

CFS FACT SHEET

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HOW PEOPLE DIE IN BUSHFIRES AND HOW THEY SURVIVE

How People Die in Bushfires

Leaving late

Many people who die in bushfires are caught by fire in their cars or on foot trying to escape. Maximise your chances of survival by leaving early.

Lack of planning

Fires can be very frightening, and may make it hard to think clearly or make good decisions. Sometimes people find out too late they don't have essential resources to enact their plans. It is vital that you have a **written** and **practised** Bushfire Survival Plan.

Radiant Heat

Radiant heat is the major cause of death during bushfires. If you put your hand near an open flame, an electric heater or light bulb you can feel the radiant heat it generates. Draw your hand away and the amount of heat you feel on your skin decreases. Put something between your skin and the heat source and again your skin feels immediately cooler. That's all you need to remember about radiant heat from bushfires – distance and shielding protect you from dangerous exposure.

The danger is real. Radiant heat from the flame front of a bushfire scorches vegetation well in front of its path and kills animals and people caught in the open. Death is caused by heat stress, when the body's cooling system fails, leading to heat exhaustion and death.

To manage radiant heat:

- decrease fire intensity by reducing fine fuels around your home prior to the fire danger season.
- move away from the heat source
- establish a barrier between the heat source and yourself, for example:
 - a solid wall
 - another building
 - protective clothing
 - blankets
 - landscaped features such as embankments and terracing etc.



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Heat Stress:

The human body operates most efficiently between a narrow range of temperatures. Once it exceeds the uppermost limits, physiological failure begins and this can lead to collapse and death.

Heat stress can be managed by:

- Wearing sensible clothing: clothes of natural fibre that allow air flow and are not too hot.
- Drinking lots of water.
- Sheltering from radiant heat as much as possible, especially when the fire front arrives.
- Avoiding unnecessary exertion.
- Avoiding elevated water tanks. Once immersed in water, the body will quickly absorb heat from the water. If the ambient air temperature is in the high thirties and a bushfire raises the temperature of the water a further ten degrees, the water/body temperature will be unsurvivable.

Dehydration

Very hot conditions plus excessive stress and exertion during bushfires will rapidly lead to loss of fluids and subsequent dehydration. In a bushfire a person could lose up to 2 litres/hour. Symptoms of dehydration, such as tiredness, irritability, irrational behaviour and loss of coordination may lead to collapse and in extreme cases death.

Dehydration can be managed by regularly drinking water, about 1 cup every 5 to 10 minutes. It is easier to manage where there is more than one person present so that one can look after the other.

Burn Injuries

Burn injuries occur through exposure to intense heat and can be managed by avoiding being in the wrong place at the wrong time. This requires understanding and planning.

Treating burns and injuries:

- Follow DRSABCD (Danger, Response, Send for help, Airway, Breathing, CPR and Defibrillation).
- Remove the patient from danger — do not become a casualty yourself.
- If a person's clothes catch on fire, stop the person moving or running around, as this will fan the flames. Remember: STOP-COVER-DROP-ROLL to extinguish the flames
- Hold the burnt area under cool running water until the injury has returned to normal body temperature (up to 20 minutes)
- Only remove jewellery and clothing if it is not stuck to the burnt area
- Cover the burn with a sterile, non-stick dressing (eg. Cling wrap, but not overhead/face burn)
- If the casualty is conscious and thirsty, give frequent small sips of water
- Alleviate extreme pain by gently pouring cool water over the dressing
- Calm patient
- Seek medical aid urgently

Do not:

- Apply any lotions, ointments or oily dressings
- Prick or break blisters
- Give alcohol to drink
- Overcool the patient, particularly if very young, or if the burnt area is extensive
- Remove clothing stuck to burnt area

With thanks to RAH Burns Unit and St John Ambulance Australia SA Inc

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Physical Injuries

It is very common for accidents to occur during bushfires because of poor visibility, high stress and adrenalin levels which lead to confusion, poor decision making, loss of concentration and tunnel vision.

The risk of physical injuries can be managed by being extra careful. People should be aware of the likelihood of injury whilst firefighting. Good planning is also important in preventing physical injuries. Good planning leads to confidence, which reduces stress levels. Good planning also means less stressful decisions need to be made on the spot and is beneficial to controlled behaviour.

Lung Injuries

In a building fire the most common hazard to humans is from smoke and toxic gases. Death often results from reduced oxygen in the bloodstream, caused by the replacement of oxygen with carbon monoxide. While this is a major cause of death in house fires it is uncommon in bushfires. In bushfires smoke contributes indirectly to death by poor visibility, eye and lung problems and stress.

Lung injuries can be managed by protecting the lungs from the smoke and super - heated air. It is important to seek shelter when heat and smoke are most intense. Nose and mouth should be covered with a P2 rated face-mask, towel or scarf etc. A special filter P2 face-mask for people suffering respiratory conditions such as asthma should be included in your survival kit.

Survive after the fire

Survival isn't just about what happens during the fire, it's also about how well you recover in the days, weeks and years after the fire.

Returning Home

Look and listen for information on television, radio, the internet and other information lines to find out when an all clear advice has been issued and if it is safe to return home.

Be careful travelling home: watch out for downed power lines; fallen trees; low branches and burning debris; wandering animals; damaged infrastructure including walls, bridges, roads and footpaths; emergency services, who may still be working in the area.

A fire can be very destructive and selective, leaving one home untouched and destroying the next. If your home has been badly fire damaged and you need a place to stay, seek help from welfare agencies.

You need to be mentally and emotionally prepared when returning to your property. If you live alone, you may want to bring someone with you when you first return. It is best that you prepare mentally, have support and offer support to others during this time.

Access to your home should be limited to adults initially for safety reasons. When you arrive home you should be very cautious and aware of the following potential hazards: live electricity; leaking gas (odour or hissing); septic or sewage leaking; hot embers; trees and over hanging branches; major structural damage.



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How to look after your emotional health

Being in a bushfire may be the most traumatic experience of your life. It is as important to look after your emotional recovery as it is to treat physical injuries.

- Make sure you and your family are safe
- Follow your normal routine if you can
- Get information about how people feel after an emergency, and how long it takes to feel better
- Spend time with people you care about
- Talk about what has happened to you
- Talk to your family - especially your children - about how they feel
- Take time to rest and do things you enjoy
- If you are not feeling better, seek help from a mental health professional, doctor, or recovery worker

