followed our earthquake response manual and checked my neighborhood to see if there was anyone who had not managed to escape. The ground floor of my house had been inundated with the tsunami, but the second floor was usable, so I stayed at home and went to help out at the evacuation center during the daytime.

Our community association was made up of about 1,200 households and 3,000 residents, and there were 30 board members. We not only participated in the city's annual disaster drill, but also held our own drill, with neighbors actively socializing with each other. Thanks to this, many of the residents knew what to do at the onset of an earthquake and were able to accurately judge if it was necessary to evacuate, and although there were some people who died at their place of work, no one died at home due to the earthquake and tsunami.

Through this experience, I became acutely aware of the fact that not only learning about disaster preparedness, but maintaining communication with your neighbors from normal times are very important to protect lives and survive.



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## 2 Don't give up. Miracles happen.

Fukuhiro Mizuguchi (resident of Kobe City / 60 years old at the time of the disaster)

I was sleeping soundly in my bedroom on the first floor, when a large shaking woke me up. The instant I realized that this was not the usual earthquake, I was trapped under my house that had collapsed and a wardrobe that had toppled over. My wife was not at home at that time and was safe, but I was buried alive. My head was not hit, and since there was a narrow space between me and the ceiling panel, I was able to breathe, but I was not able to move at all.

After a while, I had a loss of sensation in the lower half of my body, my whole body felt like it was burning, my head hurt so much it felt like it was about to crack, my eyeballs were about to pop out, and I was resigned to the fact that I was going to die there. But then when I thought about my family, relatives, my aging parents who were not living with me, and my workplace, I felt that I couldn't just die like this, and even if I am going to die, I'm not going to give up until I do. I gathered all the energy I still had left and poked my finger out of the ceiling panel, and this finger hit someone's hand. Just a few minutes more and I would have lost consciousness and died. I think this spirit of never giving up brought about this miracle.

## Interview 3

#### Thorough talks to resolve trouble

Masanori Murakawa (resident of Kobe City / 50 years old at the time of the disaster)

From municipal housing that had tilted 30 degrees and was about to collapse, I evacuated to the gymnasium of a junior high school along with my neighbors. The most distressing things about evacuation life were troubles arising from gossip and pets.

Because we were all under stress due to concerns about our future lives, dissatisfaction with the current situation, and other matters, the atmosphere at the center often became quite awkward, with suspicion begetting idle fears. For instance, there was a lot of trouble when a rumor spread that the city had granted a subsidy somewhere. Discussions were held every night to have everyone wait until the city informs us of this, rather than be manipulated by the rumors. It took one to two months for everyone to accept this.

Another problem was dogs. For the owner, a pet is a member of the family, but we were opposed to having them inside because there were people who do not like dogs, and also people who were ill. Thorough discussions were held on this matter as well, and in the end it was agreed to have the owners keep the dogs on a chain outside the center. Through this experience, I became aware of the fact that thorough communication is essential to overcoming problems.



#### 4 Children in high spirits lift the spirits of adults as well Setsuko Higashida (resident of Kobe City / 58 years old at the time of the disaster)

My home was not damaged so I stayed at home and went to the evacuation center to give support. There were about 20 to 30 children of kindergarten and elementary school age. At first they were quiet and stayed close to their parents, but later they started to run around and were scolded by the adults for being too noisy.

On the third day after the earthquake, teachers came to confirm that the children were safe, and it was decided to let them play at the school. After playing at the school for an hour or so, the children came back in good spirits. And after a while, the 5th and 6th graders started to help by, for instance, taking down the names of visitors and distributing boxed lunches. Children taking the initiative to find roles that they can serve and becoming revitalized by working for the sake of others, revitalized the adults as well.

But mental care for the children is also essential. If an adult who is close to them stays nearby and shows understanding toward what the children are saying, they will calm down. In order for children to survive the earthquake, it would be important for parents and children to promise to "protect themselves by themselves."



Ms. Higashida's son's home, which collapsed during the Great Hanshin-Awaji Earthquake (her son was rescued). © Setsuko Higashida



#### 5 S You are responsible for protecting your life

Yoko Yamada (resident of Ishinomaki City / 45 years old at the time of the disaster)

On the day after the earthquake, I went from the evacuation center to the area near my house. The tsunami had swept away the houses from where my home stood to the seaside, and there were none left. I wasn't able to see my house over the mountain of rubble, but I think it was also swept away. I realized that I wouldn't be able to move forward unless I accept this. That was the start of my life at the evacuation center.

At first, there was hardly any support, and I was resigned to the fact that I would have to do whatever I was able to do by myself. A local nurse came to the evacuation center as a volunteer. When I discussed the situation of my brother who was on dialysis, I was asked to help the nurse with people among the 2,000 some evacuees, who had become ill or had disabilities, and with first-aid for people living near the evacuation center who fell ill.

Through my participation in this harsh environment where people's lives are at stake, I learned that I should say "no," when I myself was unable at that moment to respond or did not know the answer to questions from the evacuees. In an emergency, to give people expectations to no avail will just invite confusion. I realized that when an earthquake strikes, it would be difficult to protect yourself and survive unless you do whatever you can do by yourself.

#### Interview 6

#### The experience fundamentally changed in my life Hideki Taga (resident of Tokyo / 27 years old at the time of the disaster)

Right after the Great Hanshin-Awaji Earthquake, the phones weren't working, and with no information coming in, I was forced to decide what to do by relying on the words of other survivors. Hearing the voices of people trapped under buildings calling for help and seeing people who were crushed as I moved toward safety, I felt that life as I knew it was falling apart.

Patients that I had seen as a graduate student in clinical psychology who had said they wanted to do die, survived, and in the earthquake, people who wanted to live, had died. This experience made me want to go into work that keeps people alive and supports their lives. Following this, I entered a nursing school and became a nurse. The Great Hanshin-Awaji Earthquake fundamentally changed my life.



## Interview Mental care for children 7 Maiko Fujita (resident of Tokyo / 7 years old at the time of the disaster)

I was 7 years old at the time of the Great Hanshin-Awaji Earthquake. I remember that it took quite a long time for me to understand that an earthquake had struck. I was startled by the large shaking, and living at home after that was also quite difficult. Somehow, it just didn't seem real. But then I saw a district that was hit especially badly. The sight of the expanse of burnt ruins from the train window is something that I will probably vividly remember forever. This was one month after the earthquake struck, but I was very shocked by how bad the situation was. I think it was then that I finally realized that my town had been destroyed.

Since then, I didn't want to talk about that time or look at pictures, and it took quite a long time for me to accept what had happened to me. Children have to become adults while holding such experiences. I think it is important to not only teach them about how formidable an earthquake is, but to have them become capable of overcoming the disaster.

# Interview<br/>8Harsh life at the evacuation center spent with my young children<br/>Aoi Kimura (resident of Higashimatsushima City / 26 years old at the<br/>time of the disaster)

I spent one week at the evacuation center with my sons, ages 5 and 6, and my 6-month-old daughter, who was just about to start eating baby food. The junior high school gymnasium that we evacuated to was not a designated evacuation center and so it didn't have any stockpiles. We had to try to stay warm with just the clothes we were wearing. And since my daughter was about to switch to baby food, I was not producing much milk, and so in place of baby food, I had to give her the food rations that were distributed starting the next day. Life at the evacuation center was stressful for the boys. People would look obviously annoyed when my daughter cried just a little or if my sons shouted and ran around, so I spent much of my time apologizing. There were people who helped us, but my sons were getting frustrated, and I was getting mentally exhausted. I was finally able to get rid of this stress when we returned to our house although the power and water supply lines had not yet been restored.

I had never even considered carrying around emergency goods with me when going out with my children. It would have made life at the evacuation center so much easier if I had a bib for the baby, wet wipes to use as baby wipes or to clean their hands, a portable flashlight, and other such items. I now carry these things around with me at all times, and live with a heightened awareness of disaster preparedness.

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## Disaster Preparedness Quiz

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Q 1	What should be the first thing you do when you feel the tremors of an earthquake? Answer $\rightarrow$ p. 17
Q 2	What should you do if you are using something with a flame when the earthquake strikes? Answer → p. 18
Q 3	What should you do if you are trapped in your room and/or cannot move due to the earthquake? Answer $\rightarrow$ p. 25
Q4	What should you do if an earthquake strikes when you are at school? Answer $\rightarrow$ p. 29
Q 5	What shouldn't you do right after the tremors subside? Answer $\rightarrow p. 38$
Q6	What should you do before evacuating? Answer → p. 46
Q7	What should you be cautious of when evacuating? Answer $\rightarrow p. 48$
Q 8	When you see a fire, how should you escape and in what direction? Answer $\rightarrow$ p. 49
Q 9	What word do we use to mean helping each other to overcome the earthquake? Answer $\rightarrow$ p. 52
Q10	Who are "people who need special care"? Answer → p. 66

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## 10 Key Points to Observe When an Earthquake Strikes

### During the earthquake

#### Earthquake! First, protect yourself

Details →pp. 17, 20-23

When you feel a tremor or receive an earthquake early warning, first, protect yourself.

Hide under a sturdy table or a place where you will be protected from falling objects or furniture and other heavy items toppling over or sliding into you, and wait for the shaking to subside.

#### Points to heed on high floors(from about the 10th floor and up) Details $\rightarrow$ p. 36

On high floors, the swaying could last for several minutes. In addition to causing objects to fall or furniture, etc., to topple over, the large, slow swaying could cause them to slide a large distance.

#### Immediately after the earthquake

2 Stay calm and check possible sources of fire. Take first response fire extinguishing measures if necessary Details → p. 18 If you are using an open flame, stay calm and turn it off after the shaking subsides.

If a fire breaks out, act calmly and put it out.

#### 3 Hasty actions could cause injuries

Details  $\rightarrow$  p. 18

Details  $\rightarrow$  p. 19

Details  $\rightarrow$  p. 19

Be careful of fallen objects, furniture, etc., that has toppled over, and broken glass inside the room.

Don't rush out or you could be injured by falling tiles, broken window glass, and signboards.

#### **1** Open the window or door, and secure an exit

After the shaking has subsided, secure an exit for evacuation.

#### 5 Stay clear of gates or walls

If you feel the tremor while outside, stay clear of concrete block walls and other things that could collapse.

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#### After the Earthquake

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#### Fire and tsunami: safe evacuation

Details  $\rightarrow$  pp. 40, 48-51

If your area is in danger of a large-scale fire, and you feel endangered, evacuate to a temporary evacuation area or evacuation area.

If you are near the ocean and feel a large tremor or if a tsunami alert has been issued, quickly evacuate to a safe place such as high ground.

#### Correct information and proper actions

Details  $\rightarrow$  p. 42

Gather correct information from the radio, TV, fire department, and the government.

#### Confirm the safety of your family and neighbors $Details \rightarrow p. 44$

After confirming the safety of your family, check if your neighbors are safe.

#### Cooperate with each other for rescue and relief $Details \rightarrow p. 53$

Neighbors should cooperate in rescuing and providing relief to people who have been trapped under collapsed houses or furniture.

#### Before evacuating, check your electricity and gas $Details \rightarrow p. 47$

If you need to evacuate, turn off the circuit breakers and close the main gas valve before evacuating.