

Message to Residents

This booklet compiles broad information on disaster prevention, including estimated inundation area by tsunamis, areas at risk of flooding and sediment disasters due to heavy rain etc., and evacuation information in time of emergency. Let's get prepared for natural disasters, discuss with your family beforehand, and participate in local disaster prevention drills to increase your knowledge and awareness, so that we can minimize the damage.

3 Principles on Disaster Prevention



1 Discuss with your family
 Discuss with your family beforehand. You should designate evacuation shelters and evacuation routes for various disasters such as earthquakes, tsunamis, flooding, and sediment disasters.



2 Evacuate first, then gather information
 It may be too late if you wait for information through TV or radio. Evacuate first to an evacuation area or high ground, then gather information.



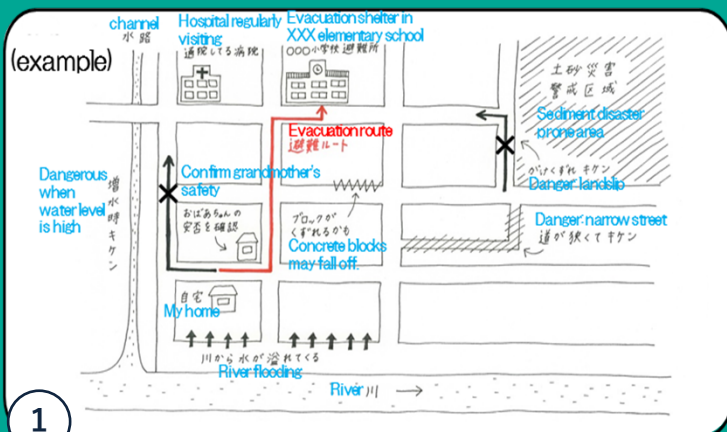
3 Be sure to bring your emergency bag when evacuating.
 Food and daily items by public administrations may not be provided immediately. Be sure to bring your emergency bag to live without the relief for at least 3 days.



family's disaster management map

Let's create Family's Disaster Prevention Map!

Take a walk around your home to confirm the location of dangerous areas, evacuation areas, and evacuation shelters, as well as the routes. You should confirm multiple evacuation routes for some routes might be unavailable. By compiling those information with illustrations etc., create "my family's disaster prevention map".



< You should write the information such as... >

- places where may be at risk
- evacuation routes
- evacuation area and evacuation shelter (including houses of relatives & acquaintances)
- meeting place with your family

Preparedness for Earthquakes

— Prior countermeasures are indispensable —

Major factor of fatalities by earthquakes is crushing. To prevent being killed by an earthquake, let's consider the arrangement of furnishings and take measures to prevent them toppling down.

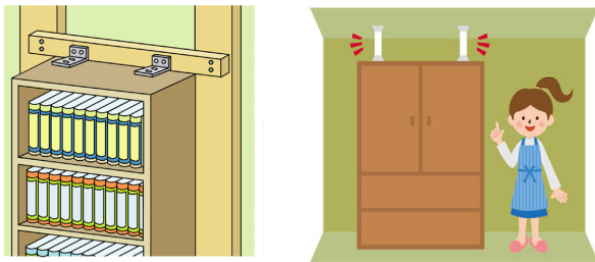
■ Ensure safe space at home

- Try to place as many furnishings as possible in a room you use in lower frequency.
- If not, consider arranging furniture to ensure safe space.

■ Ensure doorway and escape routes clear

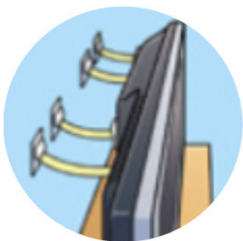
- Do not place topple-prone furniture along escape routes toward doorway.
- Objects around entrance could block doorway in time of emergency.

■ Prevent drawers, and bookshelves from toppling or sliding



- Use L-brackets or chains to secure furniture to the wall.
- Tension rods, which is placed between ceiling and a piece of furniture, should be placed in the back, close to the wall.

■ Prevent TVs from falling over



- Place TVs on low furniture. They can be thrown down by large-scale earthquakes.
- Place adhesive mats (seismic isolation sheets made of resin) on the floor to prevent the floor from tipping over, and fix the backside of the device to the wall or TV board with a wire or the like.

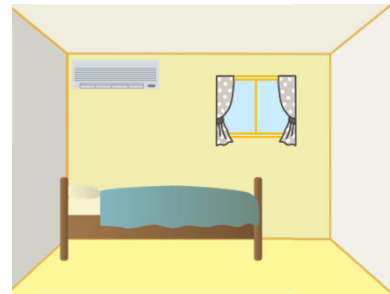
■ Prevent stove fire



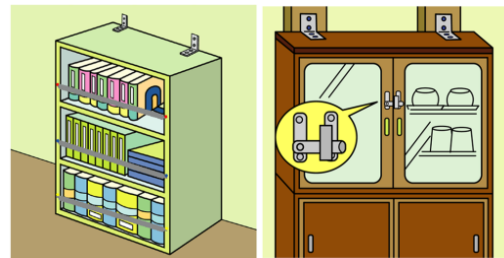
- Ensure stoves have an anti-quake automatic extinguishing system.
- Place stoves in a safe space to protect yourself. Sliding or toppling stoves can hurt you.

■ Pay attention to sleeping space and furnishing arrangement

- Do not sleep where furnishings can topple down in the case of earthquakes while asleep.
- Keep a flashlight at the bedside. You might have to react in the dark.



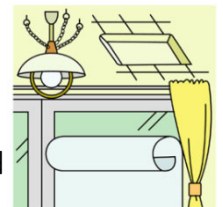
■ Prevent objects from falling out from cupboards or bookshelves



- Use ropes or elastic bands to prevent objects from flying out.
- Install safety latches on doors of cupboards to prevent dishes from falling out.

■ Protect against flying glass

- Please confirm if the following instruction on the shatterproof film is readable: “Please read the manual carefully and apply the film firmly” .
- When using sticky tape, apply also to sashes. Otherwise, the glass will fall down in lump.



■ Prevent lighting fixtures from falling down


- Install chains and anchorage in multiple positions to secure lighting fixtures.
- Secure fluorescent lighting tube by applying heat-resistant tape at its both ends.

Preparedness for Earthquakes

— Seismic intensity and tremors, seismic resistance —

Seismic intensity, tremors and damage status

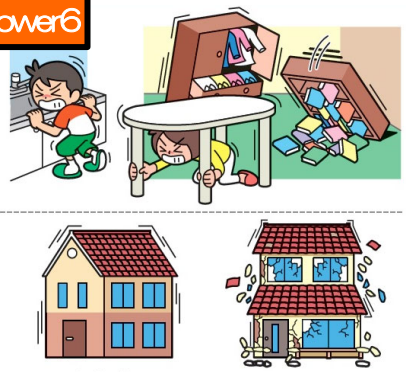
4



[Seismic Intensity 4]

- ◎ Most people are surprised.
- ◎ Suspended objects, such as electric lights, swing widely.
- ◎ Ornaments that are not sitting well may fall over.


Lower6



[Seismic Intensity Lower 6]

- ◎ It may be difficult to stand.
- ◎ Most unfixed furniture will move and some will topple over.
- ◎ Doors may not open.
- ◎ Wall tiles and window glass may break or fall.
- ◎ Wooden buildings with low earthquake resistance may have roof tiles fall or lean. Some buildings may collapse.


Lower5



[Seismic Intensity Lower 5]

- ◎ Most people will feel fear and want to hold on to things.
- ◎ Dishes and books on shelves may fall.
- ◎ Unsecured furniture may move, and unstable objects may fall over.


Upper6



[Seismic Intensity Upper 6]

- ◎ You cannot move without crawling. You may be thrown from your feet.
- ◎ Most unfixed furniture will move, and many will topple over.
- ◎ Wooden buildings with low earthquake resistance will lean or topple over. Large cracks in the ground, large landslides and mountain collapses may occur.

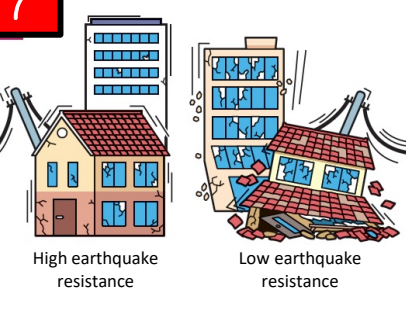
Upper5



[Seismic Intensity Upper 5]

- ◎ It is difficult to walk without holding on to something.
- ◎ Many of your dishes and books may fall off shelves.
- ◎ Unsecured furniture may topple over.
- ◎ Unreinforced block walls may collapse.

7



[Seismic Intensity 7]

- ◎ Wooden buildings with low earthquake resistance are more likely to tilt or collapse.
- ◎ Even wooden buildings with high earthquake resistance may tilt in rare cases.
- ◎ Reinforced concrete buildings with low earthquake resistance are more likely to topple over.

※Created by processing the Japan Meteorological Agency's "Seismic Intensity and Tremors Situation"

Recommendations for earthquake resistance measures

In order to reduce the damage caused by earthquakes, it is important to take measures such as making buildings earthquake-resistant. In order to promote the earthquake resistance of houses and improve safety in the event of an earthquake, Miyako City is conducting the following projects, so please use them as necessary.

Subsidized projects for earthquake-proofing of houses in Miyako City

- ◆ Subsidy for seismic diagnosis of wooden houses
- ◆ Assistance for earthquake-resistant repair work of wooden houses
- ◆ Assistance for installation of furniture fall prevention devices
- ◆ Subsidy for removal of block walls, etc.



○ Miyako City website "Subsidies for earthquake-proofing of houses"
https://www.city.miyako.iwate.jp/kenchikujuutaku/jyuuytaku_taisin_hojo.html

Preparedness for Earthquakes

— Get to know the characteristics of earthquakes and be prepared! —

Post-seismic earthquake

Once it occurs, a large earthquake may occur in the surrounding area.

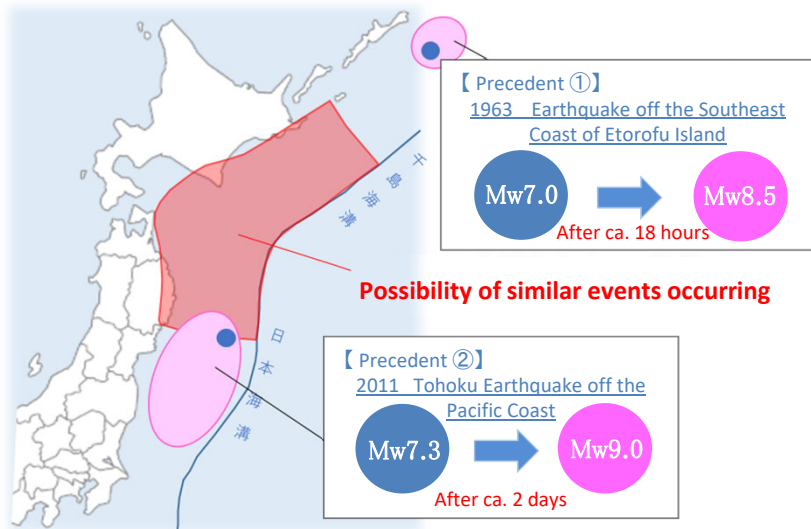
In the area along the Japan Trench and the Kuril Islands Trench, there have been confirmed cases of magnitude 7-class earthquakes followed by even larger magnitude 8-class or larger earthquakes, and similar events are likely to occur in the future.

Warning information will be sent when an earthquake with a magnitude of 7 or higher occurs.

In order to mitigate the enormous damage that could occur in the event of a major earthquake, when an earthquake of magnitude 7 or greater occurs in and around the assumed epicenter of a major earthquake along the Japan Trench and the Kuril Islands Trench, a "Off the coast of Hokkaido and Sanriku Subsequent Earthquake Advisory" will be issued to warn of a subsequent earthquake, as the possibility of a major earthquake is relatively higher than in normal times.

When information is transmitted, reconfirm your preparedness and be ready to evacuate immediately!

- Sleep in a position to evacuate immediately
- Carry emergency supplies with you at all times.
- Prepare for collapse due to shaking
- Be aware of landslides, etc.
- Ensure a system for obtaining emergency information.
- Re-confirmation of preparations for normal times



※Even if information is sent out, it does not necessarily mean that a huge earthquake will occur.

*Sources: Cabinet Office (Disaster Prevention), Japan Meteorological Agency

Long-period ground motion

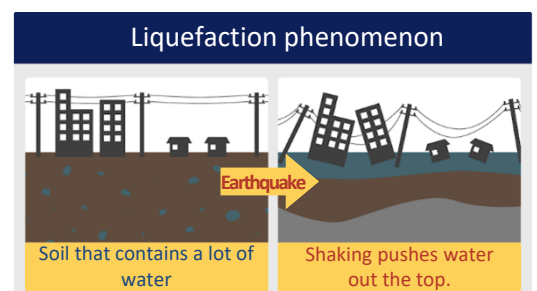
When a large earthquake strikes, high-rise buildings, etc., may experience slow and large tremors that continue for a long period of time, which is called long-period ground motion. Long-period ground motions are classified into four categories, seismic intensity classes 1-4, and are separate from seismic intensity classes. There are no high-rise buildings in Miyako City where long-period ground motion is expected to occur, but **if long-period ground motion class 3 or higher is predicted, an earthquake early warning will be issued.**

Earthquake Early Warning Announcement Criteria

Announcement Criteria	When the seismic intensity is expected to be from Lower 5 (on Japanese seismic intensity scale) or higher, or when long-period ground motion class 3 or higher is expected.
Target area	Areas where seismic intensity 4 or higher is expected, or where long-period ground motion class 3 or higher is expected.

Liquefaction

Liquefaction can also occur due to large seismic tremors. Liquefaction occurs when the soil particles that used to support each other break apart when the ground is shaken by an earthquake in areas where sediment has accumulated, such as flat lands along rivers, and the entire ground becomes a sloppy, liquid-like state. Liquefaction can cause **fountains and sand fountains, subsidence and tilting of detached houses, deformation of road surfaces, and damage to lifeline facilities such as water and sewer lines,** which can have long-term effects on daily life.



Evacuation from Tsunamis

— Move immediately to high ground if an earthquake hits —

When in Danger of Tsunamis

■ If Evacuate first if an earthquake hits!

If you feel a strong or weak but prolonged tremor, or if you see or hear a tsunami warning, even if you do not feel the earthquake, leave the coast immediately and evacuate to the highest possible place.

■ Too late to evacuate if you wait for information!

It may be too late if you wait for information through TV or radio. Remember to evacuate first to high places, then gather information.



■ Evacuate on foot in principle!

Evacuation by vehicles brings on traffic congestion which leads to evacuation failure.



So, evacuate on foot in principle.

※In some places, such as a straight road from the fishing port, it is more advantageous to travel by car. (Never head out to sea.)

■ If an earthquake occurs while driving, first, stop on the left side of the road!

- Avoid sudden steering and braking, etc., as much as possible.
- Stop on the left side of the road in the safest way possible, avoiding sudden steering and braking.
- After stopping, listen to the car radio for earthquake and the surrounding conditions.
- If you continue to drive, pay close attention to road damage, traffic lights out of operation, obstructions on the road, etc.

■ When leaving the car and evacuating, leave the keys on and do not lock the doors!

- If it is unavoidable to leave the car on the road for evacuation, park on the left side of the road, turn off the engine, leave the engine key in an easily accessible place inside the car, such as the driver's seat, close the windows, and do not lock the doors.
- When parking, do not park where it will impede the passage of evacuees or the implementation of emergency disaster response measures.

■ Protect yourself first!

Do not return home to take out valuables or go to see your boat. Protect yourself first unless you will be hit by tsunami.

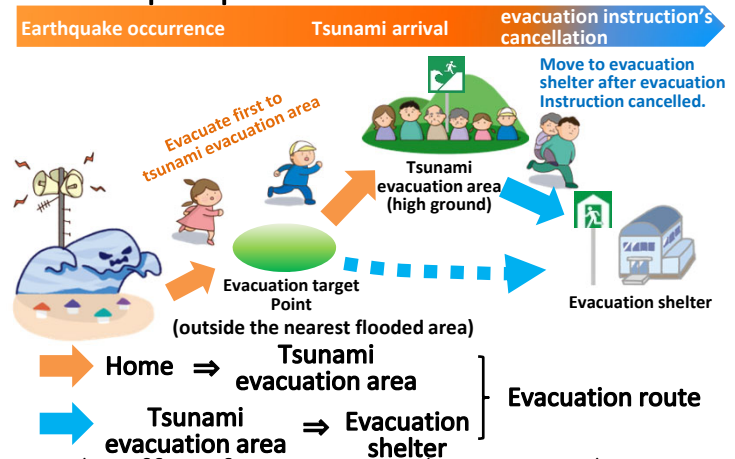
■ Tsunamis hit repeatedly!

Tsunami waves are expected to hit repeatedly. Stay at tsunami evacuation area until tsunami warnings and advisories are cleared.

■ Cooperate with neighbors!

Be supportive of the elderly, those with disabilities, and others in need, so that every member of the community can evacuate. (Help us create an individual evacuation plan.)

~principle of tsunami evacuation~



Category of Tsunami Warning/Advisory

Three categories of tsunami forecasts are; major tsunami warning, tsunami warning, and tsunami advisory. In every forecast, estimated tsunami height, in meters, and estimated arrival time at the coast is attached.

When a major tsunami warning, etc. is announced, Miyako City will announce an evacuation instruction as shown on the right.

Category	Announced tsunami height		Coverage of evacuation instruction area by Miyako City
	Announcement in numbers (range of estimated tsunami height)	Expression in the case of the massive earthquake	
Major tsunami warning	Over 10 m (10m < estimated height)	Huge	The largest class of tsunami inundation zones based on the "Tsunami Disaster Prevention Area Development Act" announced by Iwate Prefecture in March 2022
	10 m (5m < estimated height ≤ 10m)		
	5 m (3m < estimated height ≤ 5m)		
Tsunami warning	3 m (1m < estimated height ≤ 3m)	High	
Tsunami advisory	1 m (0.2m ≤ estimated height ≤ 1m)	(no notation)	Seaside area from levees or seawalls

※It takes time to determine the exact scale of earthquakes with a magnitude of 8 or more. In such cases, Japan Meteorological Agency (JMA) issues an initial warning based on the predefined maximum magnitude to avoid underestimation. When such values are used, estimated maximum tsunami heights are expressed in qualitative terms such as "Huge" and "High" in initial warnings to express the extraordinary situation.

■ Evacuate before inundate!

It is difficult to evacuate in inundation. Since flooding can be predicted, evacuate ahead of time if flooding risk becomes high. Cooperate with those around you to vulnerable people, including the elderly, those with sick, and children.

■ Watch your steps not to fall down!

When you evacuate in flooding, walk carefully while feeling your way with a searching stick etc. not to fall into a dip, gutter, or a manhole. Wear comfortable shoes such as sneakers. Do not wear boots. Boots are easily coming off once they get water inside.

■ It is dangerous to evacuate in flowing water!







Walking in flowing water is difficult even for adults if water depth is 50 cm or over. In such cases, it is safer to move to high ground and wait for rescue.



Sediment Disasters

— Do you know 3 types of sediment disasters and their signs?—

There are a few types of sediment disasters as shown below. For each category, there are signs of impending disasters. Although signs are not always observed, if you notice any unusual condition, immediately move to a safe place with people around you.

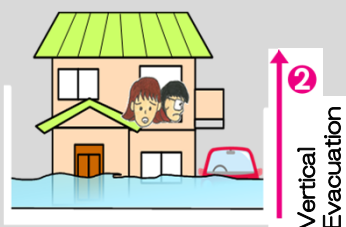
Landslide disasters Types		Signs of impending disasters
Mudslide		<ul style="list-style-type: none"> • The water in the river suddenly becomes muddy and driftwood begins to mix with the water. • The water level of the river drops even though it is still raining. • The sound of splitting trees and rocks crashing against each other can be heard. • Sounds of rumbling from the mountain. 
Landslip		<ul style="list-style-type: none"> • Pebbles are falling • Water gushes out from the cliff • Cracks occur in cliffs • The earth rumbles 
Landslide		<ul style="list-style-type: none"> • Water in wells and streams becoming cloudy or muddy. • The ground cracks or caves in • Water spurts from cliffs and slopes • Cracks and steps appear 

*Source: NPO Sediment Disaster Prevention Publicity Center (SPC)

● What if too Late to Evacuate?

Evacuate to 2nd floor, as the next best measure.

In principle, evacuation in advance to a safe place is the best (①Horizontal Evacuation). But, if it is too late for a safe evacuation, consider temporary evacuation to the 2nd or upper floor (②Vertical Evacuation).



To evacuate from sediment disasters, move to 2nd or upper floor, and to the opposite side from mountain.

Disaster Prevention Information

— Various information is available for your evacuation and disaster reduction —

Evacuation Information in Time of Disaster

Evacuation information is issued by Miyako City in case of potential disasters. In the below table, lower rows are more urgent than upper ones. Note that they are not always issued in a sequence.

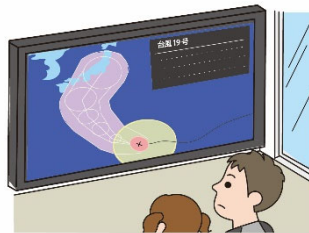
Evacuation Information	Actions to take
Alert level 3 Evacuation of the Elderly, etc.	In areas where disasters are expected, pay attention to the issuance of Evacuation of the Elderly, etc. from the city, and non-elderly people will start to postpone their usual activities, and information such as kikikuru (Risk Map) and river water level information will be released. Prepare for evacuation and make evacuation decisions yourself.
Alert level 4 Evacuation Instruction	In areas where disasters are expected, pay attention to the issuance of Evacuation Instruction from the city, and even if Evacuation Instruction is not issued, make your own evacuation decisions using kikikuru (Risk Map) and river water level information , etc.
Alert level 5 Emergency Safety Measures	It is extremely likely that some type of disaster has already occurred. Please ensure your personal safety immediately as your life is in danger.



Actions to take

When a Level 4 Evacuation Instruction or Level 3 Evacuation of the Elderly, etc. is issued by Miyako City, please evacuate immediately.

Level 1 Early Warning Information



Increase disaster preparedness

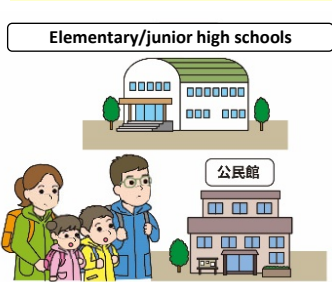
Level 2 Heavy Rain Advisories, etc.



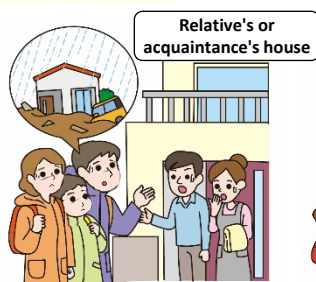
Check your own evacuation behavior

Level 3 Evacuation of the Elderly, etc. as well as

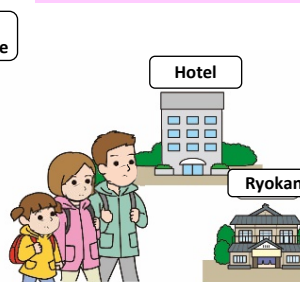
Level 4 Evacuation Instruction



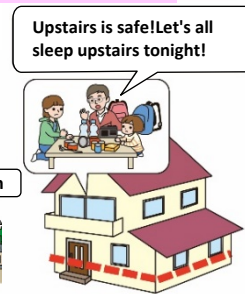
Eviction Evacuation
 [Designated Evacuation Area
 -Designated Emergency Evacuation Area]



Eviction Evacuation
 [Relatives and acquaintances]



Eviction Evacuation
 [Hotel-Ryokan]



Move to the upper floor



Stay on the upper floor (standby)

Level 5 Emergency Safety Measures



Move to the upper floor



Move to the upper floor



Move to a room away from cliffs



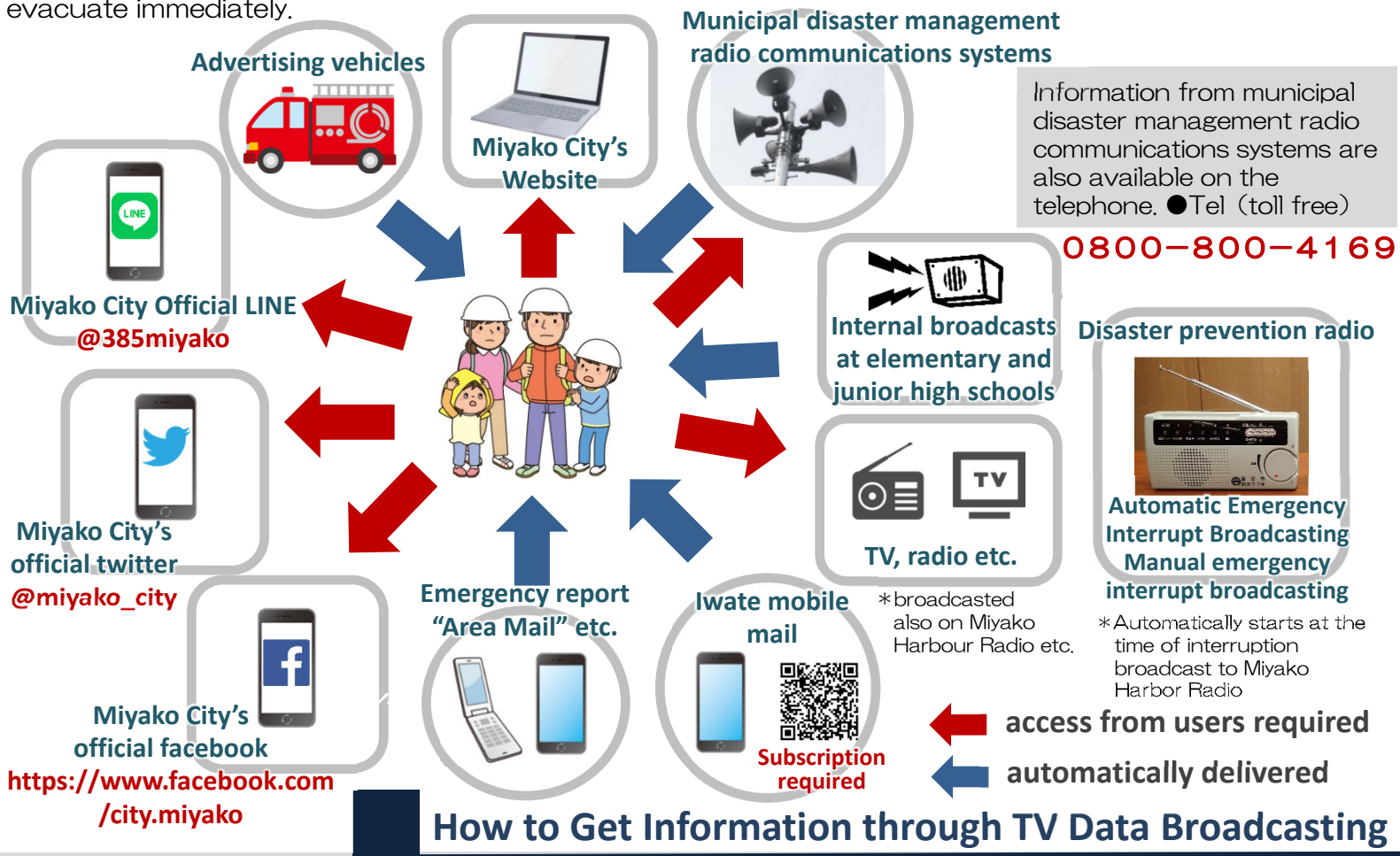
Move to upper floors of neighboring buildings

Disaster Prevention Information

— Various information is available for your evacuation and disaster reduction —

How to Get Disaster Prevention Information

Disaster management information issued by JMA or Iwate Prefectural government are emitted through city government or other measures. When you get tsunami forecast or evacuation information, please evacuate immediately.



How to Get Information through TV Data Broadcasting

Through TV data broadcasting, various disaster prevention information is available, including weather warnings and advisories, evacuation information issued areas, operating shelters, etc. Take time to learn how to obtain information to prepare for disasters.

[example] How to obtain river water level information during flood through data broadcasting.

① Turn to NHK on TV, then push 「d」 button on TV remote controller.

② From the top menu of NHK, select 「Covid-19 (Iwate) • Disaster prevention and living information」.

③ Select 「River water level info」

③ Top Menu of 「Covid-19 (Iwate) /Disaster prevention and living information」

② Top Menu of NHK data broadcasting

④ Top Menu of 「River water level info」

Emergency Warning, Warning, and Advisory

Emergency warning, warning, and advisory, shown in the blow table, are issued by the Japan Meteorological Agency (JMA) to prevent or mitigate disasters. Please pay special attention to weather information when severe rain is predicted.

Types	Criteria for issuance (◎Actions to take)
Heavy rain emergency warning	◎Act immediately to save lives. Heavy rainfall of an intensity observed only once every few decades is forecasted. There is a significant large risk of serious disaster occurring
Heavy rain warning	◎Pay attention to disaster information, and prepare for evacuation. There is a risk that heavy rain will cause serious disasters.
Heavy rain advisory	◎Pay attention to weather information There is the risk that heavy rain will cause disasters.
Record-time heavy rain information	Heavy rain of 100 mm/hr or over is observed or analyzed.
Landslide Alert Information	◎Commence evacuation immediately after evacuation advisory etc. is issued. A very high risk of sediment disaster arises according to observed rainfall and disaster records etc.

Obtaining information on landslides, floods, and tsunamis

●Information on Disaster Prevention and Disasters in Miyako City

Latest disaster conditions, associated information on weather and rivers, other various information on disaster management are available.

At 『Miyako City Website』, click 「Disaster information」 (<http://www.city.miyako.iwate.jp/>)



●Iwate Disaster Prevention Information Portal (Iwate Prefectural)

Not only weather warnings and advisories, you can browse real-time information on weather, sediment disasters, earthquake, evacuation, etc.

Iwate Disaster Prevention Information Portal <http://iwate.force.com/>



●Layering Hazard Map (Ministry of Land, Infrastructure, Transport and Tourism (MLIT))

Estimated inundation areas, roads, hazardous areas, elevation etc. can be layered on a map or an aerial photo so that you can browse seamlessly.

In 『MLIT Hazard Map Portal』, click 「Layering Hazard Map」 (<https://disaportal.gsi.go.jp/>)



●River Disaster Prevention Information (MLIT- Ministry of Land, Infrastructure, Transport and Tourism)

Information such as weather, rivers (water level information, river camera images), landslide disasters, etc. are viewable. From “MLIT Disaster Portal” to “River Disaster Prevention Information” (<https://www.river.go.jp/index>)



●Kikikuru (Japan Meteorological Agency)

Danger levels of disasters caused by rain (landslide, flooding, and flood damage) on a map in real time are viewable. From 『Japan Meteorological Agency Home Page』 to 「Kikikuru (Risk Map)」 (<https://www.jma.go.jp/bosai/risk/>)



●IBC connected app (IBC Iwate Broadcasting)

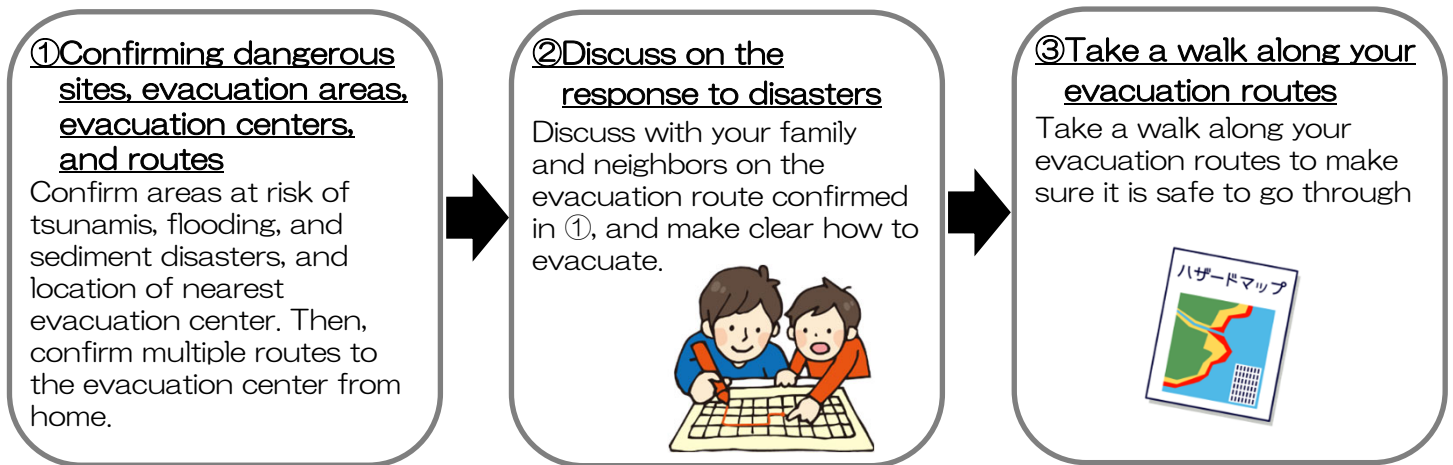
You will receive push notifications of earthquake and tsunami bulletins as well as evacuation information. In addition, kikikuru (Risk Map) information can be overlaid on hazard maps for flooding and landslide disasters. From “IBC Iwate Broadcasting” to “IBC connected app” (<https://www.ibc.co.jp/appli/>)



To Make the Best Use of Integrated Disaster Prevention Hazard Map

How to Use Hazard Maps

Add important information on this hazard map to create "Your Hazard Map". You should include information such as "Where is the dangerous sites that I should know?", "Where are the evacuation areas and evacuation centers for my family?", "Who to contact?" etc.



◆ These Hazard Maps are Only Estimation ! !

Estimated inundation areas and areas at risk shown in the Hazard Maps are identified based on a certain assumption. Although large-scale disasters are considered, disasters can happen in the area where any risk is not shown in the Hazard Maps. So, when evacuating, please not only obtain information on weather or disaster prevention, but also pay attention to the condition of evacuation routes.

Let's work on voluntary disaster prevention activities

In order to prevent the spread of damage caused by disasters, it is difficult to take effective measures at an early stage due to the limitations of municipal response (public assistance) alone. Therefore, it is necessary to protect oneself through one's own efforts (self-help) and to engage in disaster prevention activities in an organized manner by getting together with people in the community and neighborhood whom one usually meets face-to-face and cooperating with each other (mutual assistance).

Let's work with voluntary disaster prevention organizations and activities to mitigate damage by organically linking "self-help", "mutual aid", and "public assistance".



Team in charge	During normal times	During disaster event
Info gathering Liaison group	Plan projects related to disaster prevention. (Dissemination of disaster prevention knowledge and raising awareness)	Encourage members to prevent disasters. Collect info on disasters.
Firefighting team	Promote the installation of initial fire extinguishing equipment in each home. Conduct initial firefighting drills and establish an organizational firefighting system.	Fire warning. Initial firefighting by the entire team.
Ambulance rescue team	Procure and manage disaster prevention materials and equipment and stockpiles as supplies for the neighborhood association. Conduct rescue and first aid drills, and plan a rescue system for those who are unable to act on their own in the event of a disaster, especially the elderly.	Rescue and aid for the injured. Distribution of disaster prevention materials and equipment. Rescue of people in need of assistance during disasters.
Evacuation guidance team	Confirm and inform members of safe evacuation routes and evacuation sites. Inspect dangerous areas in the town. Conduct evacuation drills.	Evacuation guidance. Confirmation of the safety of evacuation routes. Confirmation of evacuation households and personnel.
Food & water supply team	Encourage each household to prepare emergency rations. Conduct food and water supply drills.	Compilation and distribution of food and water supplies.

Toward further understanding Integrated Disaster Prevention Hazard Maps

Explanation of symbols and legends

Evacuation Areas / Evacuation Shelter



Tsunami Evacuation Area Area for temporary evacuation to protect lives from tsunamis.



Tsunami Evacuation Building Building for temporary evacuation to protect lives from tsunamis, in case failing to evacuate to higher ground.



Evacuation Area Area for temporary evacuation to protect yourself from earthquake/flooding/landslides

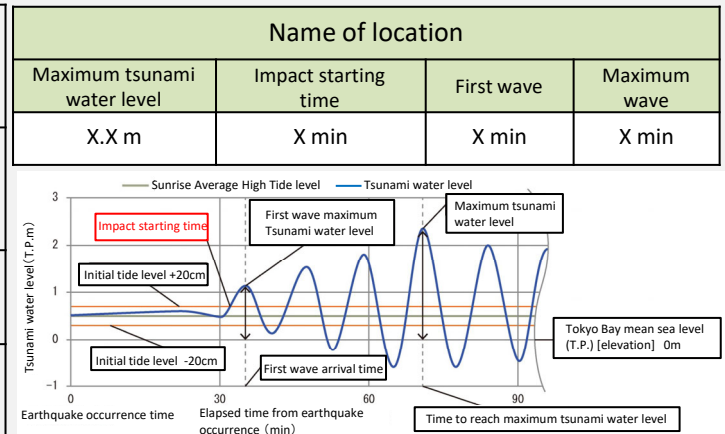


Evacuation Shelter A place that accommodates evacuees in the case of prolonged evacuation.

Tsunami water level and arrival time

Maximum tsunami water level	The maximum tsunami water level in the coastal area (seaward of the coastline), which is the height above the mean sea level of Tokyo Bay.
Impact starting time	The time it takes for the water level to change by more than ± 20 cm relative to the initial tide level, which is the lower limit of the tsunami warning.
First wave	This is the time from the occurrence of the earthquake to the arrival of the maximum tsunami water level of the first wave.
Maximum wave	This is the time from the occurrence of the earthquake to the maximum tsunami water level.

«Assumed tsunami water level and arrival time at each location»



Disaster Categories and Criteria of Area at Risk

Categories	Information shown in the map	Assumption etc.
① Earthquake	<ul style="list-style-type: none"> Assumed seismic intensity Liquefaction Hazard Level 	<ul style="list-style-type: none"> Simulation results based on the Japan Trench model, which has the greatest impact among the Japan Trench, the Great Earthquake along the Chishima Trench, and the Great East Japan Earthquake, are set.
② tsunamis	<ul style="list-style-type: none"> Estimated inundation area by assumed tsunami Actual inundation area by Great East Japan Earthquake tsunamis 	<ul style="list-style-type: none"> Setting based on the maximum values obtained by superimposing the simulation results of the Great Earthquake along the Japan Trench and Chishima Trench, the Great East Japan Earthquake, the Meiji Sanriku Earthquake, and the Showa Sanriku Earthquake
③ flooding	<ul style="list-style-type: none"> Estimated inundation area and depth when target rivers are flooded. Actual inundation area by Typhoon 10 in 2016 Inundation area assumed when the reservoir collapses 	<ul style="list-style-type: none"> Assumed maximum rainfall (heavy rain about once in 1,000 years) Set the maximum flood depth assumed when the river overflows by simulation [Target rivers] Hei River, Tsugaru Ishi River, Nagasawa River, Kariya River Set the maximum inundation area assumed when the river overflows due to design scale rainfall (heavy rain of about once in 100 years) by simulation [Target river] Hei River, Tsugaru Ishi River, Nagasawa River, Kariya River
④ Sediment Disasters	<ul style="list-style-type: none"> Area at risk of mudslide, landslip, or landslide Large-scale embankment land Avalanche hazard areas 	<ul style="list-style-type: none"> Estimated by field survey, topographic map, etc.

※(1) Seismic intensity floor and liquefaction hazard and (2) tsunami inundation area are based on **A** the "Iwate Prefecture Earthquake and Tsunami Damage Assumption Survey Report (September 2022)". The actual tsunami inundation area at the time of the Great East Japan Earthquake is based on data from the "Detailed Tsunami Map of the Great East Japan Earthquake (Japan Institute of Geo-informatics)".

The above "Iwate Prefecture Earthquake and Tsunami Damage Assumption Study Report (September 2022)" provides results based on various assumed earthquakes and calculation models. The results based on various assumed earthquakes and calculation models are available on the Iwate Prefecture website.

A <https://www.pref.iwate.jp/kurashikankyou/anzenshin/bosai/jishintsunami/1059428.html>

※(3) Flood information is based on the results of Iwate Prefecture's inundation forecast simulation. See page 73 for details.

※(4) The areas where landslide hazards are expected to occur are prepared and published by Iwate Prefecture. Location Map of Landslide Disaster Precaution Areas, etc. **B** or **C** This map is based on the "Iwate Digital Map".

Let's check the Iwate Prefecture's website for more information.

B <https://www.pref.iwate.jp/kendozukuri/kasensabou/doshasaigai/1044566/index.html>

C https://www.sonicweb-asp.jp/iwate/map#layers=ROADMAP%2Cth_68&theme=th_68



Assumption of "maximum expected scale" and "planned scale" of inundation

● Difference between "assumed maximum scale" and "planned scale"

In recent years, flood damage exceeding the current levee and other facility plans has been occurring frequently, and the Flood Prevention Law was revised in 2015 to expand and publicize the areas for the largest possible flooding. This is the "assumed maximum scale" flood inundation area.

The scale of rainfall for the "assumed maximum scale" is assumed to be about once in 1,000 years. It is not periodic rain that occurs once every 1,000 years, but rain that has a probability of occurring in one year of 1/1,000 (0.1%) or less. Although the probability of annual occurrence is small, it indicates that it is a large-scale rainfall.

On the other hand, the rainfall scale of the "planned scale" announced in the Miyako City Comprehensive Disaster Prevention Hazard Map is assumed to be about once every 10 to 100 years.

● Areas where houses may collapse or be swept away

In addition to the "maximum flooding area", Iwate Prefecture also announces the "flooding area for house collapse (riverbank erosion)", which is an area where riverbanks are expected to be cut away and land washed away, and the "flooding area for house collapse (flooding flow)", which is an area where houses are expected to collapse and be washed away when flooding occurs.

※The above is published for each river on the Iwate Prefecture website, so let's check it out.

<https://www.pref.iwate.jp/kendozukuri/kasensabou/kasen/bousai/1009822/index.html>



Safety Confirmation

In time of large-scale disasters, it is often difficult to make phone calls to the affected areas. In such cases, Disaster Emergency Message Dial and Disaster Message Board are available to confirm the safety. You can practice using either of the services on designated days, so please take your time to try.

 <p>Disaster Emergency Message Dial</p> <p>Tel. 171</p>	 <p>web171 Disaster Message Board</p> <p>https://www.web171.jp/</p> 
 <p>NTT docomo Disaster Message Board</p> <p>http://dengon.docomo.ne.jp/top.cgi</p> 	 <p>a u Disaster Message Board</p> <p>http://dengon.ezweb.ne.jp/</p> 
 <p>Softbank Disaster Message Board</p> <p>http://dengon.softbank.ne.jp/</p> 	 <p>Y!mobile Disaster Message Board</p> <p>http://dengon.ymobile.jp/info/</p> 

Pass Down the Story and Act

「Do not build any homes below this point.」

This clause is a part of writing on a stone monument, shown in the right picture, entitled "Mega Tsunami Memorial" in Omoeaneyoshi district. Since a number of residents were killed by Meiji Sanriku Earthquake Tsunami and Showa Sanriku Earthquake Tsunami in this district, the survived people erected this stone at tsunami reaching point. Like these predecessors, we must pass down our dreadful suffering experience and learned lessons to the next generations, and build resilient cities and communities. It is crucial for all of us that we continue working to be able to act for disaster prevention.



Mega Tsunami Memorial (Omoeaneyoshi district)

Miyako City has established the "Criteria for Issuing Evacuation Information and Disaster Action Plans".

https://www.city.miyako.iwate.jp/kikikanri/hinankankoku_hatureikihyun_saigaiikoudoukeikaku1.html



Use this as a reference to create your own timeline.

Let's create My Timeline

Approximate time (※)	Information by the government	Until a disaster occurs	Preparing my home	Preparation examples
<p>3 days ago</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>2 days ago</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>1 day ago</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>Half a day ago</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>5 hours ago</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>3 hours ago</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>Disaster Occurrence</p>	<p>Tropical Cyclone Information</p> <p>Heavy rain notice</p> <p>Flood Advisory</p> <p>Heavy rain warning</p> <p>Flood warning</p> <p>Reached water level for flood fighting standby.</p> <p>Reached the advisory water level</p> <p>Storm warning</p> <p>Reached the evacuation warning water level</p> <p>【Alert level 3】 Evacuation of the Elderly, Etc.</p> <p>Reached the hazardous water level</p> <p>Announcement of landslide alert information</p> <p>【Alert level 4】 Evacuation Instruction</p> <p>【Alert level 5】 Emergency Safety Measures</p>	<p>Typhoon occurrence</p> <p>Wind and rain gradually intensifies</p> <p>When the water level rises from the mountains, water springs up from the cliffs and the water in the streams becomes muddy.</p> <p>Heavy rainfall causes more and more water to flow into the riverbed.</p> <p>mountains are about to collapse</p> <p>The river is about to overflow</p> <p>River flooded</p> <p>Mountain crumbles</p>	<p>Preparing my home</p>	<p>• Check the typhoon's path</p> <p>• go pick up medicine for a week</p> <p>• Go buy necessities</p> <p>• Preventing house items from being blown away by the wind</p> <p>• Check rain and river conditions on TV and internet</p> <p>• Preparing emergency goods</p> <p>• Charge mobile phone</p> <p>• Reconfirming evacuation site at home on the disaster prevention map</p> <p>• Investigate river water level and the risk of sediment disasters</p> <p>• Check road closure info</p> <p>• Change into clothes that are easy to evacuate</p> <p>• Start moving to the evacuation site at home</p> <p>• Call out to neighbors</p> <p>• Evacuate everyone from dangerous places</p> <p>• Ensure safety immediately</p>

Time to finish what needs to be done before the wind and rain become stronger.

Time to start evacuation actions according to the time required for evacuation while monitoring water levels and other conditions

When you should ensure your personal safety

※Approximate times may vary widely depending on actual conditions.

Emergency Items

Prepare an emergency bag beforehand to be prepared for emergency. You should keep emergency stockpile items to live without relying anyone for around 3 days. Discuss with your family on meeting point and contact information and create an emergency contact card etc.



Let's check them seasonally, such as replacing them regularly for summer and winter.

Emergency food and water

- emergency food
- water



Clothes

- underwear
- towel
- blanket
- gloves
- winter closing



Valuables

- ID card such as driver's license or health insurance card
- Cash (coins)
- bankbook
- emergency contact information
- My number card



Tools

- portable radio
- mobile phone
- flashlight (batteries)
 - Head lamp
- candles, lighter, match
- tissue paper
- knife, can opener
- rope
- work gloves
- plastic bags
- toilet paper
- portable body warmer



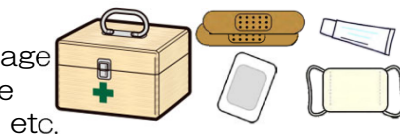
Safety goods and first aid goods

- protective hood
- sanitary napkins
- medicine
- Medication book



- first aid goods (should be kept in a container etc.)

- disinfectant
- ointment
- compress
- digestive medicine
- eye-drop
- masks
- bandage
- gauze



Major Contacts in Disasters

City Government, General Office, and Branch Office

[area code 0193]

Miyako City Government	62-2111
Taro General Office	87-2111
Niisato General Office	72-2111
Kawai General Office	76-2111
Sakiyama Branch Office	62-6036
Tsugaruishi Branch Office	67-2111
Omoe Branch Office	68-2111
Hanawa Branch Office	69-2111
Oguni Branch Office	78-2111
Kadoma Branch Office	77-2111
Kawauchi Branch Office	75-2111

Police Stations, Fire Stations, Emergency Services, Hospitals, and Utilities

[area code 0193]

Miyako Police Station	64-0110	Prefectural Miyako Hospital	62-4011
Miyako Fire Station	62-5533	Sanriku Hospital	62-7021
(Taro Branch)	87-2545	Miyako First Hospital	62-3737
(Niisato Branch)	72-2011	Miyako Yamaguchi Hospital	62-3945
(Kawai Branch)	76-2110	Miyako City Dept. of Water and Wastewater Service	63-1115
		NTT East (Troubleshooting Contact)	113
		Tohoku-Electric Power Co. (Inquiries about power outages and emergencies)	0120-175-366

