

# Botulinum Toxin (Botox) for squint

## What is the effect of botulinum toxin?

Botulinum toxin (Botox) injected into a muscle causes complete or partial weakness of that muscle. Its effects are temporary. The treatment has been used for squint (misaligned eyes) since 1979.

## Will botulinum toxin affect general health?

The treatment is safe and there is no significant systemic absorption. With any medication, there is a small potential risk of an allergic reaction (anaphylaxis). However, we have never had anyone experience this problem. There is no known risk for the use of botulinum toxin during pregnancy or breastfeeding, although some women choose to delay their treatment until after pregnancy or after weaning their child.

## What is the treatment procedure?

To treat children the procedure is performed under a very short general anaesthetic i.e. they will be put to sleep.

Local anaesthetic eye drops will be given to your child. Electrodes will be then placed on your child's forehead and temple. The needle is attached to an electric amplifier to confirm the correct position of the needle prior to injecting a small amount of the medication into the muscle. The whole procedure takes less than a few minutes. We usually inject two muscles if a child is under general anaesthetic. The anaesthetic process (putting your child to sleep and then waking them up) will take longer.

Your child will not feel any discomfort during the procedure.

## **Arrival in hospital**

After completing admission paper work your child will be assessed by nursing staff and then seen by the anaesthetist. In general, the order of the operating list is from the youngest to the oldest child. If your child is having their operation later in the list it is still vital to arrive on time to see the anaesthetist before the start of the list so that s/he is able to start the list on time and prevent disruptions during the list. As there is always some waiting involved, bringing some toys or books to keep your child amused is a very good idea.

## **Going off to sleep**

In general, one parent will be able to go with your child into the anaesthetic room or operating theatre. Children can be anaesthetised ("put to sleep") with either gas (given by mask) or by an injection. Please discuss these different methods of going to sleep with the anaesthetist during the pre-operative assessment. Your child will go to sleep quite suddenly and it is not uncommon to feel a bit helpless and distressed by this. If you feel faint sit down on the floor. We won't be upset and may not catch you if you faint while standing!

## **Waiting!**

Once your child is asleep you will be accompanied out of the anaesthetic room to the waiting room. The procedure only takes a few minutes so please remain in the designated waiting area so that I can speak to you as soon as the operation is completed.

## **What happens after the injection?**

Your child will be brought back to the recovery area and when fully awake and recovered, you will be allowed to go home. Your child may feel an ache in the eye after the injection and a painkiller such as Panadol maybe taken for the first 24 hours.

## **When should I expect to see an effect from the treatment?**

You will start to see an effect 2-3 days after the injection.

## **How long does the effect last?**

The effect can vary but usually lasts 3-4 months. You will initially notice a reversal of your squint, followed by a gradual straightening of the eyes as the muscle weakness or paralysis wears off. In some children with a recent squint, the brain may lock the eyes back in alignment and the eyes may remain straight long term.

## **What are the possible side effects?**

Nearly all side effects are temporary and wear off over a few weeks.

Older children or teenagers may get double vision as the eyes are closer together and/or the squint is reversed. The eye may be patched temporarily if this causes discomfort.

Sometimes, adjacent muscles are inadvertently affected (especially if there has been previous surgery). This can cause a droopy eyelid (in 15%) or a vertical shift of the eye. These effects almost always wear off.

Redness or bruising of the eye may occur uncommonly and will get better.

There is the very rare possibility of the needle perforating the eye to cause severe loss of vision (<1/10,000).

## **When do I return to clinic with my child?**

Your child will usually be asked to return to clinic 2 weeks after the injection. If the first injection did not produce an adequate effect, we may offer a repeat injection at that visit.