# Protect Yourself from Flood (



Yourself from Landslide Disasters

Weather information from the meteorological observatory is issued by the city/town. As a precaution, we ask our city's residents to check the weather information on TV/radio on a regular basis.

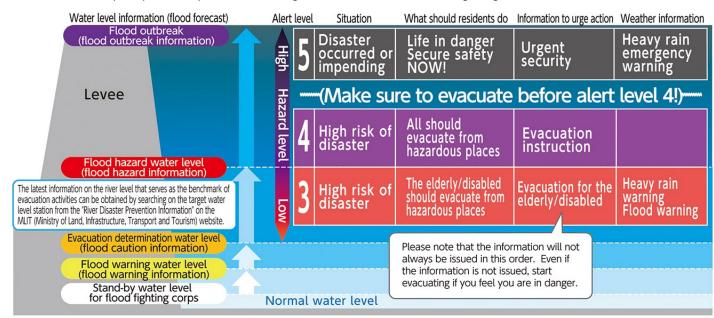
# How and How Heavy the Rain Falls

You can figure out the approximate rainfall by observation. Be aware of the correlation between how and how heavy the rain falls, so that you can determine the timing of evacuation before it becomes dangerous.

| 100                                   | Heavyish rain 10~20mm                                       | Heavy rain 20~30mm                         | Hard rain 30~50mm  | Very hard rain 50~80mm  | Driving rain 80mm or more                     |
|---------------------------------------|---|--|--|---|---|
| How the rain falls<br>1-hour rainfall |   |  |  |   |   |
| Personal impressions                  | Raining in torrents   | Downpouring rain                           | Bucketing down   | Raining in torrents (roaring rain continues)                  | Suffocating sensation of pressure; horrifying |
| Effects on people                     | Wet feet because of splashes back from ground surfaces      | You get wet even with your umbrella        |  | Umbrellas make no use at all                                  |   |
| Indoors<br>(Wooden houses)            | Voices not audible well enough due to the sound of the rain | About half of those in bed notice the rain |  |   |   |
| Outdoor outlook                       | Puddles all over the place                                  |  | Roads turn into rivers   | The splash whites out the surroundings and obscure visibility |   |
| In the car                            | Very little effect  | Making the wiper fast does not really help | When driving the highway, water films form between the tires and the road surface and the brake doesn't work | Driving is dangerous  |   |

# Correlations between types of evacuation information / evacuation activity / water level /flood forecast

When the river water level goes up and the risk of flood becomes higher, the national government, the prefecture, and the meteorological observatory that manage the river issue a joint announcement on the water level and disaster prevention information. With the information as a benchmark, the city comprehensively decides the raining situation and issue information regarding evacuation, such as evacuation instruction.



# Things to keep in mind when you evacuate

# Walkable depths of water: Male 70cm / Female 50cm

The walkable depths of water are up to 70cm for male and 50cm for female. If the water is up to your waist, wait for the rescue at a high place.

# Comfortable outfit / evacuation in a group of two or more

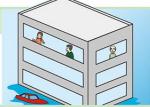
When you evacuate, wear a comfortable outfit and try moving in a group of two or more. Do not wear sandals. Wear comfortable athletic shoes.

# It is dangerous under water

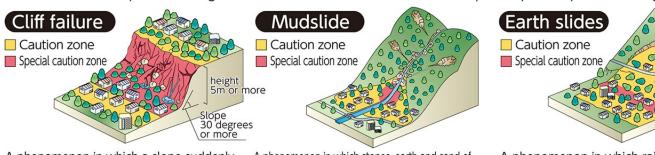
You'll never know what danger is hidden under water. Use a long stick as a cane and check your safety as you walk.

### In case you fail to escape

Evacuate to the 2nd floor or higher of a robust building nearby and wait for the rescue.



Landslide disasters refer to mudslides, collapses of rapid slopes (cliff failure), and earth slides. They occur in places with steep mountains, cliffs, and mountain streams. Most landslide disasters are attributed to long rains or earthquakes and occur suddenly. Especially when there is long or heavy rain, a massive amount of water seeps into the ground; the more the water is, the looser the slope soil becomes and it is more likely to cause disasters. Therefore, be aware beforehand of hazardous areas and when heavy rain occurs, gather weather information, and evacuate early when you feel you are in danger.



A phenomenon in which a slope suddenly collapses due to rain, snow runoff, or an earthquake.

#### Beware of these precursors! ••••

- Water springs forth from the cliff
- Pebbles are falling down from the cliff
- ◆ The earth is rumbling
- Cracks are seen on the cliff

A phenomenon in which stones, earth and sand of the mountains and rivers get together with water due to heavy rain etc. and make an intense stream.

### Beware of these precursors! ••••

- The mountain is rumbling
- · River water suddenly gets muddy and driftwood
- River water level lowers although rain keeps falling

A phenomenon in which rain and snow

#### runoff seep into the underground and cause intermittent slope slides.

# Beware of these precursors! ••••

- Mountain runnoff and well water gets muddy
- Cracks are seen on the ground surface
- Water shoots out from the slope

#### Landslide disaster caution zone (yellow zone)

A caution zone refers to the area of a land where risks to harm the residents' lives or bodies are recognized at times of landslide disaster.

#### Landslide disaster special caution zone (red zone)

A special caution zone refers to the area within the caution zone where risks to damage the buildings and harm the residents' lives or bodies are recognized at times of landslide disaster. In such a zone, certain developments are restricted and building construction restriction regulations apply.

\*Act on Promotion of Landslide Disaster Prevention Measures in Landslide Disaster Caution Areas, etc.

# Landslide alert information

"Landslide alert information" is disaster prevention information issued jointly by the prefecture and the meteorological observatory at times when risks of landslide disasters become higher due to heavy rain, so that it helps the city decide when to issue an evacuation instruction or the citizens make voluntary evacuation. However, as landslide disasters are highly influenced by the geology, geography, and the conditions of groundwater, it is impossible to identify the detailed information of its outbreak. Not to mention when the landslide alert information is issued but also when it has been, pay attention to the conditions of the slope. When you notice a precursor, evacuate to a safer place immediately.

# Heavy rain advisory

A situation with risks of disaster caused by heavy rain

# Heavy rain warning

A situation with risks of severe disaster caused by heavy rain

If heavy rain still continues...

#### Landslide alert information

Issued jointly by the prefecture and the meteorological observatory at times when risks of landslide disasters become higher due to heavy rain

# ◆ Things to keep in mind when you evacuate ◆

### Check in advance first!

In order to evacuate from a landslide disaster, it is important to check hazardous places in advance and know about the precursory phenomenon of the disaster. Use the hazard map to check them out.

#### Beware of where to sleep!

Landslide disasters may happen while you're sleeping. Be prepared on a regular basis by sleeping at higher floors such as the 2nd floor, and in rooms far from the mountain side.



# Escape vertically!

When you notice the precursor phenomenon of a cliff failure, escape as far as you can from the slope. If it's a mudslide, escape vertically from the direction the earth and sand are flowing.

In case of a landslide disaster (especially mudslide), there is danger of the entire house collapsing, being washed away, or get buried, even if you secure indoor safety. Start evacuating the building early.

\* Securement of indoor safety (vertical evacuation): An act of evacuation to move to the safest place possible, such as 2nd or higher floors of the house and in rooms far from the mountain side.

\* Building evacuation (horizontal evacuation): An act of evacuation to move from your home to an evacuation center, a safer place (public facilities, friend's or relative's home, etc.), a robust building nearby, etc.