



Kota Town Earthquake Disaster Prevention Hazard Map

Discuss evacuation sites and contact information with your family in case you are separated!

A place for my family to evacuate to	A place to evacuate to from work or school
Evacuation site	Evacuation site
Contact information	Contact information

Family safety confirmation means (e.g. Disaster Emergency Message Dial, disaster emergency message board, SNS, Internet mail)

Confirmation means

Remember NTT's Disaster Emergency Message Dial 171 as "Wasurete- Inai (171) disaster message" in Japanese.

You can dial "171" and record a message according to the usage guidance.

(Dial the phone number of a person living in the disaster area, such as their land-line phone, from the area code onward)

When recording a message For recording Area code Enter a land-line phone number 171 0564 0000-XXXX

When playing a message For playing Area code Enter a land-line phone number 171 0564 0000-XXXX

In the event of a disaster, you can also use the "disaster emergency message board" from your cell-phone. (Contact your carrier for details.)

In addition, decide the safety confirmation means such as your personal SNS and Internet mail.

Emergency Evacuation Items and Stockpile

Prepare "emergency evacuation items" and "stockpiles" separately!

After the Great East Japan Earthquake, relief supplies were in short supply even after two weeks. From this lesson, it is important to take daily measures such as increasing the stock of food that can be stored for a long time and replenishing only what you eat or use.

Check it out

Emergency evacuation items

- Flashlight
- Tissues
- Towel
- Antiseptic wipes
- Mask
- Charger
- Cash
- Items to stop bleeding
- Lighter
- Knife
- Underwear
- Work gloves
- Radio
- Food
- Helmet
- Batteries
- Copy of health insurance card
- Glasses
- Contact lenses
- Sanitary items
- Pocket warmers
- Medicine
- Aluminum sheet

Babies and infants

- Baby Food
- Infant formula
- Cooking utensils
- Disinfectant supplies
- Disposable diapers
- Wet wipes

Elderly people

- Contact information for the attending physician
- Chronic disease memo
- Drugs for chronic diseases

Pets

- Leash
- Cage
- Toilet for pets
- Pet food

People with illnesses

- Contact information for the attending physician
- Chronic disease memo
- Drugs for chronic diseases

Stockpile

- Water (three liters per person per day)
- Portable gas stove
- Gas cartridge
- Can opener
- Blankets
- Candles
- Food (canned food, pre-packaged food, sweets)
- Portable toilet
- Paper toothpaste
- Wet towels
- Antimicrobial agent and refresher
- First-aid kit
- Cleaning tools

Prepare stockpiles for seven days!

Appropriate weight of emergency evacuation items
Male: 15 kg Female: 10 kg

References: "Disaster prevention and mitigation L (Preparation) Guide -Home Edition-" Published by Aichi Prefecture and Nagoya University in January 2013

Q.3 The correct answer is x!

Prepare "emergency evacuation items" and "stockpiles" separately! By separately preparing the minimum necessary "emergency evacuation items" to be taken out when evacuating and a "stockpile" for living at home, you can evacuate smoothly without panic when an earthquake occurs.

Seismic intensity

How is the seismic intensity determined?

The seismic intensity announced by the Japan Meteorological Agency is the intensity of the shaking of the earthquake observed with a seismic intensity meter. It is not determined based on the phenomenon that occurred or the state of damage. The seismic intensity to be announced is the seismic intensity of "the place where the seismic intensity meter is located," therefore the seismic intensity of different places within Kota Town may differ.

Seismic intensity and situation such as shaking

Seismic intensity of 0 Imperceptible to people, but recorded by seismometers.	Seismic intensity of 1 Felt slightly by some people keeping quiet in buildings.	Seismic intensity of 2 Felt by many people keeping quiet in buildings.	Seismic intensity of 3 Felt by most people in buildings.
Seismic intensity of 4 Most people are startled. Hanging objects such as lamps swing significantly. Unstable ornaments may fall.	Seismic intensity of 5-lower Many people are frightened and feel the need to hold onto something stable. Dishes in cupboards and items on bookshelves may fall. Unsecured furniture may topple over, and unstable items may fall over.	Seismic intensity of 5-upper Difficult to walk unless you hold onto something stable. Many items such as dishes in cupboards and items on bookshelves will fall off. Unsecured furniture may topple over. Unreinforced block walls may collapse.	Seismic intensity of 6-lower Resistance to earthquakes is high. It is difficult to remain standing. Most unsecured furniture moves, and some of it may topple over. Doors may become wedged shut. Wall tiles and windows may sustain damage and fall. For wooden buildings with low earthquake resistance, roof tiles may fall or the building may tilt. Some may fall down.
Seismic intensity of 6-upper Resistance to earthquakes is low. You cannot move without crawling. You may be sent flying. Most unsecured furniture moves, and is more likely to topple over. Many wooden buildings with low earthquake resistance tilt or collapse. Large ground cracks, large-scale landslides, and collapse of mountainsides may occur.	Seismic intensity of 7 Resistance to earthquakes is high. Wooden buildings with low earthquake resistance are more likely to tilt or fall. In rare cases, even wooden buildings with high earthquake resistance may tilt. Many reinforced concrete buildings with low earthquake resistance may collapse.	Seismic intensity of 8-lower Resistance to earthquakes is low. It is difficult to remain standing. Most unsecured furniture moves, and is more likely to topple over. Many wooden buildings with low earthquake resistance tilt or collapse. Large ground cracks, large-scale landslides, and collapse of mountainsides may occur.	Seismic intensity of 8-upper Resistance to earthquakes is low. It is difficult to remain standing. Most unsecured furniture moves, and is more likely to topple over. Many wooden buildings with low earthquake resistance tilt or collapse. Large ground cracks, large-scale landslides, and collapse of mountainsides may occur.

References: Japan Meteorological Agency "Seismic Intensity and Situation Such as Shaking (overview)"



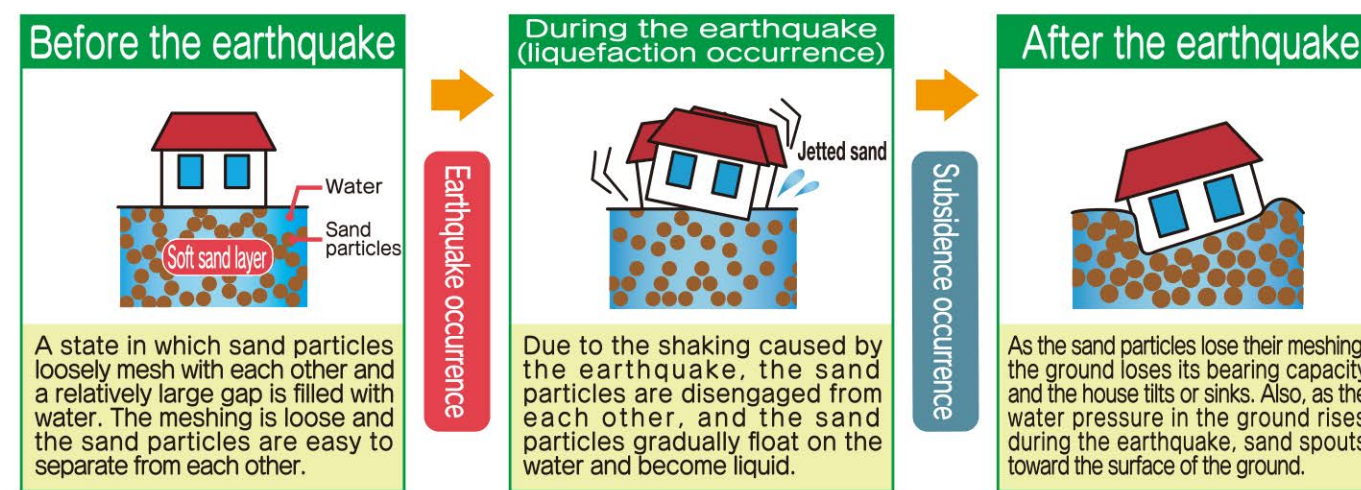
Q.1 The correct answer is ① 10 levels!

Seismic intensity is an index that comprehensively indicates the strength of shaking caused by an earthquake, and is used as a criteria for disaster prevention measures. The above commentary table is a document that shows guidelines for what kind of phenomena or damage will occur in the vicinity when a certain seismic intensity is observed.

Liquefaction

How does liquefaction occur in the first place?

Liquefaction occurrence mechanism (schematic) Soft sand layer



Alluvial ground made of sediment carried and accumulated by river flooding, tsunami at the time of earthquakes, etc. and ground that has been reclaimed from ponds, swamps, wet lowlands, river traces, beaches, etc. may become a liquid state when shaken by a large earthquake, as it is not sufficiently solidified. This phenomenon is called "liquefaction." At this time, in addition to the jetted sand phenomenon in which sand is jetted to the ground together with groundwater from between roads and buildings and cracks in the road surface, a fluidization phenomenon (lateral flow) in which the ground flows horizontally occurs. The ground subsides, and structures such as buildings not only sink or incline (tilt) as they lose support, but also manholes buried in the ground rise, lifelines such as water, sewage, and gas pipes may be damaged, and liquefied earth and sand may enter pipes. Accordingly, the toilet and water services will not be available for several months, and you will not be able to lead your daily life. Also, urban infrastructure such as roads, bridges, and river embankments will be severely damaged, paralyzing urban functions.

Check the hazard map and ground formation of your area.

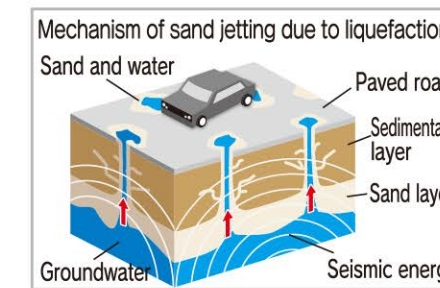
If you live in a place that is prone to liquefaction, take measures such as improving the ground.



State of liquefaction



State of liquefaction



Mechanism of sand jetting due to liquefaction



Q.2 The correct answer is ① liquefaction!

As you can see from the map on the front, you can see that there is a danger of liquefaction in areas such as where there used to be ponds in Kota Town.

Earthquake Resistance and Furniture Fall Prevention

Is the earthquake resistance of your home okay?

90% of the death toll from the Great Hanshin-Awaji Earthquake were due to the collapse of houses and buildings. Since then, earthquake resistance of houses etc. have been promoted nationwide. Regularly diagnose and take action to see if your home has sufficient earthquake resistance to withstand the assumed seismic intensity.

Seismic Diagnosis

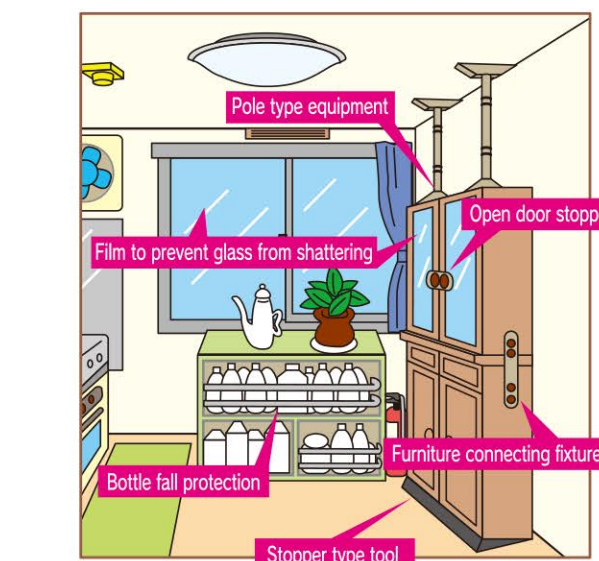
The Building Standards Act was amended in June 1981, and seismic standards for buildings have been strengthened. Buildings that started construction before that may collapse due to a large-scale earthquake, so it is necessary to perform seismic diagnosis, rebuild them as necessary, and retrofit them to make them earthquake resistant.

In Kota Town, free seismic diagnosis is carried out for buildings constructed with the traditional wooden construction method whose construction began before May 31, 1981. As a result, we are subsidizing part of the earthquake-resistant repair costs for wooden houses that have been diagnosed as "collapsed possible." Please see the Kota Town website for details.



Kota Town website
Subsidy for seismic retrofitting work
Reference URL: <http://www.town.kota.lg.jp/index.cfm/22.23095.241.233.html>

Furniture Fall Prevention



It is important to protect your lives by reviewing and fixing the arrangement of furniture so that it will not interfere with your evacuation in case of emergency!

- Do not block your escape route
- As far as possible, do not put furniture in bedrooms.
- Take measures to prevent windows and glass from shattering.
- Fix the cupboard door so that the dishes etc. do not pop out.
- For furniture with casters, take measures to prevent movement.

Various types of fixing devices are also sold at home improvement stores! Choose appropriate devices according to your home.

References: "Disaster prevention and mitigation L (Preparation) Guide -Home Edition-" Published by Aichi Prefecture and Nagoya University in January 2013



Initial action

At home ... Protect yourself in places with relatively little furniture, such as corridors. If you do not have a safe place nearby, go under a sturdy desk and hold its legs firmly. If you do not have a place to hide, protect your head with a cushion. To ensure safety, take measures to prevent furniture from tipping over and glass from scattering in advance.	In the city ... Be careful of falling objects, block walls and vending machines that are likely to tip over. Traffic lights may be stopped, so be careful of the cars passing by. Get inside a safe building. Hanging electric wires are also dangerous. In the underground mall, although there is a risk of people rushing to the exit and panic, as exits are set up every 60 m, make a calm judgment and find the nearest uncrowded exit.	In a car ... Slow down gently while signaling with your hazard lights and pull over on the left-hand side of the road. Move your vehicle if space is available to make it easier for emergency vehicles to pass. Get information on the car radio, etc., and when you leave the car, leave the key in the ignition and take the automobile inspection certificate with you. On the highway, be careful of other cars and evacuate from emergency exits and interchanges.
On the train ... Hold on to the handrail and strap to prevent you from falling when the train stops. If on a platform, move to the center of the platform to prevent you from falling, and be careful of falling objects such as information boards.	In the mountains ... Squat or cling to a tree and wait until the shaking subsides to avoid slipping off cliffs or narrow trails. Go down the mountain so as not to get lost while paying attention to landslides and rockfalls.	Near the sea ... Evacuate to a high place regardless of the magnitude of the shaking. Before going out, decide where you can escape in case of emergency. Tsunami surge repeatedly, so wait in a high place until the alarm is lifted.

ShakeOut ShakeOut training is a disaster prevention drill that carries out safety actions 1-2-3 to protect yourself from earthquakes for 1 minute.	Three principles of tsunami evacuation ① Do not make assumptions Even areas that are assumed safe on hazard maps can be dangerous. ② Do your best Do not think "It's not dangerous anymore," but aim for safety depending on the situation. ③ Take the initiative to evacuate Take action on your own initiative first. Do not be misled by others.
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Q.4 The correct answer is ① Escape to a hill!

If you are near the beach or coast during an earthquake, evacuate to a high place regardless of the magnitude of the shaking. In particular, if an earthquake that causes slow swaying occurs, evacuate immediately with a strong awareness of the occurrence of a tsunami. Be aware that a tsunami may occur even if you do not feel the shaking.

Past Earthquakes

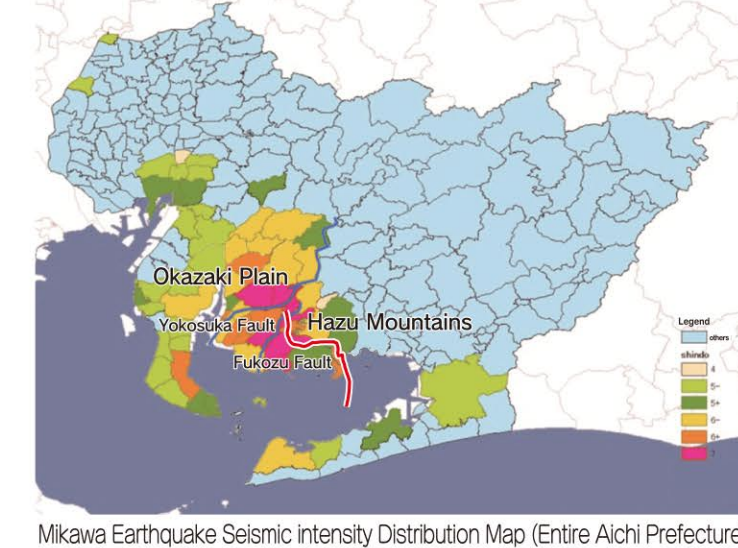
Mikawa earthquake

The Mikawa earthquake that occurred at 3:38 a.m. on January 13, 1945 was an epicentral earthquake with a magnitude of 6.8. The death toll was 2,306 and the number of houses completely destroyed was 7,221. The characteristics of the Mikawa earthquake are that it occurred approx. one month after the Tonankai earthquake, that it happened during the War, and that the number of fatalities is large compared to the number of houses completely destroyed.

It can be seen from the seismic intensity distribution that the areas with high seismic intensity are concentrated in the Okazaki Plain, which extends to the west of the fault. On the other hand, Kota and Toyosaka Villages located on the east side are hilly regions consisting of the Hazu Mountains, and it can be seen that the seismic intensity is lower than on the west side. Here, too, it can be seen that the difference in ground conditions is clearly shown in the seismic intensity evaluation.

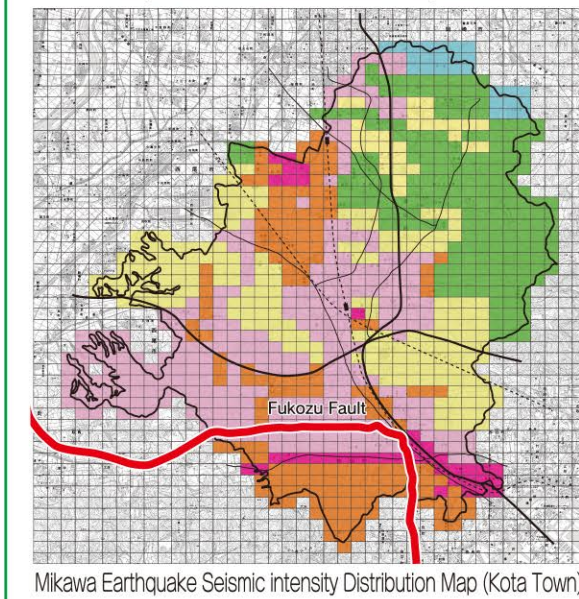


State of ground cracking Rice fields raised by the Fukuoka Fault



Mikawa Earthquake Seismic Intensity Distribution Map (Entire Aichi Prefecture)

Shake intensity distribution map of Mikawa earthquake



Mikawa Earthquake Seismic Intensity Distribution Map (Kota Town)

Legend

Fault: *Prepared based on the Aichi Prefectural Active Fault Atlas
Unit: Gal
400 Seismic intensity of 7 or above
350 to 400 Seismic intensity of 6.5 or above
300 to 350 Seismic intensity of 6 or above
250 to 300 Seismic intensity of 5.5 or above
200 to 250 Seismic intensity of 5 or above
Below 200

In the Kota Town area great damage has been confirmed, mainly in the southern part of Kota Town where the Fukuoka Fault has appeared. This map is a distribution map of the strength of shaking at that time estimated from boring surveys. The closer to red, the stronger the shaking. Which color does your area correspond to?

From this map it can be seen that not only the Fukuoka area where the fault passes, but also the southwestern part of Aichi Station, a drained land of the former Hishikake, where the ground is loose, was violently shaken.

Disaster Prevention Goods and Cooking



Things in your house to transform into disaster prevention goods! Be creative and think about various things!

Make origami tableware and eat safely with a plastic bag!

How to make origami tableware (cup shape)

Prepare two newspapers.

1 Fold one newspaper in two.

2 Fold the remaining part so that it becomes a square ①. Fold it diagonally to make a triangle ②.

3 Fold the left and right edges. Fold only one of the upper triangular parts toward you and insert it into the bag-shaped part. Fold the other one to the other side.

4 Fold another piece of newspaper into a belt, finish it into a ring that surrounds the bottom of ③, and close it by combining the ends.

Even if the water supply is restored, do not flush the toilet if the sewer is broken.

How to make a portable toilet

Stool: Fold a newspaper into a box and use it.

Urine: Cut

After use, wash it off with a plastic bottle shower so that the next person can use it cleanly.

Sorting into three

Separate paper, urine, and stool. Dispose of them later.

How to make a plastic bottle shower

Make a few holes in the lid with a pushpin.

Rinse the surface of your hands and vessels.

Let's make emergency food delicious! Cooking rice in a rice bag and hard biscuit truffles

Cooking rice in a rice bag

One go (approx. 150g) of rice can be cooked with one bag. If you put water and rice in a bag and boil it to cook the rice, the bag will swell as much as it can. One go (approx. 150g) of rice is equivalent to two lightly served bowls of rice.

Recipe
① Divide the boiled rice into two pieces in a bag.
② Cut the bag in half with scissors.
③ Put the chickpeas through it, apply miso and boil it on the fire of the gas stove to complete it!

Recipe
① Add rice and water to the lower line of the bag.
② Fold the top of the bag while removing the air.
③ Fold it in half and put a rubber band on it.
④ Boil it in a pot. The heating time is 30 mins, then steam for 10 mins to complete!

Hard biscuit truffles
Dessert with a hard biscuit

(Material for 4-5 pieces)
Hard biscuit: 5 pieces
Cocoa: 2 tsp
Water: 1 tsp
Condensed milk: 2 tsp
Sugar: to taste

Recipe
① Put the hard biscuits in a bag, wrap it in a towel and hit it with a stick.
② Crush until it becomes fine.
③ Add cocoa, water, and condensed milk and mix.
④ Form into round shapes.
⑤ Sprinkle on sugar and it is done!

References: "Disaster prevention and mitigation L (Preparation) Guide -Home Edition-" Published by Aichi Prefecture and Nagoya University in January 2013

Reference URL

Kota Town Website Disaster Prevention Map https://www.town.kota.lg.jp/index.cfm/35.0.3.12.html	Aichi Prefecture Disaster Prevention Bureau http://www.pref.aichi.jp/bousai/	Disaster prevention / mitigation site learned from historical earthquake records http://www.pref.aichi.jp/bousai/densho/index.html
Disaster Management in Japan Cabinet Office Japan https://www.bousai.go.jp/	Japan Meteorological Agency http://www.jma.go.jp/jma/index.html	Ministry of Land, Infrastructure, Transport and Tourism Geospatial Information Authority of Japan disaster prevention related http://www.gsi.go.jp/bousai.html