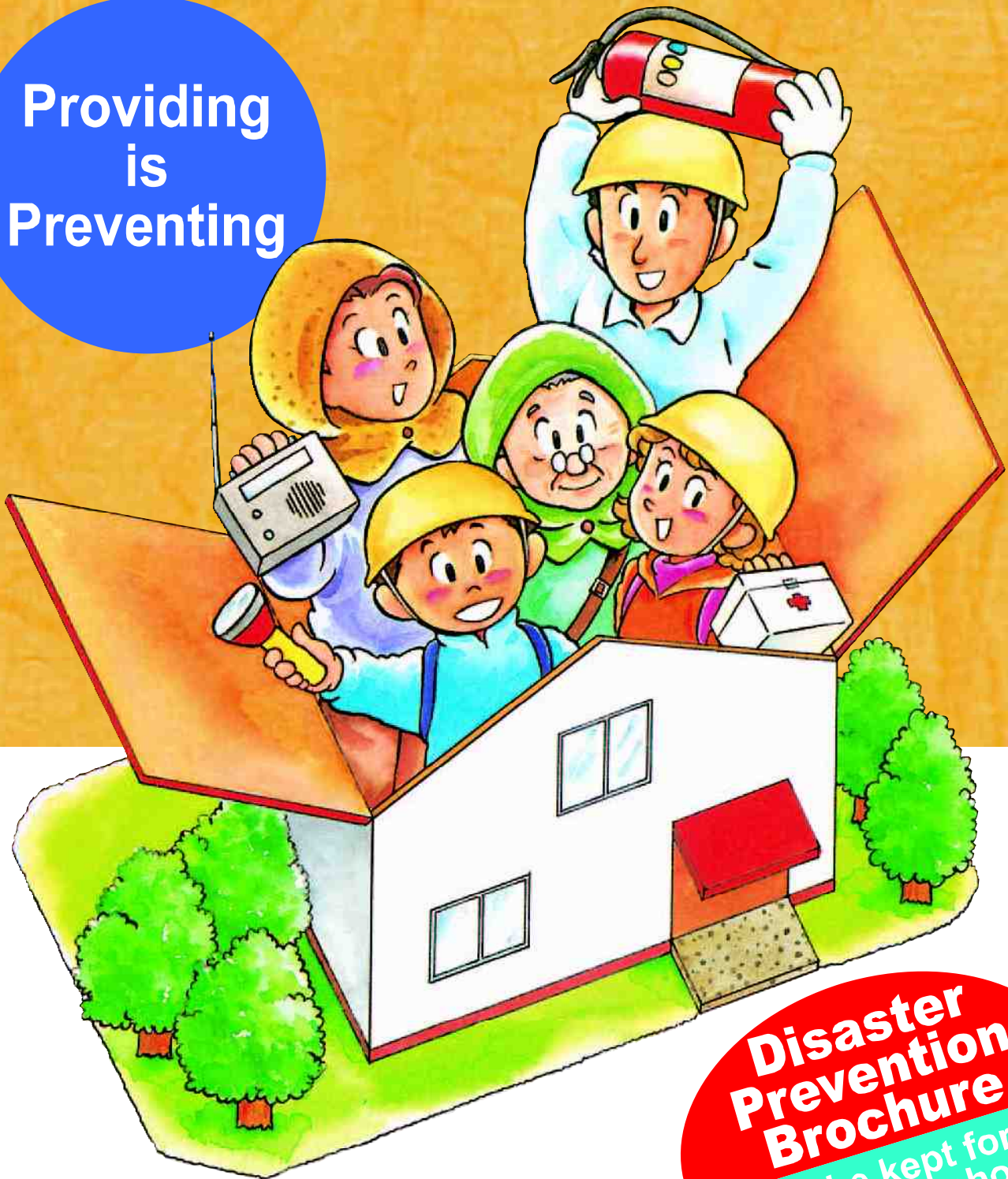


# Always Prepare Yourself for Disaster

Providing  
is  
Preventing



**Disaster  
Prevention  
Brochure**

to be kept for  
your household  
reference

City of Sapporo

# Introduction

Sapporo is regarded as a relatively safe place as it is less subject to natural disasters, including storms, floods and earthquakes. However, natural disasters strike when we least expect them: The Great Hanshin Earthquake is proof of this.

As the proverb goes, "Providing is preventing." Always be prepared for disasters so you can act calmly and protect your life and property should a disaster occur.

Every citizen needs to act calmly and properly in order to minimize damage.

We have published this brochure so that your family can discuss points such as what preparations are necessary for disasters and how one should respond during an emergency.

We hope that this guidebook will be helpful to your family for evaluating your living circumstances and that you keep it with you to prepare for disasters.

## Contents

### Point 1 Preparing for Earthquakes

- Basic Knowledge of Earthquakes ..... 1
- In the Event of an Earthquake ..... 2
- Checklist for Earthquake Preparation Items ..... 4
- How to Secure Furniture ..... 5
- A Simple Survey to Determine the Earthquake-resistance of Wooden Houses... 6

### Point 2 Preparing for Storms and Floods

- Basic Knowledge of Storms and Floods ..... 8
- Preparedness for Landslides and Risks in Underground Facilities ..... 10
- Evacuation Information ..... 12
- Storm and Flood Safety Checks ..... 13

### Point 3 Discussing Disaster Prevention with Your Family

- Discussion with the Whole Family ..... 14
- Important Items to Bring with You during an Emergency ..... 15
- Points to Remember concerning Evacuation ..... 16

### Point 4 First Aid at Home

- How to Give First Aid ..... 17

### Point 5 Family Notes for Disaster Prevention

..... 18

# Basic Knowledge of Earthquakes

It is difficult to predict earthquakes, and no one knows when a severe one will occur. However, appropriate knowledge of earthquakes and constant preparedness will help you respond properly in the event of an emergency. It is important for each of us to be prepared for earthquakes by gaining accurate knowledge.

## Basic Knowledge of Earthquakes

### Magnitude (M)

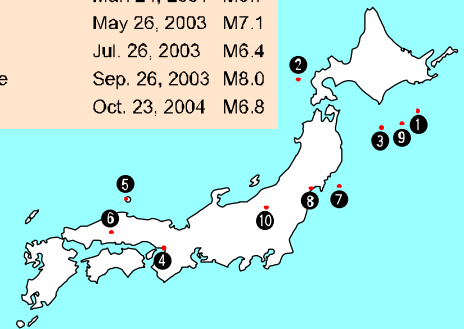
Magnitude (M) indicates the energy of an earthquake. The bigger the figure, the larger the scale of the earthquake: each unit of magnitude represents a 30-fold increase in energy.

### Seismic Intensity

Seismic intensity indicates the scale of tremors at a specific point. There were formerly eight levels; however, there are now eight levels (ten steps) with levels 5 and 6 subdivided into two steps, respectively.

### Recent Major Earthquakes in or near Japan

1	Kushiro Offshore Earthquake	Jan. 15, 1993	M7.8
2	Southwest Hokkaido Offshore Earthquake	Jul. 12, 1993	M7.8
3	Sanriku Far Offshore Earthquake	Dec. 28, 1994	M7.5
4	Southern Hyogo Earthquake (Great Hanshin Earthquake)	Jan. 17, 1995	M7.2
5	West Tottori Earthquake	Oct. 6, 2000	M7.3
6	Geiyo Earthquake	Mar. 24, 2001	M6.7
7	Miyagi Offshore Earthquake	May 26, 2003	M7.1
8	North Miyagi Earthquake	Jul. 26, 2003	M6.4
9	Tokachi Offshore Earthquake	Sep. 26, 2003	M8.0
10	Mid-Niigata Earthquake	Oct. 23, 2004	M6.8



## Seismic Intensity Scale

### Scale of intensity 0

Imperceptible to people.



### Scale of intensity 4

Many people are frightened. Some people try to escape from danger. Most sleeping people are awakened by a tremor of this intensity.



### Scale of intensity 6

**Lower**  
Difficult to keep standing.

2003 Tokachi Offshore Earthquake



### Scale of intensity 1

Felt by only some people in buildings.



### Scale of intensity 5

**Lower**  
Most people try to escape from danger. Some people find it difficult to move.



### Scale of intensity 6

**Upper**  
Impossible to keep standing and to move without crawling.

2001 Geiyo Earthquake



### Scale of intensity 2

Felt by many people in buildings. May awaken someone who is sleeping.



### Scale of intensity 5

**Upper**  
Many people are considerably frightened and find it difficult to move.



### Scale of intensity 7

Thrown by the shaking and impossible to move at will.

1995 Southern Hyogo Earthquake

2004 Mid-Niigata Earthquake



### Scale of intensity 3

Felt by most people in buildings. Some people are frightened.



# In the Event of

Do not panic. Stay calm if an earthquake occurs while you are at home or on the street. In order to protect yourself in such an emergency, you should know beforehand what action to take depending on the situation, e.g., whether you are at home, on the street or on a bus or train.

## At Home

- When tremors are weak, you should seek shelter underneath a solid desk or table (should sudden, strong shaking occur during which you think it dangerous to stay inside, you should immediately run out of the house to a safe place outside).



- Turn off the gas and heaters immediately while the tremors are weak.



- Should a fire occur, low flames can be easily extinguished. Therefore, a fire extinguisher should always be ready.



- While tremors are still weak, open the doors and windows to secure an exit.



- If you are upstairs, you should not run downstairs.



- Watch out for broken glass and dishes.

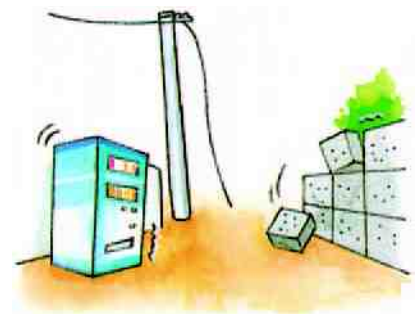


## On the Street

- Cover your head with your hands or a bag and stay clear of windowpanes that could shatter as well as objects that could fall on you as you move to a safe place.



- Stay away from unstable structures such as block walls and vending machines or dangling electrical wires.



# an Earthquake

## In Department Stores and Underground Malls

- Follow the instructions of the clerks or attendants in charge. It is dangerous to rush for the exits.



- Never use elevators or escalators for post-earthquake evacuation.

## On the Train, Subway or Bus

- Hold on to the strap or rail as sudden stops may occur. Watch out for objects falling from overhead racks.

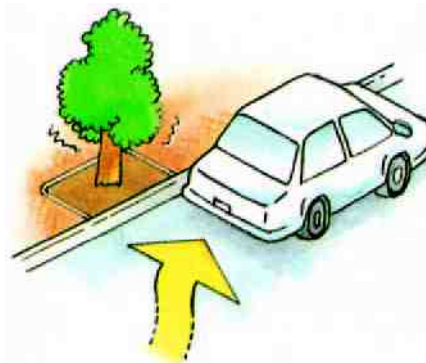


- Temporary stops are sometimes necessary for safety checks. In such cases, follow the instructions of the conductors and stay calm.



## When Driving

- Avoid sudden braking. Instead, reduce speed slowly and stop the car on the left side of the street.



- Listen to the car radio information and observe traffic regulations.



## At the Beach

- If you feel tremors at the beach, go to a nearby hill immediately. Even weak tremors can cause tidal waves (tsunami). Follow the instructions from local police and fire stations.



# Checklist for Earthquake Preparation Items

Consider your household's level of disaster preparedness and check off the following items. Insufficiencies should be remedied as soon as possible.

- There are no heavy objects placed on top of shelves or chests.
- All the air conditioners are firmly secured.
- Dishes will not fall out of the cupboard.
- Every light is firmly secured.
- Furniture is firmly secured.
- Kerosene tanks are firmly secured.
- Fire extinguishers are ready.
  - You know how to use them.
  - They are still usable.
- There are no flammable objects near oil heaters or gas ovens.
- Propane gas cylinders are firmly secured.
  - They are provided with safe connections.
- Block walls are firmly secured.
  - There are steel supports inside the walls.
  - The walls do not need any repairs.

# How to Secure Furniture

Large pieces of furniture and electrical appliances can become deadly when they are improperly secured. Double-check that there is nothing that will fall or collapse and that there is no danger of fire. Furniture should always be checked to see if it is firmly secured.

Stick shatter-proof film on the cupboard glass panes.

Attach a latch to the cupboard door.

Put soft cloth under the dishes.

Secure the dishes with frames to prevent them from falling out.

Visible studs

Studs hidden inside walls

\* When attaching metal fittings to walls, make sure to attach them to the studs hidden inside the walls, rather than to wallboard.

Anchor furniture such as chests  
Anchor chests and other furniture to studs or studs hidden inside walls. Be careful not to leave room between furniture and the wall.

Anchor doll cases, etc.  
Anchor doll cases by tying them to metal fittings attached to the wall.

Fasten books on bookshelves  
Fasten strings across each bookshelf to prevent books from falling.

Fasten hanging lights  
Secure hanging lights by hanging them with wires from three points on the ceiling.

Anchor air conditioners  
Anchor air conditioners with firm, large metal fittings.

## Examples of Anchoring Devices in Urakawa, Hokkaido



**Secure Safe Spaces**

Many people are injured during earthquakes by falling furniture and broken glass. Furniture-free bedrooms are ideal to prevent such injuries, but even when you have to use furniture, you can minimize damage by using only low items or by having enough space to escape from falling furniture.

# A Simple Survey to Determine the Earthquake-resistance of Wooden Houses

Check your home's earthquake-resistance.

- This survey is for checking detached wooden houses (with conventional designs).
- No architectural knowledge is required. All you have to do is look inside and outside the house.
- Referring to the original plans for the house, if possible, will make completing the survey easier.



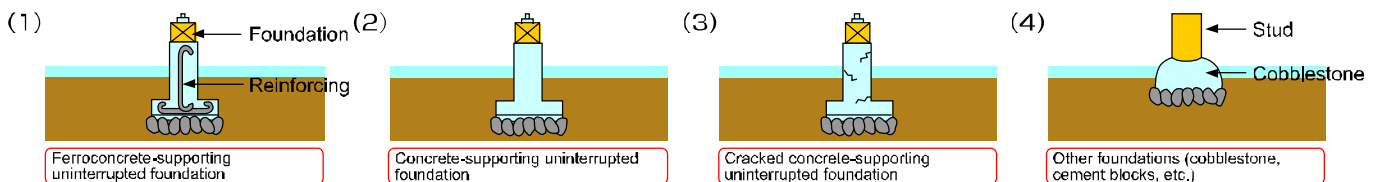
## Evaluation Procedure

- Check the appropriate boxes for sections 1 through 6, and calculate the value for each section.
- Select the appropriate values while referring to illustrations of each item.
- Complete the survey for the 1st floor only, even if it is a two-story house.
- If two or more answers apply, check the one with the lower point value.

## 1 Foundation and Ground

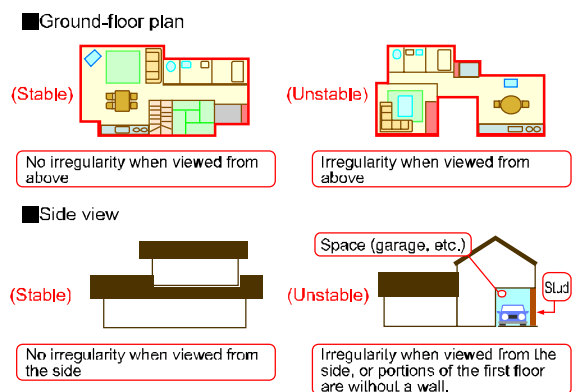
Type of Foundation	Bedrock and other Solid Ground	Volcanic Ash and other Loose Ground	Peat and other Soft Ground	Value
(1) Ferroconcrete-supporting foundation	<input type="checkbox"/> 1.0	<input type="checkbox"/> 0.8	<input type="checkbox"/> 0.7	
(2) Concrete-supporting foundation	<input type="checkbox"/> 1.0	<input type="checkbox"/> 0.7	<input type="checkbox"/> 0.5	
(3) Cracked concrete-supporting foundation	<input type="checkbox"/> 0.7	<input type="checkbox"/> 0.5	<input type="checkbox"/> 0.3	
(4) Other foundations (cobblestones, blocks, etc.)	<input type="checkbox"/> 0.6	<input type="checkbox"/> 0.3	<input type="checkbox"/> 0.1	

Note: Please refer to the original plans for the house if you have them.



## 2 House Structure

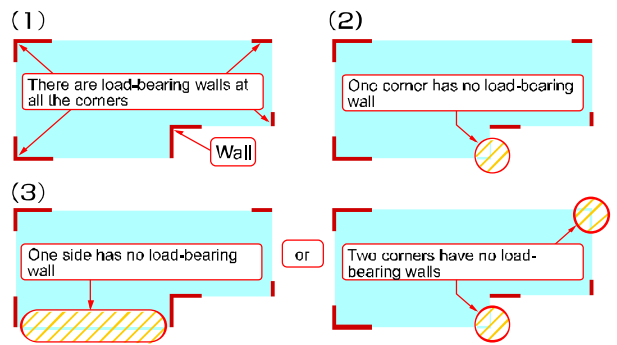
		Value
Stable (floor plan and side view)	<input type="checkbox"/> 1.0	
Unstable floor plan	<input type="checkbox"/> 0.9	
Unstable side view	<input type="checkbox"/> 0.8	





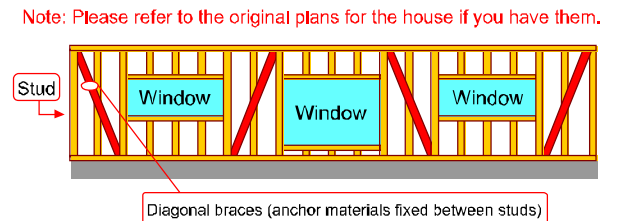
### 3 Wall Arrangement

		Value
(1) Balanced	<input type="checkbox"/> 1.0	
(2) Somewhat unbalanced	<input type="checkbox"/> 0.9	
(3) Unbalanced (One or two sides have no walls)	<input type="checkbox"/> 0.7	



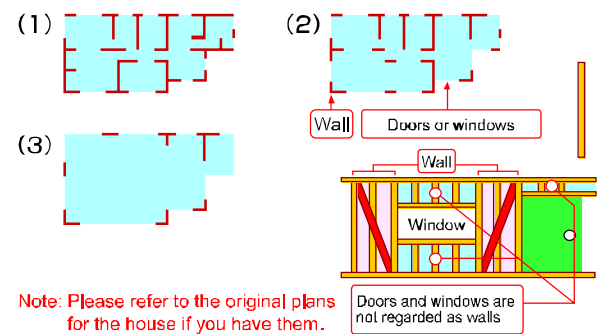
### 4 Diagonal Braces

		Value
Reinforced with diagonal braces	<input type="checkbox"/> 1.5	
Not reinforced with diagonal braces	<input type="checkbox"/> 1.0	



### 5 Total Wall Amount

Total Wall Amount	One-story	Two-stories	Value
(1) Great	<input type="checkbox"/> 1.5	<input type="checkbox"/> 1.0	
(2) Moderate	<input type="checkbox"/> 1.2	<input type="checkbox"/> 0.7	
(3) Low	<input type="checkbox"/> 0.7	<input type="checkbox"/> 0.3	



### 6 House Deterioration

		Value
Houses that have been built or fundamentally rebuilt within the last 25 years or houses without any problems with the windows, doors, floors, etc.	<input type="checkbox"/> 1.0	
Houses that have been built or fundamentally rebuilt over 25 years ago or houses with problems with the windows, doors, floors, etc.	<input type="checkbox"/> 0.9	

Find the total value by filling the values for each item

$$\boxed{1} \times \boxed{2} \times \boxed{3} \times \boxed{4} \times \boxed{5} \times \boxed{6} = \boxed{\text{Score}}$$

Survey results are to be used only as a guide.  
What was the score for your house?

Score	Evaluation	
1.5 or more		Very safe.
1.0 – less than 1.5		Somewhat safe. Double-check by asking for a specialist's advice.
0.7 – less than 1.0		Somewhat dangerous. Consult with a specialist for a thorough examination.
Less than 0.7		Possibility of collapse. Consult with a specialist about reinforcement.

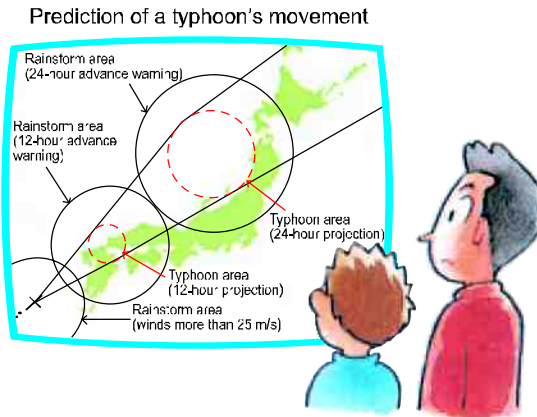
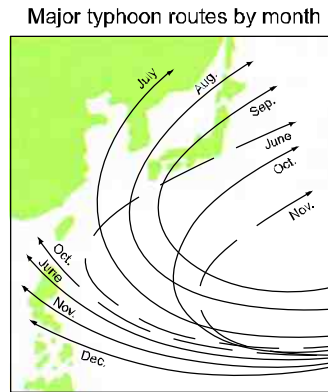
Please call the Building Guidance Department's Building Inspection Section of Urban Renewal & Development Bureau if you have any questions about this simple survey to determine the earthquake-resistance of wooden houses.  
Tel: 211-2867

Reference: "Home Earthquake Countermeasures," Architectural Guidance Division of Department of Construction, Hokkaido Government

# Basic Knowledge of Storms and Floods

Storm and flood damage is caused by a variety of factors such as typhoons, long rains, melting snow, low pressure systems and torrential downpours. In particular, the most serious damage is brought about by typhoons, which hit the Japanese archipelago from summer to autumn and are accompanied by strong winds and heavy rains causing floods, landslides and debris flows.

However, since it is possible to detect the coming of typhoons, torrential downpours and floods, making proper preparations and paying attention to weather reports is key to staying safe in the event of a disaster.



## Criteria for Heavy Rain and Flood Advisories and Warnings

◆ **Criteria for heavy rain advisories**  
An advisory is given when damage is anticipated due to heavy rain.

Hour	Over a 1-hour period	Over a 3-hour period	Over a 24-hour period
Rainfall	30 mm or more	50 mm or more	80 mm or more

◆ **Criteria for flood advisories**  
(In times of snow thaw, it is the total amount of rainfall and melted snow [water equivalent of snow])

Hour	Over a 24-hour period
Rainfall	80 mm or more

◆ **Criteria for heavy rain warnings**  
A warning is sounded when severe damage is anticipated due to heavy rain.

Hour	Over a 1-hour period	Over a 3-hour period	Over a 24-hour period
Rainfall	50 mm or more	70 mm or more	120 mm or more

◆ **Criteria for flood warnings**  
(In times of snow thaw, it is the total amount of rainfall and melted snow [water equivalent of snow])

Hour	Over a 3-hour period	Over a 24-hour period
Rainfall	70 mm or more	120 mm or more

\*Criteria for the central Ishikari area designated by the Sapporo District Meteorological Observatory (Sapporo is included in this area)

## Classification of Typhoon Intensity and Scale

### (1) Classification of typhoon intensity

Intensity	Maximum wind velocity (m/s)
Strong	33 – less than 44
Very strong	44 – less than 54
Violent	54 or more

### (2) Classification of typhoon scale

Scale	Radius of typhoon (km) with winds exceeding 15 m/s
Large	500 – less than 800
Very large	800 or more

## Basic Knowledge of Typhoons

A typhoon is a tropical cyclone whose winds near the center exceed 17 m/s.

When a weather station detects a typhoon approaching, it continually offers information on the typhoon such as its intensity and scale, present location, predicted movement and the wind velocity near its center. You should pay close attention to this information and make preparations.

While a typhoon eventually turns into a low-pressure system, it is necessary to exercise caution as the potential remains for damage due to rain and wind.

### ●Criteria for Rainfall Per Hour

 <p><b>10 – 20 mm</b> [Somewhat heavy rain] Rainfall outside is audible. The ground is covered with puddles.</p>	 <p><b>20 – 30 mm</b> [Heavy rain] Pouring rain. The drains and streams overflow and small-scale landslides occur.</p>	 <p><b>30 – 50 mm</b> [Severe rain] It's "raining cats and dogs." The roads begin to look like streams.</p>	 <p><b>50 – 80 mm</b> [Very severe rain] Torrential rainfall. Rainwater may flood basements and underground structures.</p>	 <p><b>Over 80 mm</b> [Violent rain] The rain may cause large-scale damage.</p>
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### ●Criteria for Wind Velocity and Resulting Damage

\*Wind velocity here refers to the average wind speed over a ten-minute span. Sometimes the maximum instantaneous wind velocity reaches 1.5 to 3 times the average wind velocity.

 <p><b>Wind velocity 10 – 15 m/s</b> [Somewhat strong wind] Poorly-installed signboards and galvanized iron sheets are blown away.</p>	 <p><b>Wind velocity 15 – 20 m/s</b> [Strong wind] Plastic greenhouses begin to break.</p>	 <p><b>Wind velocity 20 – 25 m/s</b> [Very strong wind] Shutters are torn off and windows are broken by airborne objects.</p>	 <p><b>Wind velocity 25 – 30 m/s</b> [Very strong wind] Brick walls begin to collapse and people are unable to stand in one spot.</p>	 <p><b>Wind velocity Over 30 m/s</b> [Violent wind] Roofs are blown off and wooden houses are completely destroyed.</p>
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## Record of Typhoon No. 18 in 2004

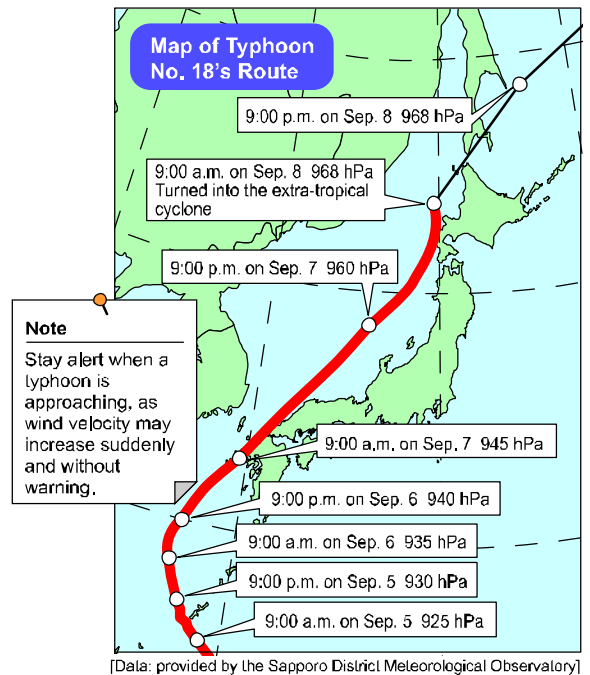
### ● Outline of Typhoon No. 18

Since Typhoon No. 18 moved north on September 8, passing over Hokkaido's western coast from early in the morning until noon, vast areas of the prefecture were affected by the storm and struck by its violent winds. Hokkaido suffered extensive damage as a result of this storm, including 4 deaths and 92 injuries in Sapporo. In addition to the human suffering, physical damage such as that to roofs, exterior walls and trees, was also inflicted by the typhoon. The typhoon also caused blackouts in approximately 60,000 homes throughout Sapporo, further disrupting daily life.

#### Storm Conditions in Sapporo

Classification	Wind velocity	Wind direction	Month/Day (Time)
Maximum instantaneous wind velocity	50.2 m/s	Southwest	Sep. 8 (11:17)
Maximum wind velocity	21.7 m/s	South-southwest	Sep. 8 (10:20)

- **Maximum instantaneous wind velocity:** The wind velocity at any particular moment is referred to as the instantaneous wind velocity, with its highest speed called maximum instantaneous wind velocity. The fastest maximum instantaneous wind velocity on a given day is called the daily maximum instantaneous wind velocity. Sometimes it reaches 1.5 to 3 times the average wind velocity.
- **Maximum wind velocity:** The fastest average speed of winds over a certain period. Usually, average wind speed is the average over ten minutes.  
(Reference)
- **Toyamaru Typhoon** (large-scale typhoon in the past): Typhoon No. 15 approached and passed over Hokkaido between September 26 and 27 in 1954. During the typhoon, howling winds exceeding 30 m/s blew across Hokkaido. The maximum wind velocity of the typhoon exceeded that of the previous year's typhoon No. 18.



### Avoiding Secondary Disasters

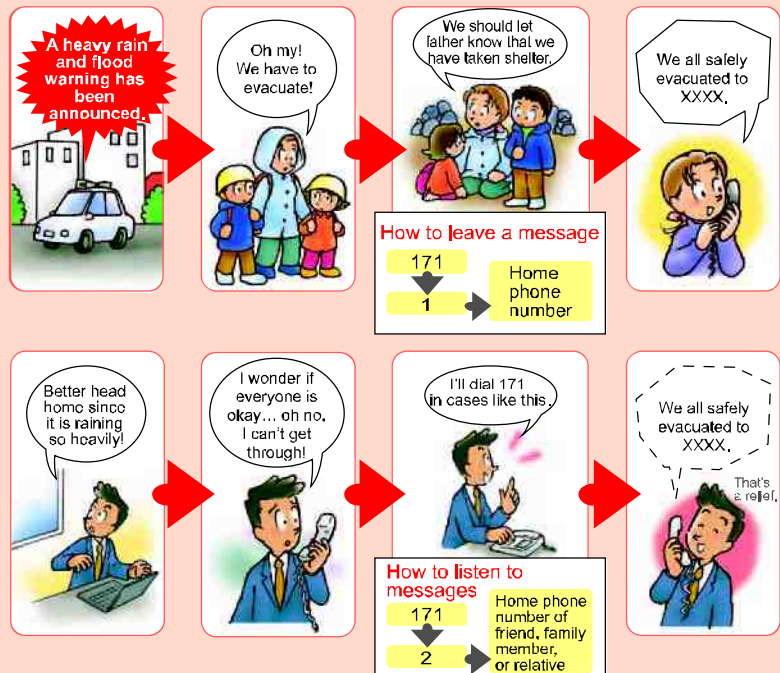
- It is possible to anticipate the scale and direction of typhoons. Therefore, going outside is considered to be the main reason for people suffering injuries during times of violent winds.
- Shutters are torn off and windows are broken by airborne objects with winds over 20 m/s. Roofs are blown off and people are not able to stand in winds over 30 m/s. It is therefore important to remain inside during a typhoon.
- Since electricity and gas are sometimes not available during strong typhoons, it is necessary to be prepared and have flashlights and radios on hand.

### Disaster Message Dial Service 171

\*Disaster Message Dial Service 171 is only available in the event of a disaster.

The Disaster Message Dial Service is an NTT voice mail service that enables friends, families and relatives to leave and access voice messages by recording and listening to messages even when it is difficult to reach areas that have been struck by disasters by phone. What you have to do is to dial 171 and record your message or access the recorded messages by following the voice guidance. A contract for this service is not required in advance. The time that the service becomes available will be decided by NTT, and announced on TV and radio.

©URL of the Disaster Message Dial Service:  
<http://www.ntt-east.co.jp/dengon/>



# Preparedness for Landslides and Risks in Underground Facilities

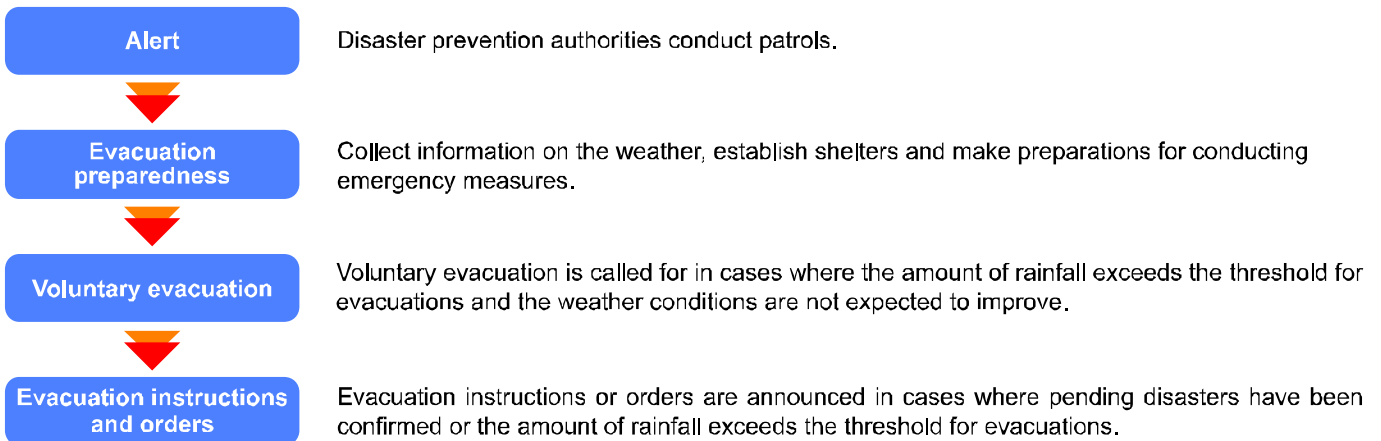
## What is a landslide?

It is necessary to pay attention to debris flow and landslides.

Debris flow		<b>Signs of debris flow</b>	<ol style="list-style-type: none"> <li>1. Water in rivers gets muddy and driftwood is observable.</li> <li>2. Although it rains continuously, the rivers have lower water levels.</li> <li>3. Mountains rumble.</li> </ol>
Landslide		<b>Signs of a landslide</b>	<ol style="list-style-type: none"> <li>1. Cracks appear on cliffs.</li> <li>2. Water springs from cliffs</li> <li>3. Small stones fall down from cliffs.</li> </ol>

**Caution** If you notice such phenomena, vacate the premises immediately and take shelter.

## Landslide Warning System and Evacuation Preparedness



**Caution** At times of heavy rain, it will be difficult to hear evacuation announcements due to the sound of rain. Please take shelter voluntarily as soon as you feel you are at risk or become worried.

■ Criteria for warnings and evacuation preparedness in Sapporo

	Jozankei area	Urban areas (except Jozankei area)
Criteria for warnings	Total amount of rainfall: 70 mm	Total amount of rainfall: 100 mm
Criteria for evacuation preparedness	Total amount of rainfall: 90 mm	Total amount of rainfall: 130 mm

\*Urban areas include Chuo, Atsubetsu, Toyohira, Kiyota, Minami (except the Jozankei area), Nishi and Teine wards. This information is not relevant for other areas since they are not in danger of debris flow or landslides.

## Risks in Underground Areas and Facilities

At times of heavy rain, underground malls, the subway system and basements are very dangerous. When at risk of flooding, take shelter as soon as possible. When taking shelter, avoid using underpasses as they are prone to flooding.



1. During a flood, water can suddenly flow into underground areas.  
Water may enter your house unexpectedly through air vents and other openings, and you may not be able to use the stairs.



3. After a flood, it may be dark due to power failure.  
You cannot use elevators.



2. The conditions outside are not discernable from the basement.  
Pay attention to weather information, and familiarize yourself with the risks of being in a basement during a flood. If there are any changes outside, notify people in the basement about them.



4. Some doors cannot be opened due to water pressure.  
Since it may be hard to open certain doors, take shelter as soon as possible.

### Serious accidents have occurred in which people have drowned in basements.

- In June 1999, the business district around Hakata Station in Fukuoka City was flooded. A person failed to escape from the first basement level of the building and drowned. Water rapidly flowed into the basement from the entrance of the parking lot and other areas. Right after the victim said over the phone, "I may not be able to escape," a scream was heard and the connection was lost.
- In July 1999, low-lying houses in the Shinjuku Ward of Tokyo were flooded. A resident who went to check the basement by elevator got trapped inside the flooded basement and died.

## Preparedness before and during an Evacuation

### 1 Determine a safe escape route

Select an escape route to the evacuation shelter in advance, and make sure whether you can follow it to safety.



### 2 Prepare emergency supplies in advance

Prepare essential supplies that you can take with you.



### 3 Collect accurate information and evacuate voluntarily

Pay attention to the latest information on weather, disasters and evacuation on the radio and TV. Stay aware of rainfall and flood conditions, and evacuate voluntarily as soon as you feel you are at risk or become worried.



### 4 Pay attention to evacuation announcements

Ward offices, fire departments and other organizations may make evacuation announcements in times of impending danger. Evacuate as soon as these announcements are made.



### 5 Help the elderly and others to evacuate

Elderly people, children and sick people have to begin to evacuate earlier than other people. Please cooperate with the elderly, children and sick people in your neighborhood during an evacuation.



### 6 Wear unrestrictive clothing and evacuate in groups of two or more

Make sure to evacuate wearing unrestrictive clothing and in groups of two or more.



### 7 Do not drive

Since cars are obstacles for emergency vehicles, do not drive except under extenuating circumstances.



### 8 Do not leave cars at river banks

Since cars are obstacles for flood prevention activities, do not leave cars at river banks or on roads.



### 9 Evacuate before the flood and what to do afterwards

To avoid danger, evacuate before a flood hits. If the area floods before you are able to evacuate, avoid going outside and take shelter on the second floor, roof, or upper section of the nearest tall or stable building. Pay attention to the flood conditions and evacuate as soon as you feel at risk.



### 10 Take a safe escape route

Take shelter by following high roads, and be careful not to fall into ditches and channels. Since roads and bridges along rivers are dangerous, avoid such routes. If you have to use roads near mountains, be careful of landslides.



# Evacuation Information

Information on weather, disasters, evacuation instructions, and the like is provided through the channels listed below.

## ● Evacuation Information

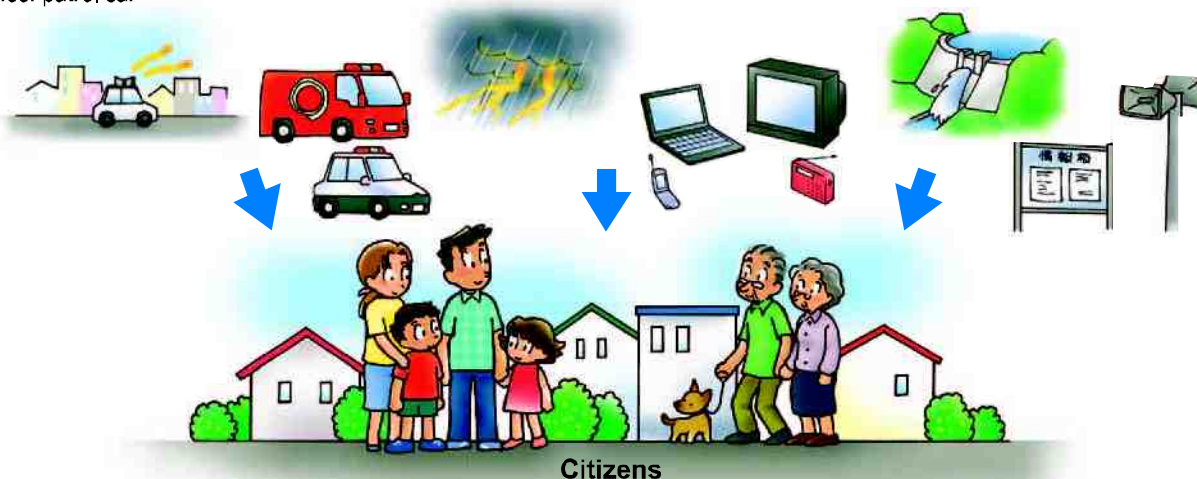
TV, radio, Internet  
 Ward Office: loudspeaker van  
 Fire Department: fire engine  
 Police: patrol car

## ● Weather Information, etc.

TV, radio, Internet,  
 i-mode, EZ web,  
 SoftBank live!

## ● Information on Water Discharged from Dams, etc.

Bulletin boards and public announcement systems of disaster prevention authorities



### Guide to Internet Websites

- Information on evacuations, etc.
  - ◆ Sapporo Emergency Management Office <http://www.city.sapporo.jp/kikikanri/>
- Information on weather (weather forecasts, warnings and alerts, etc.)
  - ◆ Sapporo District Meteorological Observatory <http://www.sapporo-jma.go.jp>
  - ◆ Japan Meteorological Agency <http://www.jma.go.jp/>
- Information on rivers (rainfall and water level information)
  - ◆ Ministry of Land, Infrastructure and Transport's disaster prevention information on rivers <http://www.river.go.jp> (mobile phone: <http://i.river.go.jp>)
  - For Hokkaido: <http://www.river.go.jp/hokkaido/>
- Information on evacuations and weather alerts via mail to your mobile phone
  - ◆ Mobile phone-accessible website: Hokkaido Disaster Information JP <http://www.bousai-hokkaido.jp/mobile/>

\*During disasters, refer to page 18 of the telephone directory

## Reference for Evacuation

Actions taken by the government	Phenomena and conditions	Advised actions
Collecting information and being prepared for warnings.	Typhoon information, heavy rain and flood warnings	Pay attention to information on weather, disasters and evacuation on radio, TV, etc. Take note of rainfall and floods, and take shelter voluntarily if you feel you are at risk. Do not forget to contact your relatives and friends.
Being on alert and collecting and confirming disaster information as well as going on patrol.	Heavy rain and flood warnings	
Advising voluntary evacuation (preparing to issue evacuation instructions). Establishing shelters as needed and dispatching staff.	Anticipating danger (Heavier rainfall / rise in river water level / flooded roads / flooded underground parking lots, etc.)	Be prepared to evacuate at any time, and pay attention to announcements on TV, radio, and from City Hall and Fire Departments. The elderly, children and disabled persons are advised to evacuate. Please help any one who may need assistance at this time.
Issuing evacuation instructions and asking citizens to take shelter. Establishing shelters and dispatching staff.	High risk of disasters (evacuation instructions)	
Giving out evacuation directives and establishing disaster countermeasure offices to provide urgent care.	Impending risk of disasters (evacuation directives)	Go to the nearest designated shelter immediately.

# Storm and Flood Safety Checks

Examine the degree of your family's disaster preparedness and check off the following items. Insufficiencies should be remedied as soon as possible.

The TV antenna is firmly anchored.

Electric wires are not hanging slack (if they are slack, there is the danger of fire or electric shock – call an electric company for repairs).

No part of the galvanized iron sheets are peeled off.

No cracks exist on the mortared walls.

No part of the external wall is rotten or unstable.

Windows are firmly secured.

Always remove garbage and sediment from the drainage ditch to allow it to drain well.

Always bring in flowerpots, clothes-drying bars, and shoes from the veranda or elsewhere around the house when a typhoon is approaching.

Screen doors are secured and will not blow away in strong winds.

Please be aware of topographically dangerous places in your neighborhood.

## When a Typhoon is Approaching

- Pay close attention to typhoon information and warnings on the radio and television.
- Try not to go out or travel.
- Keep a flashlight and radio at hand in case of a blackout.
- Those who live near a cliff must pay special attention to landslides as continuous heavy rain may loosen the ground.
- Those who live near rivers must watch the water level.



# Discussion with the Whole Family

Hold family meetings regularly to discuss the following points and to prepare for possible disasters. It is important to confirm a post-disaster meeting place, the roles of each family member, ways of contacting each other and what items to remove in an emergency.

- Each family member should have a role.  
(Write the name of the person in charge)
  - Securing emergency exits in case of an earthquake. ( )
  - Turning off all flames in case of an earthquake. ( )
  - Turning off all sources of fire in case of an evacuation. ( )
  - Taking out emergency supplies. ( )
  - Protecting children. ( )
  - Extinguishing the initial fire. ( )
  - Checking before going to bed each night that all heating and cooking devices have been turned off. ( )
  - Regularly checking emergency supplies. ( )
- Make sure how to contact and where to meet other family members in an emergency.
  - Family members might be in different places when disasters occur. Ways of contacting each other (e.g., leaving a note at home) and where to meet in such a case should always be discussed.
- Confirm the evacuation site with the family members.
  - Locate the evacuation site together and confirm the route and check the dangerous places.
- Make sure that emergency supplies are not too heavy.

## ■ Map of routes from home to the evacuation sites.

Names of the evacuation sites (1)	(2)

\*For a list of the designated evacuation sites, contact the Emergency Management Office.

### Preparation for the Cold

It would be impossible to bear the cold for more than a few minutes if you go out to take shelter in pajamas and are barefoot at night in winter. Winter clothes, tops and bottoms, rubber boots, gloves and other cold weather clothing should be prepared along with emergency supplies. Discarded ski suits should not be thrown away, but kept in case of an emergency.

### Protecting our City by Ourselves

- Neighbors and town associations should cooperate and help each other in the event of a major disaster. To protect our city from disaster damage, it is important to frequently discuss disaster prevention at community meetings and to develop a cooperative relationship among local citizens.



# Important Items to Bring with You during an Emergency

Prepare emergency supplies by referring to the following examples and put them together in one bag. Food and water (3 liters per person per day) for at least three days should be included.

**First-aid kit**  
Medicinal ointments, stomach medicine, eye lotion, absorbent cotton, bandages, adhesive bandages, etc.

**Protection**  
Helmet or other head protection

**Food**  
Crackers, canned or preserved food

**Drinking water**

**Clothes**  
Underwear, towels, gloves, etc.

**Valuables**  
Cash, bankbooks, cash cards, personal name seals, etc.

**Other**  
Transistor radio, flashlight, matchboxes, gloves, straps, knife, can-opener, plastic bags, etc.

● **For babies:** baby formula, feeding bottles, diapers, etc.  
● **For seniors and the handicapped:** first-aid kits, diapers, a stretcher, etc.  
● **Take note of other necessary items.**

List of radio stations in Sapporo (kHz for AM, and MHz for FM)

AM radio stations: HBC radio (1287), STV radio (1440), NHK No. 1 (567), NHK No. 2 (747)

FM radio stations: NHK-FM (85.2), AIR-G (80.4), NORTH WAVE (82.5)

Community FM stations: Radio Karos Sapporo (78.1), FM Apple (76.5), Sankakuyama Radio Station (76.2), Radio Nostalgia (78.6), Sapporomura Radio (81.3), Drama City FM Shin Sapporo (77.6)

Prepare emergency cards such as the ones below and carry them with you.

## Emergency Card

Name:  
Address:  
Tel: Blood type: RH ±  
Sex: Date of birth:  
Office (or school):  
Tel (office or school):  
Parents' or guardians' names (minors only):

## Emergency Card

Name:  
Address:  
Tel: Blood type: RH ±  
Sex: Date of birth:  
Office (or school):  
Tel (office or school):  
Parents' or guardians' names (minors only):

## Emergency Card

Name:  
Address:  
Tel: Blood type: RH ±  
Sex: Date of birth:  
Office (or school):  
Tel (office or school):  
Parents' or guardians' names (minors only):

## Emergency Card

Name:  
Address:  
Tel: Blood type: RH ±  
Sex: Date of birth:  
Office (or school):  
Tel (office or school):  
Parents' or guardians' names (minors only):

# Points to Remember concerning Evacuation

How to evacuate is the most important thing to know in order to protect yourself in an emergency: go to a safer place as soon as possible, always keep in mind that you should protect yourself on your own first, remain calm in an emergency.

- If you are requested to evacuate, follow the instructions as soon as possible.
- Call out to your neighbors and evacuate together.
- Be sure to evacuate on foot and avoid driving (evacuating by car will cause traffic jams and obstruct fire-fighting and ambulance operations).
- Close gas valves (or the cylinder stopper of propane gas), switch off all electrical appliances and breakers before evacuation.
- Listen carefully to the disaster information on the radio and television. Do not panic, act calmly.



Prepare emergency cards such as below and always carry them with you.

Family member:	Date of birth:	Family member:	Date of birth:
Family member:	Date of birth:	Family member:	Date of birth:
Family member:	Date of birth:	Family member:	Date of birth:
Relatives' tel.:		Relatives' tel.:	
Medical history:		Medical history:	
Name of hospital:	Tel:	Name of hospital:	Tel:
Health insurance card number:		Health insurance card number:	
Name of evacuation sites (1)		Name of evacuation sites (1)	
(2)		(2)	
Family member:	Date of birth:	Family member:	Date of birth:
Family member:	Date of birth:	Family member:	Date of birth:
Family member:	Date of birth:	Family member:	Date of birth:
Relatives' tel.:		Relatives' tel.:	
Medical history:		Medical history:	
Name of hospital:	Tel:	Name of hospital:	Tel:
Health insurance card number:		Health insurance card number:	
Name of evacuation sites (1)		Name of evacuation sites (1)	
(2)		(2)	

# How to Give First Aid

Many people suffer from injuries or illnesses when earthquakes strike. Acquiring proper knowledge of first aid will help you in emergencies. Simple first aid is introduced below.

## Burns

- Cover burns with a clean wet towel and cool them.
- If clothes stick to the burns, don't try to remove them. Cool them together with the burns.
- Do not break blisters.

## Fractures

- Immobilize the fractured limbs with a splint (for arm or leg fractures).
- Immobilize the joints surrounding the fractured parts.

## Cuts

- Do not rub them. Wash them with clean water.
- Sterilize them, cover them with cotton gauze and then bandage them.

## Serious Injuries (how to stop bleeding)

- For serious bleeding, cover the injury with clean cotton gauze and apply direct pressure.
- In case of an injury to the arms or legs, apply pressure to the artery at a point between the injury and the heart to stop bleeding.

## Basic Knowledge of Heart and Lung Resuscitation

### Artificial respiration (for adults) – when a person is not breathing.

- (1) Lay the victim facing up and look into the victim's mouth. If something is inside, turn victim's head to the side and pull the object out with a finger wrapped in cotton gauze or a handkerchief. Hold the victim's forehead with one hand and raise the victim's chin with the forefinger and middle finger of your other hand.



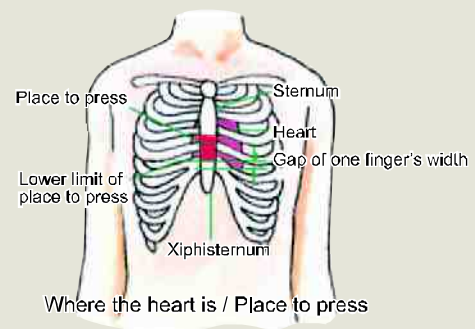
- (2) Pinch the victim's nose with the thumb and forefinger of the hand on his/her forehead. Open the victim's mouth wide and breathe slowly into it once (until the victim's chest swells slightly). Check the victim's chest movement and breathing, then breathe into victim's mouth again.



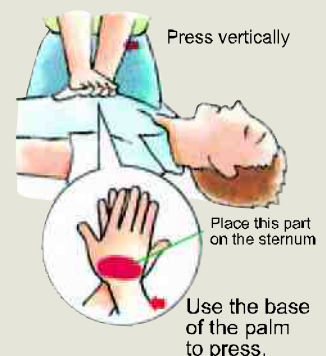
- (3) Continue this process once every 5 seconds until victim can breathe independently.

### Cardiac massage (for adults) – when the heart is no beating.

- (1) Lay the victim facing up on a firm, flat place. Kneel next to the victim.
- (2) Put the base of one hand on the point indicated in the picture and then put the other hand over the first one.



- (3) Straighten your elbows and press the chest by 3.5 - 5.0 cm in depth. (press at a regular frequency of 100 times per minute).



- (4) Repeat a set of 15 cardiac massages and two artificial respirations.

## How to receive practical instruction on controlling bleeding, artificial respiration and cardiac massage.

Various training courses are offered to instruct residents on lifesaving and on how to administer first aid. In order to receive or apply for information, call the Sapporo Disaster Prevention Association at 861-1211 or a local fire department.

## Dial 119 in emergencies (fire, rescue or medical emergency)

Do not panic and state the problem clearly: “fire, rescue or medical emergency.” Then, (1) give the correct address (including the street number), (2) give the correct circumstances (what happened or who was involved?) and (3) state your name clearly.

### Family notes

Name:	Blood type:	Rh±	Date of birth:
Office (School):			Tel:
Name:	Blood type:	Rh±	Date of birth:
Office (School):			Tel:
Name:	Blood type:	Rh±	Date of birth:
Office (School):			Tel:
Name:	Blood type:	Rh±	Date of birth:
Office (School):			Tel:
Family doctor	Tel:		
Health insurance card number			

**Sapporo Citizen Contact Center**

**Tel: 222-4894 Fax: 221-4894**

**E-mail: info4894@city.sapporo.jp**

**● Telephone numbers for disaster information (announced automatically)**

**Fire location** ..... **201-0011**  
**Hospital on duty** ..... **201-0099**

**● Hospital information** (except dental clinics)  
**Emergency Medical Information Center** ..... **221-8699**

**● Night-time emergency hospital information**  
**Physician/pediatrician:**  
**Emergency Hospital** ..... **641-4316**  
Odori Nishi 19, Chuo-ku (open from 7 p.m. to 7 a.m.)  
**Dentist: Dental Treatment Center** ..... **511-7774**  
Minami 7, Nishi 10, Chuo-ku (open from 7 p.m. to 11 p.m.)

**● Blackout or power failure**

The Hokkaido Electric Power Co., Inc. .... **221-3161**

**● Gas leak**  
 Hokkaido Gas Co., Ltd. .... **233-5533**

\*For propane gas leaks, call the nearest gas shop.

( )

**● Waterworks trouble at night or during holidays**  
**Waterworks Emergency Center** ..... **784-3299**

**Other telephone numbers for disaster information:**

● Chuo Ward Office <b>231-2400</b>	● Kiyota Ward Office <b>889-2400</b>	● Shiroishi Fire Department <b>861-2100</b>
● Kita Ward Office <b>757-2400</b>	● Minami Ward Office <b>582-2400</b>	● Atsubetsu Fire Department <b>892-2100</b>
● Higashi Ward Office <b>741-2400</b>	● Nishi Ward Office <b>641-2400</b>	● Toyohira Fire Department <b>852-2100</b>
● Shiroishi Ward Office <b>861-2400</b>	● Teine Ward Office <b>681-2400</b>	● Kiyota Fire Department <b>883-2100</b>
● Atsubetsu Ward Office <b>895-2400</b>	● Chuo Fire Department <b>215-2120</b>	● Minami Fire Department <b>581-2100</b>
● Toyohira Ward Office <b>822-2400</b>	● Kita Fire Department <b>737-2100</b>	● Nishi Fire Department <b>667-2100</b>
	● Higashi Fire Department <b>781-2100</b>	● Teine Fire Department <b>681-2100</b>

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<http://www.city.sapporo.jp/kikikanri/>



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