

2024 Tokai National Higher Education and Research System Students' Guide for Natural Disaster Preparedness

Nagoya University

What is an earthquake?

An earthquake is a phenomenon in which the ground shakes violently for up to several minutes. During a severe earthquake, houses and buildings may collapse. Earthquakes occur frequently in Japan. Although earthquakes of Seismic Intensity 3 (Japanese Scale) or below occur several times a year in Nagoya City, there is no need to worry about such small earthquakes. This guide explains the precautions to be taken in case of a major earthquake of Seismic Intensity 5 or more. Such earthquakes occur approximately once every from 100 to 150 years in this region.

Are large earthquakes predicted for this region?

Nankai Trough Huge Earthquakes

In the area of the Nankai Trough along pacific coast of south-west Japan, large earthquakes have occurred approximately once a century. The latest earthquakes are the Tonankai Earthquake in 1944 and the Nankai Earthquake 1946. The government estimates that the probability of a recurrence over the next three decades is 70 to 80 percent. If the biggest earthquake occurs in this region, violent tremor of Seismic Intensity 6 to 7 and a big Tsunami wave of over 10m high will hit a large area of the south-west Japan.



Source: Database of active faults (AIST)

Earthquakes caused by inland active faults

There exist many active faults in Chubu to Kinki regions as shown in the right map. Recurrence period of earthquakes is thousand to several ten thousand years, however, once such earthquake occurs, extremely strong ground shaking is generated near the fault. Nohbi earthquake in 1891, Hyogo-ken Nanbu earthquake in 1995, Kumamoto earthquake in 2016 and Noto Peninsula earthquake in 2024 are earthquakes of this type, which caused many casualties due to collapse of houses and buildings. Strong shaking suddenly arrives prior to Earthquake Early Warning utilized in the ShakeOut drill. Even taking safety action becomes difficult due to strong shaking, therefore, pre-quake countermeasures such as securing furniture and equipment are quite essential.

What could happen during and after severe shaking?

Houses and Buildings may collapse

Older and weaker houses and buildings might collapse during strong shaking. It is advisable to live in houses that are recently built or have been reinforced.



Furniture and other items may fall over

Many people might be injured or killed by falling furniture and household items as well as flying glass fragments. Take measures to prevent furniture and elevated furnishings from toppling over or falling down.

Outbreak of fires

Fire is major hazard associated with earthquakes. Extinguish any open flames immediately and switch off the circuit breaker in your house before evacuating after an earthquake is over.

Tsunami

Tsunami can be an extremely destructive hazard for coastal areas. Tsunami originates when ocean water is displaced vertically during a large earthquake. If you are close to the coast and feel a strong earthquake or a weak but prolonged tremor, you must move to higher ground as quickly as possible.

Fill in your personal details now.
For use during drill

Evacuee safety Confirmation

Student Staff Other

Name _____

Affiliation _____

School / Graduate School / Department / major _____

Status _____ Grade _____

Student ID _____ Staff ID _____

To be filled by the University

Fill in your personal details now.
For use during disasters

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Status _____ Grade _____

Student ID _____ Staff ID _____

To be filled by the University

An earthquake strikes! Intense shaking will last few minutes Keeping yourself safe should be your first priority

Precautions

Fix the heavy and large furniture. Prevent falling and breakage of chemicals. Keep three days supply of water and food.

Safety Actions



Protect your head from falling objects. Stay away from: Large furniture and large laboratory equipment and glass objects that may shatter. Keep calm in case of a power outage.

Evacuate to Safe area

When the shaking stops, Stay Calm, support others, and accurately assess the situation.

- (1) Assess the situation in the room.
- (2) If there is a fire, work together to start controlling it as long as you can stay safe.
- (3) If anyone is injured, work together to provide first aid as long as you can stay safe.
- (4) Shut off light and power/gas lines.
- (5) Do not use elevators.

Follow instructions from the faculty members and evacuate to a safe area. (See map)

After reaching the evacuation area, please hand in the Evacuee confirmation card to the staffs of each building.

Helpful information in an emergency

Confirm your safety:

- Emergency message hotline: 171
- Dial 171 from a cell phone or public phone for the emergency message hotline.
- Registering your safety status (audio recording)
- 171+1+your phone number → leave a message to hear others' messages (audio playback)
- 171+2+the person's phone number → hear the recorded message (phone companies)
- Access the disaster message board from the company's official portal site
- Free trial on the first and fifteenth day of each month.
- If your LINE message status is "read", your safety is confirmed.

Disaster info

- Twitter: Collect disaster information, tweets from the Meteorological Agency, fire department headquarters, the municipal government, and other officials.
- Rajiru x Rajiru, radiko.jp
- Always carry an LED light, writing materials, smartphone app for online radio broadcasting, portable battery charger, etc. in your bag.

Deciding whether to return home

You may not be able to walk via your normal route due to collapsed buildings and crumbled roads. If necessary, you may have to make the decision not to go home if you live more than 10 km away.

Going home

- Do you know the distance between the university and your home?
- Do you wear shoes safe enough to walk roads scattered with wreckage and glass?
- At convenience stores with the stickers on the back, you may be able to receive tap water or toilet when you come home on foot during a disaster.



Deciding not to go home

Another option is to stay in a safe place instead of immediately going home.

When Nankai Trough Earthquake "Extraordinary Information" (臨時情報 南紀 トラフ) has been issued by Japan Meteorological Agency (JMA)

Get the correct information by yourself and check Nagoya University website for classes and university activities.

When "Storm Warning" (暴風警報 Bōfū Keihō) is issued by JMA:

- If a "Storm(Gale) Warning" for Nagoya City is issued by JMA, classes will be cancelled after the warning issuance. If the warning is subsequently lifted, classes will be held as follows:
- If the warning is lifted by 6:45 am, classes will be held as scheduled.
- If the warning is lifted by 11:00 am, afternoon classes will be held.

When "Special Weather Warning" (特別警報 Tokubetsu Keihō) is issued by JMA

Immediately follow the evacuation information provided by the local government or JMA, and protect yourself. The rules for canceling classes are the same as for the Storm Warning.

Carry At All Times

What to do in a major earthquake

Plan ahead. Prepare Now

2024version



When an earthquake early warning is issued

You have between several seconds and a few dozen seconds before the strong quake strikes.

DO NOT START RUNNING. DO NOT PANIC. Calm down and look for a safe place.



When an earthquake early warning is issued on campus

Do not panic. Protect yourself calm down. Follow instructions of the faculty members to evacuate. As soon as you are safe, report your status to others.

Go home once you get accurate information on the situation.

Immediately in case of fire, sudden illness, accident, or other emergencies.

Higashiyama Campus (in Japanese) Dial extension 052-789-2111 110, 119

Tsurumai Campus (in Japanese) Call Emergency Control Center mobile phone 052-744-2939 Dial extension 5555

Dai-ko Campus (in Japanese) mobile phone 052-719-1518 052-719-1504 052-719-1829

Also call 119 in case of fire or sudden illness

For concerns on your mental health: Dept. of Advising & Counseling Services, International Education & Exchange Center Tel: 052-788-6117

Before and During an Earthquake Disaster

When a large earthquake occurs,

The first 3 seconds

Stay Calm, protect yourself from falling objects, extinguish any flames (if possible) and open a door to provide a safe exit. Blindly rushing outside may result in unnecessary injury.

After 2-3 minutes

After the shaking subsides, evacuate from dangerous places. Turn off any heaters and stoves, stop any experiments in your laboratory, and check the safety of family members and others around you. When evacuating, be calm, watch for dangerous objects, and do not use elevators. If in class, follow the instructions of your faculty members.

After 5-10 minutes

Once evacuated to a safe place, obtain information to prevent any further danger.

After 1 hour

Assist in putting out fires and rescue people if necessary, after first ensuring your own safety. Be prepared for aftershocks.

1 day

Report your situation to your school / university / laboratory. You must find out how to make contact in case of an emergency.

1 week

You may have to live in an Emergency Shelter. Make advance arrangements for emergency food and water.

Outdoors

Stay calm and keep away from falling glass and buildings that are in danger of collapsing. Brick walls are also dangerous. Move to an open area such as a park.

In a bus or train

Follow the instructions of the staff. If you cannot understand the instructions, ask someone close to you for help.

In a elevator

Press the buttons on all floors. If you are trapped, please press the intercom etc. and notify the management center or persons inside the building. If an emergency equipment box is installed, use it to wait for rescue and recovery.

Earthquake Early Warning(緊急地震速報 : Kinkyu Jishin Sokuho)

The Earthquake Early Warning system provides advance announcement of the estimated seismic intensities and expected arrival time of principal motion. These estimations are based on prompt analysis of the focus and magnitude of the earthquake using wave form data observed by seismographs near the epicenter. The Earthquake Early Warning is aimed at mitigating earthquake-related damage by allowing countermeasures such as promptly slowing down trains, controlling elevators to avoid danger and enabling people to quickly protect themselves in various environments such as factories, offices, houses and near cliffs.

(<https://www.jma.go.jp/jma/en/Activities/eew.html>) Also, from February 1, 2023, an Earthquake Early Warning will be issued even if the estimated seismic intensity scale for long-period ground motion (https://www.data.jma.go.jp/eew/data/ltpgm_explain/about_level.html) is predicted to be 3 or higher. When an earthquake early warning is issued, do not start running and not panic, and calm down and look for a safe place.



A table crushed by fallen books



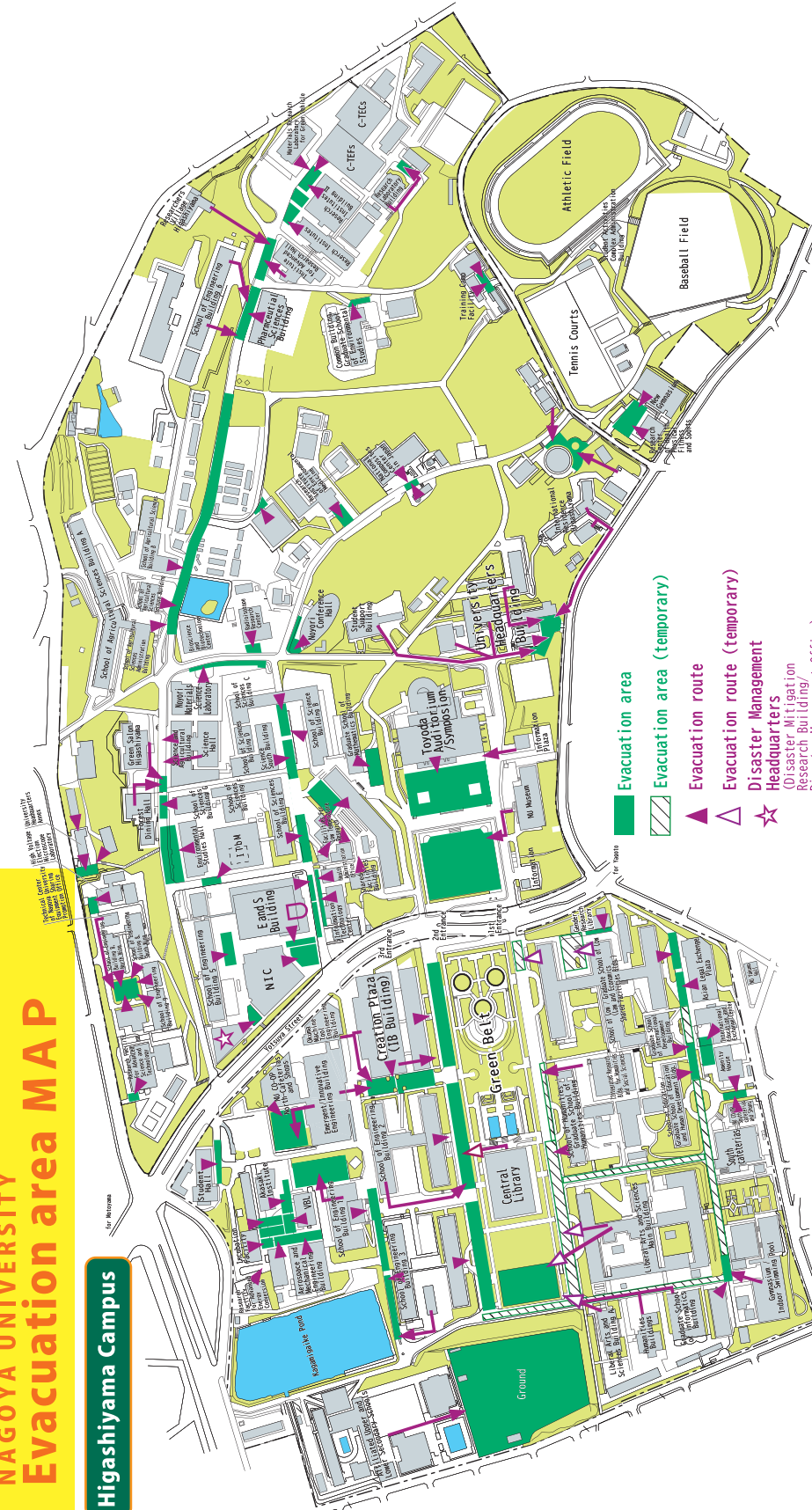
Chemistry laboratory with scattered equipment



Collapsed stone wall

NAGOYA UNIVERSITY Evacuation area MAP

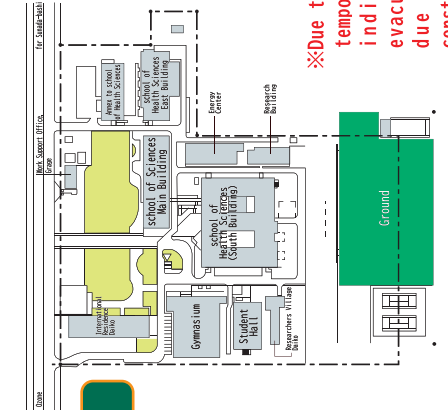
Higashiyama Campus



Tsurumai Campus

The Evacuation area is a temporary evacuation site near buildings for use during major earthquakes. Wait here for instructions to be issued by Nagoya University.

Daiko Campus



※Due to building constructions, temporary evacuation areas are indicated. Additionally, evacuation areas may change due to the start of new construction work.

Fill in your personal details now.

This card is used during the Nagoya University disaster preparedness training in fall.

Evacuee check card

For use during drill

Drill procedure

Earthquake Early Warnings
1 Take safety Action (2-3 minutes)

2 Evacuate once the earthquake tremors have ended

3 Check on evacuees (submit evacuee check card)
 Submit the card to faculty members or staffs after successfully evacuating to the primary evacuation area

Evacuee check card
 For use during disasters

Fill in your personal details now.

This card is used as a record that you evacuated safely during a major earthquake, fire, and accident.

Enter your personal information ahead of time. Tear off and submit to faculty members or staffs once you have arrived at the primary evacuation area.

Disaster prevention weather information announced by the Japan Meteorological Agency (JMA) and actions you should take

The Japan Meteorological Agency publishes disaster prevention weather information such as emergency warnings, warnings, advisories and early warning information in order to prevent and mitigate weather disasters, and calls for caution and caution in stages. Please be prepared on a daily basis so that you can make an appropriate decision on the action to be taken by referring to the timing and contents of the announcement of each information and the response of municipalities, illustrated below.

Status of Weather	Weather Warnings			Evacuation Information	Our Action	Alert Level
From a few days to about a day before heavy rain	Early Warning Information (Probability of Warnings)				Raise Your Preparedness for Weather Disasters	1
From half a day to a few hours before heavy rain	Heavy Rain Advisory Flood Advisory	Storm Surge Advisory			Confirm Your Own Evacuation Actions Reconfirm the disaster risk at home, etc. and the means of grasping evacuation information using hazard maps, etc.	2
	Advisory with a high probability of a subsequent Heavy Rain Warning	Flood Caution Information				
From a few hours to about 2 hours before heavy rain	Heavy Rain Warning Flood Warning	Advisory with a high probability of subsequent Storm Surge Warning	Flood Alert Information	Elderly Start Evacuation	Elderly People Evacuate from Dangerous Places. Even non-elderly people will check their actions, prepare for evacuation, and evacuate voluntarily as needed.	3
	Landslide Alert Information	Storm Surge Warning	Storm Surge Emergency Warning	Flood Risk Information	Evacuation Instruction	Evacuate Everyone from Dangerous Places. Complete evacuation by this stage. If a storm is expected due to a typhoon, complete evacuation before the storm.
Be sure to evacuate by alert level 4						
Heavy rain once every few decades	Heavy Rain Emergency Warning		Flood Occurrence Information	Ensuring Emergency Safety	Danger of Life Make the best move to protect your life.	5

(from JMA Homepage)

Advisory: 注意報 (Chuiho)、Warning: 警報 (Keiho)、Alert Information: 警戒情報 (Keikai Joho)、Emergency Warning: 特別警報 (Tokubetsu Keiho)

Heavy Rain: 大雨 (Oame)、Flood: 洪水 (Kozui)・はん濫 (Hanran)、Storm Surge: 高潮 (Takashio)、Landslide: 土砂災害 (dosha-saigai)

Gathering information on wind/flood disaster

Portal site (Hazard maps, etc.)

Emergencies (Nagoya City)

<https://www.city.nagoya.jp/kurashi/category/405-0-0-0-0-0-0-0-0-0-0-0-0-0.html?hl=en>

Disaster Information for River

(Ministry of Land, Infrastructure, Transport and Tourism)

<https://www.river.go.jp/index>

The Outlines of Landform Classification Map for Flood Control

(Geospatial Information Authority of Japan)

<https://www.gsi.go.jp/bousaichiri/bousaichiri41045.html>

River water level information

Road / river Monitoring Information System

(道路・河川等監視情報システム)

https://www.rdcamimage.city.nagoya.jp/public_html/

Weather information

JMA Official Website

<https://www.jma.go.jp/jma/indexe.html>

Information for Evacuation

Nagoya City Official Website

<https://www.city.nagoya.jp/>

Preparing for disasters

Making your house safer

Collapsing buildings and falling furniture result in many fatalities during a large earthquake. Prevent heavy furniture from toppling over or falling down. Furniture should be securely fastened using appropriate means.

Prepare emergency items

Assemble valuable (passport, cash), food and water, a first-aid kit, a radio, clothing, etc. Pack these items together so they are ready to take with you at any time.

Know your evacuation site and escape route

As you may need to use the Emergency Shelter in your community it is important to know if language support is available.

Learn about disasters in Japan

Natural disasters frequently occur in Japan. Check the website of the Cabinet Office, Government of Japan.

<https://www.bousai.go.jp/index-e.html>

Further Information

● Official shelter areas

Maps of shelter sites are available at your local ward office or on the Nagoya City website at

<https://www.city.nagoya.jp/bosaikikikanri/page/0000154010.html?hl=en>

● Emergency kit

Valuables : passports, cash (small change), bankbook, health insurance passbook, licenses / certificates.

Emergency food : pack 7 days worth of food (canned food, etc., 10 days if possible) and drinking water (3 liters per day).

Medical supplies : first-aid kit, medicines, etc.

Emergency equipment : portable radio, flashlight, batteries.

Clothing : long-sleeved top, rain gear, underwear, blanket, sleeping bag, spare glasses, gloves, etc.

Other necessary items for babies, elders, sick persons and those who need constant care.

● Confirm how to contact in an emergency

In the event of a major disaster, it is very important to get in touch with family, friends and the university.

It is very difficult to connect by ordinary phones and mobile phones (voice). In that case, use the NTT Disaster Emergency Message Dial 171 or the Mobile phone disaster message board service of your mobile phone vendor.

Use the Safety Confirmation System (ANPIC) to contact the university (ref. P8).

● NTT Disaster Emergency Message Dial (171) and Disaster emergency message board (web171)

This service is available when earthquake and other natural disasters occur. Information on using this service is provided at

<https://www.ntt-west.co.jp/dengon/english/> or <https://www.ntt-west.co.jp/dengon/web171/english/>

● Mobile phone disaster message board service

This service enables users in the disaster area to register messages via the network access functions of their mobile phones.

Message boards in English (Instructions are also available.):

DoCoMo : https://www.nttdocomo.co.jp/english/info/disaster/disaster_board/

au : <https://www.au.com/english/mobile/anti-disaster/saigai-dengon/sp-usage/>

SoftBank : <https://www.softbank.jp/en/mobile/service/dengon/>

● Contact

Nagoya University Disaster Management Office, 052-788-6040, 2nd floor Disaster Mitigation Research Building.

<https://www.saigai.nagoya-u.ac.jp/> (Japanese version only)

Nagoya University Safety Confirmation System (ANPIC)

The Nagoya University Safety Confirmation System (ANPIC) is an important tool for confirming the safety of students and staffs after disasters. When an earthquake with a seismic intensity of lower 5 or higher occurs in Aichi Prefecture, ANPIC will automatically send you a safety confirmation email to you. When you receive the safety confirmation email, please access the URL in the email (https://anpic*jecc.jp/*****) and report your safety status. Although it is necessary to report your safety as soon as possible, do so at least after you have ensured safety, such as by evacuation. Since we do not know when and where an earthquake will occur, it is important to be able to receive safety confirmation emails anytime, anywhere, such as on a smartphone.

The flow of your safety status reports is shown below.



For more information

Please refer to the manual or NU portal:

<https://portal.nagoya-u.ac.jp/app/group/faculty/business/disaster-prevention> (Japanese version only).

Evacuation due to flooding

Put on athletic shoes

Boots become difficult to walk when water gets inside, so wear comfortable lace shoes. Keep your hands free by carrying the emergency carry-out bag on your back. In principle, it is desirable not to evacuate once inundation begins.

If the inundation depth is over your knee level,

Evacuation is dangerous, so do not overdo it and evacuate to a safer building in the vicinity.

Contact with family, friends and university office for safety confirmation

Contact each other by a predetermined method. Use the safety confirmation system (ANPIC) to inform the university of your place and safety condition.

Keep in mind false rumors

If you are off campus, follow the instructions of the local government, fire department, police agency, etc. and collect information from the radio, TV, public relations vehicle, etc.

Confirmation of evacuation place and route

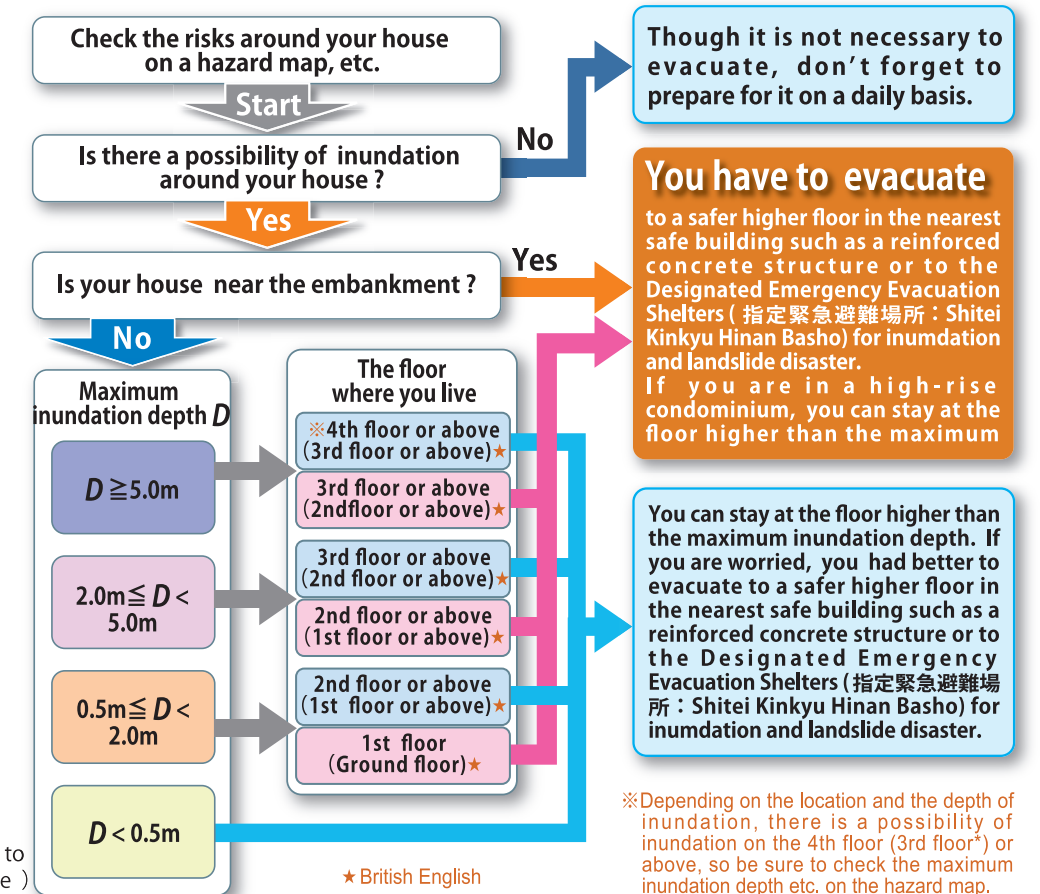
Primary evacuation areas and evacuation routes near each building have been specified. Check in advance so that you can evacuate smoothly. Also, do not store goods near exits and passageways.

Help each other in the neighborhood

Encourage your neighbors to evacuate, and if they are sick or have difficulty walking, carry them on your back and evacuate.

Evacuation guideline

If heavy rains are likely to occur in areas at risk of inundation, check the flow chart on the right and take action to ensure safety yourself before floods occur.



(Modified with reference to Nagoya City's Homepage)

University classes and exams at the time of weather warning information

At Nagoya University, if various emergency warnings or storm warnings are issued at the place where classes and regular examinations are held, the classes that start after the announcement will be canceled (except for online lessons using ICT, etc.). For details, please check the Nagoya University portal site.

