

Paediatric information for parents: pharmacy

Atropine treatment for amblyopia (lazy eye)

Amblyopia (pronounced amb-lee-oh-pee- ah) or 'lazy eye' develops in childhood and leads to reduced vision in one eye. It happens when one eye is used less than the other between birth and seven years of age. This leads the brain to prefer the better eye and therefore the other eye becomes 'lazy'.

Frequently asked questions (FAQ's):

What causes amblyopia?

- a turn in the eye (strabismus or squint).
- a difference in the glasses prescription between the two eyes.
- an obstacle blocking the visual stimulation to the eye, such as a droopy eyelid or cataract (cloudy lens). The amblyopia may still continue after the obstacle has been removed.

Treatment of amblyopia

Glasses can help your child's amblyopia and should be worn all the time if prescribed. There are two treatment options for encouraging the vision in the weaker eye and both involve temporarily reducing the use of the good eye:

1. **Patch** to cover the good eye.

If glasses are worn, until your child is used to wearing the patch, it should be placed under their glasses (on the skin) to prevent them peeping. Once your child is used to the patch and their vision has started to improve, the patch may be worn on their glasses. This should only be done following orthoptic advice.

2. **Eye drops** (1% atropine sulphate) to blur the vision in the good eye.

The drops need to be used twice a week- for example on Wednesday and Sunday. The treatment will continue until either the vision in each eye is equal or if we notice there is no further improvement in your child's vision on two consecutive visits.

How do the drops work?

The drops relax the focusing muscles of the eye, which blurs vision in the good eye during the treatment. The drops also relax the muscles of the eye responsible for dilating (enlarging) the pupil (the pupil is the central black area in the middle of the iris which is the coloured part of the eye –(see figure 1 below).



Figure 1

Important information:

- Wash and dry your hands before and after giving drops.
- Only place one drop in your child's eye.
- Inform your child's school about their use of atropine and enlarged pupil.
- Store atropine in a safe place out of the reach and sight of children.
- Store atropine at room temperature (less than 25°C).
- Do not use the drops after the expiry date written on the packaging has passed.
- Do not re-use single dose unit preparations ("minims"). Use once then throw away.

What should I tell the pharmacist, orthoptist or doctor?

Tell the pharmacist, orthoptist or doctor if your child is allergic to any medication or if your child has any other eye condition, particularly glaucoma.

What are the side effects of atropine?

The main side effect caused by using atropine is blurred vision which can last up to two weeks after finishing

treatment. Your child's eye may also be more sensitive to light.

If your child has a turn in the eye (squint) you may notice the squint will appear in the other eye whilst using atropine. Do not worry about this, as when the squint swaps from side to side it often means the lazy eye is starting to see better.

In rare cases, once the vision has improved in the lazy eye, the previously 'good' eye may then become lazy and need treatment. However, with careful monitoring by the orthoptist this is very unlikely to happen.

As with most medicines, there may be some other side effects when using atropine drops.

These include mild stinging and redness of the eye after putting the drops in and an allergic reaction to the drops (when the eye becomes very red and itchy).

In rare cases, the use of atropine can lead to increased eye pressure.

However, this usually only happens if there is already a problem with the health of that eye.

General side effects not related to the eye are rare and happen when small amounts of the medicine are absorbed into the body from the eyes. These include: dry mouth and skin, redness of the cheeks, irritability and difficulty sleeping, high

