

Eye injury – flash burns

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. It is 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:

- 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
- An explosion
- A 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)

Diagnosis and treatment

- Flash burns can be diagnosed via a vision assessment using an eye chart
- Your doctor will conduct a careful check of your eyes for damage. As part of the examination, the doctor may put an

orange dye (fluorescein) 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 (when you blow your nose).

- Sometimes drops may be put in your eyes to cause the black part of the eye (your pupil) to widen (dilate). This allows in more light and gives your doctor a better view of the back of your eye. Your pupil may stay dilated for up to 48 hours.
- The doctor may use an eye drop to numb your eyes to ease the discomfort while your eyes are examined

Do not drive or operate machinery while you are experiencing visual disturbances such as blurred vision.

Home care

- You may be advised to use drops or ointment at home to prevent infection and/or to lubricate the surface of your eye. 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
- 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. Make sure the nozzle does not touch your eye.
- You will need to continue with the treatment until your eyes have healed
- Take medications such as paracetamol if you have pain. Check the packet for the correct dose. The pain is likely to last for about one day.
- Do not wear contact lenses until directed by your doctor
- Sunglasses may help if your eyes are sensitive to light

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 UVA and UVB radiation. Check the label when buying sunglasses.

Follow-up

Follow-up is not necessary in many cases. If a review is recommended you may be asked to return to the Cabrini ED Review Clinic to make sure your eyes are healing. If there are any serious problems you will be referred to an ophthalmologist (an eye doctor) at Cabrini Eye Clinic.

Seeking help

Cabrini Emergency Department (ED) is staffed by experienced emergency doctors and nurses 24 hours a day, 7 days per week. If you have any questions about your ED treatment our qualified ED staff can be contacted on **(03) 9508 1500** at any time. If you need to return to Cabrini ED for ongoing care we would be glad to take care of you again and if this occurs within a week of your initial consultation the doctor's fee will be bulk-billed.

You can also expect to receive a phone call or SMS message from one of our emergency nurses the day after you have been discharged. The nurse will be able to clarify any aspect of your diagnosis, treatment, or follow-up.

In a medical emergency return to Cabrini ED if it is safe to do so or go to the nearest hospital emergency department or call an ambulance – dial triple zero (000).

Return to Cabrini ED if:

- **You have increasing pain in your eyes**
- **Your vision is getting worse (or is blurry)**
- **Your eye is getting more sensitive to light**
- **You are concerned for any other reason**

Want to know more?

- Contact Cabrini ED on **(03) 9508 1500**
- Ask your local doctor or healthcare professional
- Visit the Better Health Channel at www.betterhealth.vic.gov.au