

# Eye injury – flash burn

## Emergency Department factsheets



### What are flash burns?

A flash burn occurs when you are exposed to bright ultraviolet (UV) light. It can happen in all types of UV light but is most common among welders (sometimes called 'Welder's flash' or 'Arc eye').

Flash burns cause a painful inflammation of the cornea (the clear tissue that covers the front of the eye), which is like sunburn in the eye, and can affect both your eyes.

### What causes flash burns?

You can receive a flash burn after being exposed to UV light from various sources such as:

- a welding torch
- direct sunlight
- reflection of the sun off water or snow
- a sunlamp (in a tanning salon)
- some types of lamps (halogen or a photographer's flood lamp)
- lightning
- explosion
- solar eclipse (looking directly at the sun for a prolonged period of time).

### What are the symptoms?

- Pain that may be mild to very severe.
- Bloodshot eyes.
- Being sensitive to light.
- Watery eyes.
- Blurred vision.
- A feeling there is something in your eye (usually both eyes).

### Treatment

- Vision assessment using an eye chart.
- The doctor may use an eye drop to numb your eyes. This works long enough to examine your eyes. You will need to protect your eye (wear glasses or eye-patch) until it wears off.
- A careful check of your eyes for damage. As part of the examination, the doctor may put an orange dye in your eyes. This shows up any damage when a special blue light is used. The dye will be washed out in your tears and may discolour your nasal secretions (i.e. when you blow your nose).
- Sometimes an eye drop is used to paralyse your eye muscles to allow your eyes to rest. Your pupils (the black part of the eye) will look bigger than normal. This effect may last up to 48 hours.
- Your eyes may be padded with an eye-patch to allow them to rest and heal.
- Do not drive or operate machinery while you are experiencing visual disturbances, such as blurred vision, or while wearing an eye patch. It is dangerous.

### Home care

- You may be advised to use drops or ointment at home to stop infection. Follow your doctor's advice on how often to use them.
- Wash your hands before using drops or putting ointment in your eyes.
- To use drops or ointment, rest your finger on your cheek, before pulling down the lower eyelid. Make sure you only put in the amount prescribed. Make sure that the nozzle does not touch the eye when using either drops or ointment.
- For eye drops: Tilt your head back and drop the liquid in behind your lower eyelid.
- For ointment: Smear a small amount along the inside of the bottom eyelid.

- You will need to continue with the treatment until your eyes have healed.
- Keep all drops and ointment in the fridge, and out of reach of children. Discard drops and ointment safely once your treatment has finished.
- Take painkillers such as paracetamol or codeine if you have pain. Check the packet for the right dose. The pain is likely to last about a day.
- Do not wear contact lenses until your eyes have healed.
- Sunglasses may help if your eyes are sensitive to light.
- Artificial tears or lubricants can ease discomfort. You can buy these at a pharmacy.

## What to expect

Your cornea can repair itself in one or two days and usually heals without leaving a scar. However, if the flash burn is not treated, an infection may start. This can be serious and may lead to loss of vision.

## Prevention

- Wear safety goggles that have been coated to protect the cornea from UV light.
- Always wear a welder's mask when welding. Make sure goggles are made to Australian standards and cover the eyes completely.
- Sunglasses should protect against both UV A and B radiation. Check the label when buying sunglasses.

## Follow-up

Most doctors will want to see you again in 24–48 hours to make sure that your eyes are healing. Some problems, such as infection, do not show up right away, so it is important you return for a check-up. If there are any serious problems you will be sent to an ophthalmologist (an eye doctor).

## Seeking help

In a medical emergency, go to the nearest hospital emergency department or call an ambulance (dial 000).

See your local doctor or health care professional if you:

- have blurred vision
- notice a change in vision
- see spots or flashes of light
- have pain when moving your eyes
- have worsening pain after 24 hours
- or you are concerned for any other reason.

For other medical problems see your local doctor or health-care professional.

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