



Cuyahoga County
Together We Thrive

Office of Emergency Management

At-A-Glance Landslides & Debris Flow

In a landslide, masses of rock, earth or debris move down a slope. Debris and mud flows are rivers of rock, earth, and other debris saturated with water. They develop when water rapidly accumulates in the ground, during heavy rainfall or rapid snowmelt, changing the earth into a flowing river of mud or "slurry." They can flow rapidly, striking with little or no warning at avalanche speeds. They also can travel several miles from their source, growing in size as they pick up trees, boulders, cars and other materials.

Before a Landslide...

- To begin preparing, you should build an emergency kit and make a family communications plan.
- Prepare for landslides by following proper land-use procedures - avoid building near steep slopes, close to mountain edges, near drainage ways or along natural erosion valleys.
- Become familiar with the land around you. Learn whether debris flows have occurred in your area by contacting local officials. Slopes where debris flows have occurred in the past are likely to experience them in the future.
- Recognize the warning signs of a landslide and take the appropriate action.

After a Landslide...

- Seek advice from a geotechnical expert for evaluating landslide hazards or designing corrective techniques to reduce landslide risk. A professional will be able to advise you of the best ways to prevent or reduce landslide risk, without creating further hazard.
- Replant damaged ground as soon as possible since erosion caused by loss of ground cover can lead to flash flooding and additional landslides in the near future.
- Check for injured and trapped persons near the slide, without entering the direct slide area. Direct rescuers to their locations.

During a Landslide...

- During a severe storm, stay alert and awake. Many deaths from landslides occur while people are sleeping.
- Listen to local news stations on a battery-powered radio for warnings of heavy rainfall.
- Move away from the path of a landslide or debris flow as quickly as possible. The danger from a mudflow increases near stream channels and with prolonged heavy rains. Mudflows can move faster than you can walk or run. Look upstream before crossing a bridge and do not cross the bridge if a mudflow is approaching.
- If you are near a stream or channel, be alert for any sudden increase or decrease in water flow and notice whether the water changes from clear to muddy. Such changes may mean there is debris flow activity upstream so be prepared to move quickly.
- Curl into a tight ball and protect your head if escape is not possible.

Did You Know?

Landslides occur in all U.S. states and territories and can be caused by a variety of factors including storms, fire and by human modification of land.

For additional information on landslides and debris flows, go to www.ready.gov.



A Preparedness Resource from
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