

Eye Care:

Protecting and treating eyes



The consequences of eye damage can be life-changing; everything should be done to protect the eyes or provide suitable treatment in the case of injury.

Safety goggles or glasses should be used for any activity that has the potential to damage the eyes, such as those involving chemicals or those that might cause particles to fly in the air. This could include workplace activities, such as construction or mining, but also household activities, such as mowing the lawn and DIY. In schools, staff and students may need protection during science or 'design and technology' lessons.

Eye wash is a necessary first aid supply in case a particle or chemical does contaminate the eye, despite all safety precautions. Some workplaces have special eye showers installed, or it may be possible to use an ordinary tap to irrigate the eye. However, there are many situations where running water will not be available or accessible enough for someone to use on their eye. In these circumstances, eye wash or eye baths provide quick and effective pain relief, as well as reducing the likelihood of further damage to the eye.

There are also times when eye protection is not practical or realistic, despite the possible risks. Children playing on a sandy beach, for example, are at risk of getting sand in their eyes, but would not be expected to wear safety goggles. In these situations, having eye wash or an eye bath handy – in the family first aid kit, the car first aid kit, or as part of a beach lifeguard station – allows for any issues to be quickly resolved.



Types of eye wash

There are different types of eye washes available, depending on the type of contamination that it is most likely to be used for: **particle** or **chemical**.

To ensure its sterility, HypaClens eye wash is a saline solution containing 0.9% Sodium Chloride. It works simply by diluting and flushing away any contaminants, and as such is a substitute for using tap water.



For chemical contamination of the eye, a more effective alternative is Cederroth. Cederroth's eye wash is a Borate buffered Isotonic Sodium Chloride solution. It restores the eye's pH to normal levels more quickly than tap water or standard eye wash, helping to minimise the harm and reduce the likelihood of permanent sight loss. Cederroth eye wash is effective against acidic and alkaline substances but is particularly effective at neutralising alkalis which are also more damaging to the eye.



Storing eye wash

Eye wash in the home

In the home, the location of eye wash will depend on where it will most likely be needed. This may be a garden shed, if it is used for DIY, for example. Otherwise, the kitchen or a bathroom cabinet would be the best place to store it – somewhere that can be easily and quickly accessed in an emergency.

Eye wash in the workplace

Where the need for eye wash facilities (such as an eye wash station, or eye wash bottles) has been identified in the workplace risk assessment, **the HSE regulations state that at least one litre of sterile water or sterile saline should be provided in sealed, disposable containers. Once the seal is broken, the containers cannot be kept for reuse. This means that workplaces requiring eye wash should have a minimum of two litres in separate containers, allowing for supplies to still be immediately available if one of these is used.**

Eye wash facilities should be located near the major hazards to eye health. The more obvious examples of these are labs working with harmful chemicals, industrial cutting equipment and grinding wheels. However, there are less obvious workplaces that sometimes get overlooked. Warehouses, for example, may have a lot of packaging dust in the air; agricultural work can also be very dusty or involve flying particles of grass or crops, which can irritate the eyes.

If an eye wash station is required, it should be fixed to the wall, easy to access and on the same level as the hazard, not requiring stairs or a ladder to reach. It should be clearly sign-posted and a mirror may be helpful to allow casualties to treat themselves.

In addition to eye wash, two sterile eye pads are suggested as a minimum first aid supply in any workplace. These are included in any British Standard first aid kit but are also included in many eye wash station products.

A final consideration for workplaces is visibility. Ensuring all employees know where to find first aid when necessary is a requirement of health and safety provision in the workplace. Signs to remind employees of protecting their eyes, as well as the location of first aid and how to provide it are useful reminders.

We offer both HypaClens and Cederroth eye washes in a range of applicators and stations in order to suit individual needs, whether those are portability, visibility or ease of application.



First aid for eye contamination



How to treat eyes contaminated with dust, dirt or other particles

1. Ask the casualty what they have been doing and if they know what has caused their eye irritation/injury.
2. Ask the casualty to remove contact lenses, if worn.
3. Get the casualty to sit down, leaning slightly back and inclined towards the side of the contaminated eye.
4. Standing behind them, use your thumb and index finger to gently separate the eye lids.
5. Ask the casualty to look up, down, left and right so you can look for any foreign bodies on the eye's surface.
6. Begin irrigation (eye wash or eye bath – see instructions below). If you are using sterile eye wash, check the following first:
 - The bottle is sealed.
 - The product is within the expiry date.
 - The contents of the bottle are not cloudy.

Eyes embedded with foreign bodies

If a foreign body has become embedded in the eye, do not remove it and do not attempt eye wash. The casualty should be referred straight to hospital.

Eyes should be covered to immobilise them and reduce further damage. As the eyes have a sympathetic movement system, meaning that they both move in synchronisation, it may be necessary to apply dressings to both eyes to fully prevent movement. If the foreign body is large, the dressing may need to be applied around the object.

How to use eye wash

1. Remove contact lenses, if worn.
2. Tilt the head back and pour eye wash over the eye, ensuring the water runs away from the unaffected eye. Some eye washes have special fittings on the end to fit securely around the eye.
3. If the eye is contaminated with dust or dirt, continue to do this until the contamination is removed.
4. If the eye is contaminated with chemicals, wash out for at least 15-20 minutes or as per the chemical data sheet instructions.
5. Cover the eye with an eye pad. The unaffected eye may also need to be covered to prevent eye movement.
6. Seek medical advice to ensure there has been no damage to the eye.

How to treat eyes contaminated with chemicals

1. Check for further danger to you or to other parts of the casualty's body – if available, wear gloves.
2. Ensure contact lenses have been removed, if worn.
3. Quickly place the casualty in a reclined sitting position.
4. Immediately start to irrigate the eye (using eye wash or tap water), making sure that the water runs away from the casualty's face.
5. Ask another colleague to identify the chemical that has contaminated the eye, and to check the label for further advice. They should also check the organisation's COSHH data sheet.
6. After eye irrigation (see below), cover the eye and seek medical aid.
7. Do not do any of the following:
 - Send the casualty back to work without getting a medical opinion.
 - Throw away any chemical containers – these may be useful for information.
 - Attempt to neutralise the chemical with other chemicals.

How to use an eye bath

1. An eye bath can be useful to avoid wasting eye wash or if you are administering eye wash to yourself.
2. Rinse out the eye bath before use.
3. Remove contact lenses, if worn.
4. Pour eye wash into the eye bath – between a third and half full.
5. Bend your head forwards to place your eye over the eye bath, fitting it carefully around your eye socket.
6. Tilt your head up again, holding the eye bath against the eye socket, until the eye wash flows over your eye.
7. Keep the eye open and rock your head from side to side for around 30 seconds, ensuring any water that escapes runs away from the unaffected eye.
8. Cover the eye with an eye pad. The unaffected eye may also need to be covered to prevent eye movement.
9. Seek medical advice to ensure there has been no damage to the eye.