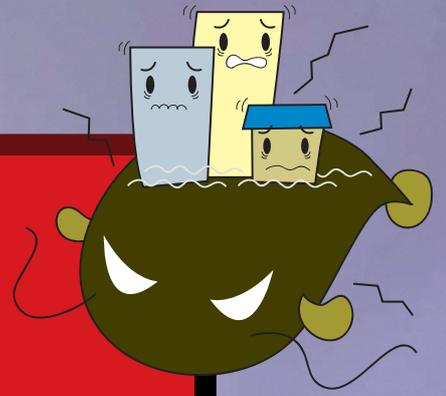




新潟県

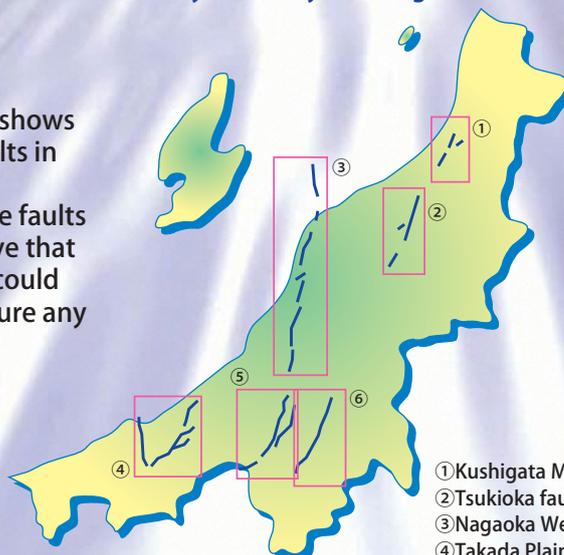


# Earthquake Safety for You and Your Family



At 5:56 PM on October 23, 2004, Niigata Prefecture experienced a major earthquake of 7 on the seismic intensity scale (magnitude 6.9). Then, at 10:13 AM on July 16, 2007, another major earthquake of upper 6 (magnitude 6.6) occurred off the coast of Niigata Prefecture. These two earthquakes combined were responsible for the deaths of over 80 people, and over 7,000 injuries. Many more people were forced to evacuate their homes. We can not know when or where an earthquake will occur next. Major earthquakes such as the Chuetsu Earthquake in 2004 and the Chuetsu Offshore Earthquake in 2007 can occur at any time. It is important to understand what to do in such a situation to protect yourself and your family. In this guide we will teach you the necessary information.

The map to the right shows the several active faults in Niigata Prefecture. The existence of these faults make it easy to believe that another earthquake could strike Niigata Prefecture any time.



- ① Kushigata Mountains fault belt
- ② Tsukioka fault belt
- ③ Nagaoka Western Plain fault belt
- ④ Takada Plain fault belt
- ⑤ Tokamachi fault belt
- ⑥ Muikamachi fault belt



# 1

## Basic Earthquake Information

### Japan the Earthquake Nation

Japan has more earthquakes than any other country, and has received much damage from major earthquakes since long ago. If one includes small, unnoticeable earthquakes, there is always an earthquake occurring somewhere in Japan. In order to protect ourselves and our property, we must try to understand earthquakes and the various consequences in order to deal properly.



### Shindo: Seismic Intensity

In Japan, measuring the scale of earthquakes is normally done using a method that is different from "magnitude". A system called *shindo*, established by the Japan Meteorological Society, is used to measure seismic intensity on a scale from 0 to 7. Each tremor is measured on this scale by seismometers located across Japan. For a detailed explanation of the *shindo* scale, please see page 9.

### Beware of Aftershocks!

It is common for many smaller tremors to occur following a major earthquake. The initial earthquake is called the *honshin*, and following smaller aftershocks are known as *yoshin*. When the epicenter of an earthquake is relatively shallow, aftershocks will often follow. The number of aftershocks will decrease as time goes by. Following the initial earthquake, please keep tuned to your radio or television for the latest earthquake information as it is necessary to be prepared for aftershocks.

### Beware of Tsunamis!

When a major earthquake occurs on the sea floor, ground tremors below the water may cause large changes on the water surface. In these cases, a tidal wave (tsunami) will occur. If you feel a tremor while in the water or near the coast, leave quickly and evacuate to the highest ground possible. Tsunamis can occur repeatedly many times. The first wave is not necessarily the largest one. Until official tsunami warnings have been cancelled, do not go near any coastlines.

### Beware of Other Hazards!

Earthquakes can cause sinkage on flat ground with weak soil, causing caving and fissures on road surfaces. In mountainous areas, there is also a possibility of landslides. When evacuating, consider the landscape and road conditions in your area in order to take proper safety measures. Since gas leaks are also possible, it is necessary to properly handle fires in order to prevent secondary disasters.

### Evacuation Sites

All municipalities in Japan have evacuation sites designated in advance to prepare for emergencies. Common locations include school gymnasiums, community centers, and parks. In an emergency situation, look for evacuation information via radio, television, or loudspeaker van. Follow the directions immediately and proceed to the appropriate evacuation center. Please confirm the location of your local evacuation center through newsletters or websites published by your municipality. If you cannot understand these, please bring this brochure and ask directly at your local government office. For more information please see "5 What to Do During an Earthquake: Mental preparedness and proper attitude in a state of emergency".

# 2

## Creating a Family Disaster Plan



To prepare for earthquakes, it is important to imagine what will happen and what difficult situations might arise. Please discuss a plan for disaster situations regularly with your family.

Is our house vulnerable to earthquakes?

Are large furniture such as wardrobes and bookshelves placed safely so they won't fall down during an earthquake?

What is the first thing we should do if an earthquake occurs?

What should we do if an earthquake occurs while we are swimming at the beach?

How can we confirm our family members' safety if they are at work or school when an earthquake occurs?

Where are the closest evacuation sites from our house, school and office?

What would we do if our neighbors' houses had serious damage caused by an earthquake, and some of them are living alone?

The electricity and gas have stopped because of an earthquake. What would we do about food and light?

Our town was lucky not to be hit by the earthquake, but the next town over was seriously damaged. What could we do?

# 3

## First Things First

...Living in an earthquake resistant house will reduce damage.



What if the house that was supposed to protect you turns out to be a hazard? Of the over 6,400 victims of the Great Hanshin earthquake of 1995, more than 80% were killed by collapsing houses or other buildings.



It is necessary to be sure that you live in an earthquake resistant house. If your house is not satisfactory, then you should implement any necessary anti-seismic reinforcements to your house immediately.



# 4

## Beware of Household Dangers

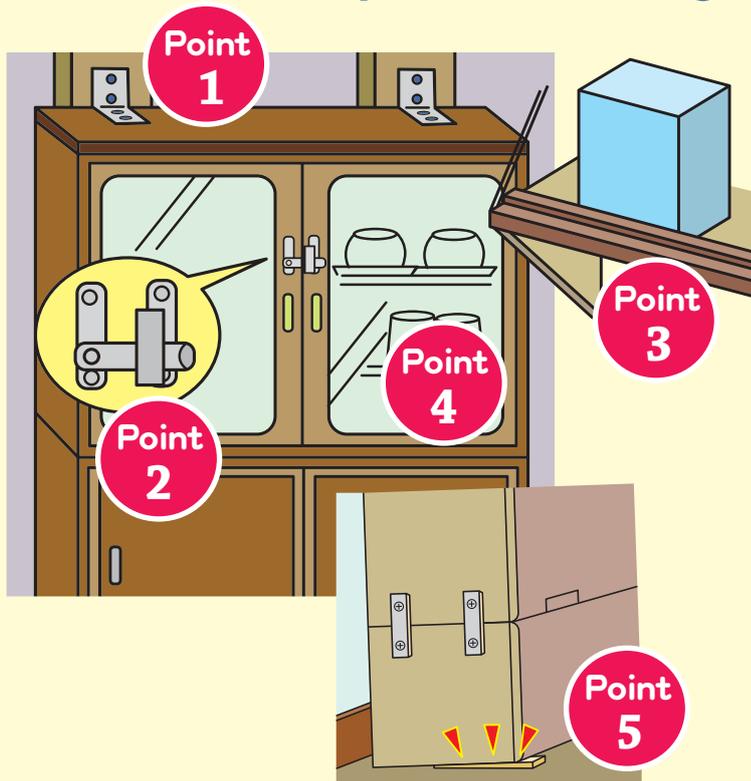
...Avoid falling furniture.

No matter how earthquake resistant a house you live in, it is possible to be injured or even lose your life by falling furniture and or shattered glass. During the 2004 Niigata Chuetsu Earthquake, many people were injured by falling furniture and scattered glass. In this section, we would like to introduce techniques to prevent falling furniture. These simple techniques are cost-effective and easy to try at home immediately.



### Point

### Techniques for Preventing Falling Furniture



- Point 1** Fasten furniture tightly with brackets and bolts to a stable wall or pillar.
- Point 2** Install additional stoppers to cupboard doors to prevent tableware from falling out.
- Point 3** Make sure cords between hanging shelves and the ceiling are tight, and attach additional stoppers for each shelf.
- Point 4** Install earthquake safety film for windows. Many people were injured by scattered glass in the Chuetsu earthquake.
- Point 5** Wedge an object such as a piece of wood between large furniture and the floor so that the furniture leans back against the wall.

# 5

## What to Do During an Earthquake

...Mental preparedness and proper attitude in a state of emergency

When an earthquake strikes, every one of your actions is very important in order to protect your family and yourself. It is recommended that you plan in advance what you can do to protect yourself and your family so that you do not lose your self-control when an earthquake actually strikes.



First 2 minutes



### Protect Yourself!

- Hide under the table.
- Keep doors and windows open to secure your escape route.
- Wear slippers or shoes to protect your feet from broken glass.

2-5 minutes



### Stay Calm and Check your Surroundings!

- Check for and extinguish small fires. Turn off gas in kitchen and bathroom.
- Make sure your family is all right.



5-10 minutes



### Prepare for Evacuation!

- Check emergency items.
- Turn on radio to get information about the current situation.
- Turn off main gas valve and electricity breakers to prevent fire.



10 minutes-  
first few hours



### Check your Neighbor's Safety and Evacuate Together!

- Help neighbors extinguish any small fires.
- Be considerate of those with injuries and disabilities.



Until the 3<sup>rd</sup> day

### At the Evacuation Site!

- Contact separated family members by using the emergency phone line service.
- Do not expect outside support for up to 3 days after the disaster strikes. Try to survive using stockpiles or emergency supplies.
- Don't risk your life by entering collapsed buildings or taking other irrational actions.
- Be patient and cooperate with others.



## Points to Remember

Make sure you know the designated evacuation site nearest to you and the proper evacuation route in order to prepare for any emergency situation. It is also very important to have a family meeting to make sure all of your family members know about the points below. Make an evacuation plan and contact plan, in case you become separated from one another. Remember that phone service may be severely limited following an earthquake.

- Decide a place for your family to reunite after an earthquake has occurred.
- Leave a note of where you're going in the entrance of your home.
- Appoint one of your relatives or friends, preferably one living far away, as a central contact person for family safety information during an earthquake.
- Discuss with family members how to effectively use the NTT Disaster Message Exchange Dial 171 system.





After a major disaster has occurred, people living in the affected area may use NTT "Disaster Message Exchange" to record a message that separated family members or friends can play back and hear. Messages are identified by a telephone number. Both recording and playing back a message requires that telephone number. Therefore the phone number to be used for this purpose (for example, your home phone number) should be decided on ahead of time together with family members and friends.

Please make sure you are familiar with the basic procedure in advance since guidance is only provided in Japanese. This service can only be accessed from within Japan, not from abroad. An English service manual is available at <https://www.ntt-east.co.jp/en/saigai/voice171/> on the NTT homepage.

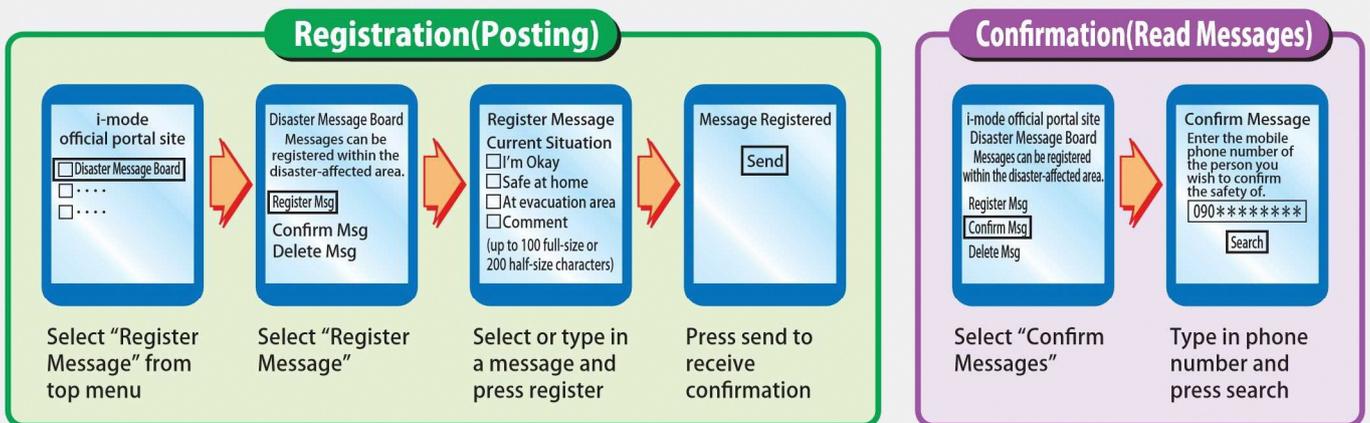


This electronic bulletin board service will be activated in the event of a major disaster such as a high-magnitude earthquake. The bulletin board will enable cellular phone users within the disaster area to post messages in order to notify family and friends of their personal safety and location. The service was launched in order to ensure communication and prevent degradation in network performance, since an overflow of voice calls and data packet transmissions are likely to follow a major disaster.

Sample (i-mode):  
The display might be slightly different depending on service provider.

To use the service in the event of a major disaster, i-mode users in the disaster area should first click on the "Disaster Message Board" link on "iMenu" i-mode official portal site in order to access the Disaster Message Board main page.

- \* Messages can only be registered within the disaster-affected area or surrounding area.
- \* Messages left by a person in the disaster area can be checked from abroad via PHS or PC by visiting the address set up by each company.



Since the "NTT Disaster Message Exchange" and "Disaster Message Board Service" are only available when a disaster occurs, it is not possible to test it on a normal basis. A special testing service is available on the 1st and 15th day of every month, the first three days of the new year, during Disaster Prevention and Volunteer Week (January 15th to January 21st), and Disaster Prevention Week (August 30th to September 5th). Please use this time to get used to these services and their basic procedures.

Please make a plan to test the service at least once with your family and friends. Further questions can be directed to your telephone company.

# 6

## Securing Drinking Water, Food, and Information

... Recommended emergency preparation supplies

During an earthquake, lifelines such as electricity, gas, and water may be damaged. It is also possible that you may not be able to use the toilet or electric appliances. Many shops may also not be open for a period. Therefore, it is important that you have enough supplies to support yourself for a few days after an earthquake.

### Emergency Kits

- Personal Valuables
- Flashlight
- Portable Radio
- First Aid Kit
- Medicine
- Batteries
- Emergency Rations
- Drinking Water
- Copy of passport
- Copy of Alien Registration Card
- Copy of Health Insurance Card
- Spending Cash

### Emergency Supplies

- Emergency Rations (3 day portion per person)
- Drinking Water (3 liters per day per person)
- Items for Daily Life
- Tools



### Point

#### Emergency Supplies and Stockpiles

##### ● Getting Information

Victims of the 2004 Niigata Chuetsu earthquake can tell you the importance of getting accurate information following an earthquake. Power outages can make it impossible to get information from the TV. A portable radio is the most useful way for getting accurate information following an earthquake, and you are strongly advised to include a portable radio in your evacuation pack.

##### ● Are there any news programs available in foreign languages?

NHK TV news has English broadcast as a secondary option in bilingual mode.

NHK AM radio offers programs in 5 different languages (1,593Khz in Niigata City): English, Chinese, Korean, Portuguese, and Spanish. In some areas, local FM stations have foreign language programming. Please check your local listings in advance.

\* FM Nagaoka (80.7MHz) broadcasts radio programs in English, Portuguese, Chinese, and simple Japanese.

Emergency radio programs will be broadcast in case of disaster.

##### ● Lighting

Since the 2004 Niigata Chuetsu earthquake occurred in the evening, those who had prepared a flashlight were very glad they had it. Without a light source, it is very difficult to check your surroundings and evacuate quickly. Please make sure you have at least one flashlight and spare battery in your evacuation pack.

##### ● Family Needs

Emergency supplies should be prepared according to the needs of your family members. If you have a baby or elderly person living with you, extra supplies such as diapers, milk powder, and specialized food for them should be included in your evacuation pack.

# 7

## Protect Yourself by Yourself, Protect Your Community Together.

During a major disaster, roads may be damaged and support may be needed in many different places. Because of this, support provided by police or rescue teams may not always be as urgent or sufficient as you wish to be.

The Great Hanshin Earthquake occurred on January 17th, 1995, and was one of the largest earthquakes to ever hit Japan with a magnitude of 7.3. 6,434 people lost their lives and more than 300,000 people were forced to evacuate. As you can see below, those saved by rescue teams were only a small percentage of the total number of people who were able to be rescued.



Who rescued you when you were trapped during the Great Hanshin earthquake?	
Who	%
Self	34.9%
Family	31.9%
Neighbors	28.1%
Rescue team	1.7%



### Get Involved in Disaster Prevention Activities in Your Community

Following an earthquake, working as a team with your neighbors to extinguish fires, rescue others, and administer first aid will help reduce the damage in your neighborhood more than working by yourself. It is also very important to cooperate with your neighbors in helping to evacuate the children and elderly. After the initial evacuation, please continue to cooperate throughout everyday life in the evacuation site.

You are strongly advised to become part of your community by interacting with your neighbors on a daily basis. By doing so, you will be able to obtain necessary information as well as assistance from your neighbors at a time of unexpected disaster.

Most Japanese communities have self-governing neighborhood associations called *jichi-kai* or *chonai-kai*. These groups sometimes conduct disaster prevention drills so that residents will be prepared to work together and evacuate quickly in the case of a natural disaster. Residents practice evacuating to designated evacuation sites, using fire extinguishers, and cooking meals outside (*takidashi*). You are also encouraged to join these drills. To find out more about local disaster prevention activities, contact the local *jichi-kai* or municipal office in your town.



# 8

## A Helping Hand for Areas Affected by Natural Disaster

### Support Disaster Areas by Volunteering and Donating Money

Volunteers helped immensely with relief efforts after the 2004 Niigata Chuetsu Earthquake and 2007 Chuetsu Offshore Earthquake. In a disaster-affected area, support coming from other areas is critical. We must help each other by participating in volunteer activities as well as sending donations.



### Volunteering Tips

Check the Situation	Get information about safety conditions in the area and how serious the situation is.
Contact the Affected Area	Find out where and what kind of help is needed.
Be Prepared	Bring enough food, clothes, and a sleeping bag.
Register with a Volunteer Center	For effective recovery efforts, register yourself with a volunteer center in the area and follow its instructions.
Take Care of Yourself	Make sure you have enough food and clothes for yourself during your stay and maintain your health so that you will not have to be taken care of by others.

### Sending Relief Goods and Donations

A major disaster temporarily causes a lack of food and daily household items in affected areas. Nonetheless, relief goods donated in small amounts may not be very helpful as they take a lot of work to distribute. If there is not enough for everyone, relief goods may not be distributed at evacuation areas to avoid unfairness.

Therefore, if you would like to offer a helping hand, sending monetary donations is recommended rather than sending relief goods.

If you wish to send relief goods, please follow the following instructions.



- ① Find out what is actually needed by checking available information such as the websites of local governments.
- ② Send in a distributable amount. Only pack one kind of item in each box or container.
- ③ Do not send perishable food or used clothes.
- ④ Write clearly on the box amounts and names of items inside.

# Shindo Seismic Intensity Scale

(Information translated from the Japan Meteorological Agency website)

Scale		Effect on People	Indoor Condition	Outdoor Condition
3		Most people indoors feel the tremors. Some people may become afraid.	Tableware in cupboards may rattle.	Electric wires sway slightly.
4		People feel quite afraid. Some people attempt protective action. Most sleeping people wake up.	Hanging objects sway considerably and tableware in cupboard rattles. Unstable objects may fall over.	Electric wires sway considerably. People walking outside feel the tremors. Some drivers may also notice the earthquake.
lower 5		Most people take protective action. Some people have difficulty controlling their movements.	Hanging objects sway violently. Tableware may fall out of cupboards and books may fall off shelves. Most unstable objects fall over and furniture may move.	Windowpanes may crack or fall out. Telephone poles may shake. Unstable concrete block walls may collapse. Roads may be damaged.
upper 5		People feel very afraid. Most people have difficulty controlling their movements.	Most tableware falls out of cupboards and most books fall off shelves. Televisions may fall off their stands. Heavy furniture may fall over. Doors may become unable to open because of warping. Some doors may fall off their hinges.	Most unstable concrete block walls collapse. Free-standing vending machines may fall over. Driving becomes difficult and many cars stop.
lower 6		It is difficult to stand.	Most heavy unstable furniture moves or falls over. In many cases doors will not open.	Many building wall tiles break and fall off. Many windowpanes crack and fall out.
upper 6		It is impossible to stand and movement is only possible by crawling.	Almost all heavy unstable furniture moves or falls over. Some doors will fly off their hinges.	Most building wall tiles break and fall off. Most windowpanes crack and fall out. Almost all unstable concrete block walls collapse.
7		People are tossed about by the shaking and it is impossible to move by one's own will.	Most furniture moves about considerably and may be thrown by the shaking.	Nearly all building wall tiles break and fall off. Nearly all windowpanes crack and fall out. Stable concrete block walls may be damaged.

# Disaster-related Japanese Vocabulary

## [Disaster Information]

Japanese	English
災害 Saigai	Natural disaster (including earthquakes, typhoon, flooding, tsunami, volcanic eruption)
地震 Jishin	Earthquake
震源地 Shingenchi	Epicenter
震度 Shindo	Seismic Intensity Level (See previous page for explanation.)
余震 Yoshin	Aftershock: A tremor that occurs after a major earthquake.
津波 Tsunami	Tsunami: A very large tidal wave that may follow an earthquake.
がけ崩れ Gakekuzure	Landslide
警報 Keihō	Warning issued by the Japan Meteorological Agency (Kishō-chō) of an impending disaster or hazardous situation and call for appropriate actions. The level of urgency of a <i>keihō</i> is greater than that of a <i>chūihō</i> .
注意報 Chūihō	Issued by the Japan Meteorological Agency (Kishō-chō) when people should be aware of a possible disaster. The level of urgency of a <i>chūihō</i> is less than that of a <i>keihō</i> .
警戒する Keikai suru	(v) To take caution.
被災者 Hisaisha	Disaster victim
犠牲者 Giseisha	Casualty
被災地 Hisaichi	Disaster location
生き埋め Iki-ume	A person trapped under a collapsed building.
意識がない Ishiki ga nai	Unconscious
行方不明 Yukue fumei	Person who has disappeared or is unaccounted for.
安否(を確認する) Anpi kakunin	Safety confirmation
火事 Kaji	Fire
揺れ Yure	Tremor
落下物 Rakka butsu	Falling objects

## [Evacuation Information]

避難 Hinan	Evacuation
避難所 Hinanjo	Evacuation site. Every district has an area set aside as a gathering point for after a disaster.
食料 Shokuryō	Food
食料の配給 Shokuryō no haikyū	Food rations distribution (at evacuation site)
炊き出し Takidashi	Cooked food distribution (at evacuation site)
情報 Jōhō	Information
無料 Muryō	Free of charge
有料 Yūryō	Costs money

Japanese	English
非常食 Hijōshoku	Emergency rations
給水車 Kyū-sui-sha	Water truck. Distributes drinking water at evacuation sites.
使用不能 Shiyō funō	Out-of-service
清掃 Seisō	Cleaning
ライフライン Raifu rain	Lifelines: Gas, electric, water, telephone networks
停電 Teiden	Power outage
断水 Dansui	Water outage
紙食器 Kamishokki	Paper plates and utensils
乾電池 Kandenchi	Batteries
消灯 Shōtō	Turning off the lights
鍵 Kagi	Key
印鑑 Inkan	Hanko (personal seal)
現金 Genkin	Cash
貴重品 Kichōhin	Personal valuables
雨具 Amagu	Rain gear: Umbrella, raincoat etc.
ゴミの分別 Gomi no bunbetsu	Garbage separation
マナーモード(携帯電話) Manā mo-do (Keitai denwa)	Silent mode (mobile phone)
高齢者 Kōreisha	Elderly person
乳幼児 Nyūyōji	Infants and small children
障害者 Shōgaisha	Disabled person
ペット Petto	Pets
国際電話 Kokusai denwa	International telephone call

## [Transportation Information]

交通機関 Kōtsū kikan	Public transportation: train, bus, etc.
車両 Sharyō	Car
渋滞 Jūtai	Traffic jam
通行止め Tsūkō dome	Road closing
停車する Teisha suru	(v) To stop one's car
道路の陥没 Dōro no kanbotsu	Road damage
不通 Futsū	No entry/Out of service
迂回する Ukai suru	(v) To detour
時刻表 Jikoku hyō	Timetable (bus, train, etc)
道路の復旧 Dōro no fukkyū	Road reconstruction

Japanese	English
けっこう 欠航 Kekkō	Flight/boat cancellation
りんじびん 臨時便 Rinjibin	Temporary transportation line (bus, train, etc)

## [Building Condition]

かおく 家屋 Ka-oku	House
しんすい 浸水 Shinsui	Indoor flooding
とうかい 倒壊 Tōkai	Destruction
ぜんかい 全壊 Zenkai	Total destruction
はんかい 半壊 Hankai	Partial destruction
たいしん 耐震 Taishin	Earthquake-resistant
いちぶ はそん 一部破損 Ichibu hason	Partial damage

## [Other]

けが 怪我 Kega	Injury
きゅうごしょ 救護所 Kyūgo sho	First aid station
いりよう 医療 Iryō	Medical treatment
おうきゅうしち 応急処置 Ōkyu shochi	Emergency care/ First aid
きゅうきゅうしゃ 救急車 Kyūkyū-sha	Ambulance
しょうぼうしゃ 消防車 Shōbō-sha	Fire truck
きゅうじょたい 救助隊 Kyūjo-tai	Rescue crew (Police, Fire, Military etc.)
かいちゅうでんとう 懐中電灯 Kaichū dentō	Flashlight
かせつじゅうたく 仮設住宅 Kasetu jūtaku	Temporary housing
ぼうさいくんれん 防災訓練 Bōsai kunren	Disaster prevention drills. Often managed by local neighborhood associations.
ぎえんきん 義援金 Gien-kin	Donation money
り災証明 Risai shōmei	Victim's Certificate: Proof of disaster necessary in order to receive government aid.
しんせい 申請する Shinsei suru	(v) To apply
きゅうこう 休校 Kyūkō	School closing
がいこくじんそうだんまどぐち 外国人相談窓口 Gaikokujin sōdan madoguchi	Consultation service for foreign residents
つうやく 通訳 Tsūyaku	Interpreter
たいしかん 大使館 Taishikan	Embassy
りょうしかん 領事館 Ryōjikan	Consulate
にゅうこくかんりきょく 入国管理局 Nyūkoku kanrikyoku	Immigration Office
がいこくじんとうろくしょう 外国人登録証 Gaikokujin tōroku shō	Alien Registration card
ざいりゅうしかく 在留資格 Zairyū shikaku	Visa status

# Useful Expressions

Japanese	English
<sup>たす</sup> 助けて! Tasukete!	Help!
<sup>あぶ</sup> 危ない! Abunai!	Look out!
<sup>に</sup> 逃げろ! Nigero!	Run Away!
<sup>えいご</sup> <sup>はな</sup> 英語が話せますか? Eigo ga hanase masuka?	Can you speak English?
_____はどこですか? _____ wa doko desuka?	Where is the _____?
_____が使えますか? _____ ga tsukae masuka?	Can I use _____?
_____はありますか? _____ wa ari masuka?	Do you have _____?
_____をください。 _____ o kudasai.	Please give me _____.
_____をもらうことはできますか? _____ o morau koto wa deki masuka?	May I have _____?
_____は開いていますか? _____ wa hiraite imasuka?	Is _____ open?
_____に行くことはできますか? _____ ni iku koto wa deki masuka?	Can I go to _____?
_____が痛い。 _____ ga itai.	My _____ hurts.
_____を知っていますか? _____ o shitte imasuka?	Do you know _____?
_____を教えてください。 _____ o oshiete kudasai.	Please tell me _____.



**For further questions regarding your designated evacuation site and disaster prevention plans, please contact:**

Municipality:	Department:
Address: ----- -----	
Telephone: -----	
E-mail:	

**Please make sure you know where your closest designated evacuation site is.**

Site Name (Building Name): -----
Address: ----- -----
Telephone:

**International Associations provide information and assistance to support foreign residents.  
Please locate the nearest International Association.**

Name: -----
Address: ----- -----
Telephone:

Name: -----
Address: ----- -----
Telephone:



新潟県

For Inquiries about this Brochure

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Niigata Prefecture**

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