
Urban flash floods - FAQs

Summary

- Flash floods can occur with little or no warning, which is why they can be dangerous.
 - Flash flooding in urban areas can pose health and safety risks, including disease, infection and injury.
 - Avoid walking in all floodwaters if possible, and take safety precautions if you have no choice.
 - Driving in very wet and flooded conditions in urban areas can be dangerous.
-

What is flash flooding?

Flash flooding results from relatively short, intense bursts of rainfall, often from severe thunderstorms. It can occur in almost all parts of Australia and poses the greatest threat of loss of life due to flooding. People are often swept away after entering floodwaters on foot or in vehicles. These floods can also result in significant property damage and major social disruption. They are a serious problem in urban areas where drainage systems are often unable to cope.

Flash floods can also occur in rural areas where the nature of terrain and steepness of the streams can lead to very rapid development of flooding.

Is there a warning system for flash floods?

Warnings are available on the [VicEmergency website](#), or you can download the [VicEmergency app](#) and set up a 'watch zone' for your location to receive advice and warnings about potential flood events. You can also visit the [VicEmergency flood webpage](#) for updates and information.

What is urban flooding?

Urban development in our towns and cities introduces hard surfaces such as roofs, roads, driveways and paths which stop rain soaking into the ground. This means more water runs off than would naturally occur. Although gutters, pipes and drains have been built to direct the water where we want it to go, the biggest storms have more water than pipes or gutters can carry. The extra water runs across the ground as overland flow, leading to greater runoff being generated, which can make rivers out of roadways, lakes out of car parks and deep pools out of underpasses.

Is urban flash flooding dangerous?

Yes, it can be. In fact, flash flooding carries the greatest risk of injury or death due to flooding, as the sudden swell of water often catches people by surprise. Whether in an urban or rural area, flash flooding can present a number of hazards. There can be significant risks from slip and trip hazards beneath the water, as well as the risk of diseases and other contaminants which can be in the water in both urban and rural environments.

Injury and infection

Flood waters may contain sharp objects, such as glass or metal fragments, that can cause injury and lead to infection. Water can also hide trip or slip hazards, such as rocks, steps, kerbs, tree roots, grass, mud or other debris. If water is fast moving, these hazards can lead to serious puncture wounds, bone breaks, or worse.

Flood water poses drowning risks for everyone, regardless of their ability to swim. Even shallow water can be deadly – if you fall over in 15cm of water moving at only 10 kph you are unlikely to be able to stand up again – and shallow standing water can be dangerous for small children.

If you can't avoid walking in flood waters, make sure you:

- wear sturdy shoes (not thongs or open sandals)
- cover any existing open wounds
- immediately clean any new cuts or scratches with soap and water
- try to make sure you only walk where you can see the surface beneath the water and where there is a hard surface underneath, such as concrete, but not grass.

And remember, water levels can change quickly and dramatically.

Pollution and contamination

A number of infectious diseases, including gastrointestinal infections and hepatitis A, can spread through contact with surfaces contaminated by flood waters. The likelihood of illness increases when floodwater contains faecal material (poo) from overflowing sewerage systems, or agricultural or industrial wastes.

In urban areas, drainage overflow can be a major source of pollution. It picks up potentially harmful substances from roads, factories, gutters and drains, including oil, household chemicals and faecal material, and transfers them to streets and urban watercourses. This water poses risks to human health as it may contain toxins and pathogens such as E. coli and the virus that causes hepatitis A.

There is also an increased risk of wound infections, dermatitis, conjunctivitis, and ear, nose and throat infections from polluted waters.

What if I have been in flood water?

If you have been in flood water, wash any skin that has been exposed with soap and water and make sure you wash and dry your shoes and clothing.

If you have an open cut or sore that has been exposed to floodwater, keep it as clean as possible by washing with soap and covering it with a sticking plaster. Contact a doctor for further treatment advice (such as if a tetanus shot is needed).

Contact your doctor immediately and tell them you have been in floodwaters if:

- you develop gastrointestinal symptoms like diarrhoea, vomiting, abdominal cramps or fever
- you have a long period of eye redness or eye irritation, pain, sensitivity to light, sudden or blurred vision, or discharge
- any scratch or puncture wounds develop redness, swelling or discharge.

Can I drive in an urban flood?

We all know not to drive through flooded river crossings or major floods, but what about urban flash floods? They can be just as dangerous. The heavy rain that causes flash flooding can affect the way your car handles: roads become more slippery as oil and other contaminants come to the surface, it can be harder to see ahead and your brakes become less effective. If you're caught in a torrential downpour, pull over if it's safe and sit out the rain. If this isn't possible, change the way you drive to suit the conditions: slow down, take it easy and turn on your headlights so you can be seen.

Keep an eye out for water on the road, particularly moving water or pooled water (such as in dips or potholes). Vehicles can quickly become unstable in moving water – just 30 cm of water moving at only 10 kph is enough to float the average family car. And water covering the road can cause your car to 'aquaplane' – lose traction on the road and slide out of control.

If you come across pooled water, especially in a low lying area, stop and assess the depth: if it is above the lowest point on your wheel rim, it's too high to drive through. If it is less deep, slow right down and drive through smoothly and steadily. Once you are through, gently touch your brakes lightly a couple of times to dry out the brake pads.

Key contacts

In an emergency

Call triple zero (000) for life-threatening emergencies.

Call the State Emergency Service Victoria (SES) on 132 500 for emergency flood or storm assistance.

Call VicRoads Traffic Management Centre on 13 11 70 to report any road hazards, such as flooding, traffic light faults, vehicle crashes affecting travel flow, on-road debris or equipment damage.

For information

Visit the [VicEmergency website](#) or [download the app](#) for the latest alerts and updates.

Listen to your [local ABC radio station](#) for emergency broadcasts.

Visit [VicTraffic](#) to check for road closures and safe travel routes.

Visit [Public Transport Victoria](#) for live travel updates.

For more information on floods, visit our [flood information centre](#).

This page has been produced in consultation with and approved by:

Better Health Channel

Content on this website is provided for information purposes only. Information about a therapy, service, product or treatment does not in any way endorse or support such therapy, service, product or treatment and is not intended to replace advice from your doctor or other registered health professional. The information and materials contained on this website are not intended to constitute a comprehensive guide concerning all aspects of the therapy, product or treatment described on the website. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions and to ascertain whether the particular therapy, service, product or treatment described on the website is suitable in their circumstances. The State of Victoria and the Department of Health & Human Services shall not bear any liability for reliance by any user on the materials contained on this website.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2020 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.