

Steroid Joint Injections using Entonox (Laughing Gas)

Information for parents



Leeds children's
hospital

caring about children

This leaflet explains:

- The practical details of a steroid joint injection, using Entonox.
- Why steroid joint injections are recommended.
- Possible unwanted effects (side-effects).

What is a Joint Injection?

A joint injection is a common way to treat Juvenile Idiopathic Arthritis. Joint injections reduce inflammation and pain in swollen joints. Your child's rheumatologist will insert a needle into the joint space (the space between the bones in a joint) and then inject a long-acting steroid medicine into the joint. Most children notice that the joint is a lot less sore and inflamed within a few days after the injection.

How long will the effects last for?

The amount of improvement and how long it lasts varies from child to child and depends on the type of arthritis they have. Most children will notice improvement for weeks or months. Sometimes, the arthritis in that joint goes into remission for years or even forever. Only a very small number of children do not respond to this treatment at all.

What is Entonox?

It is a mix of oxygen and nitrous oxide. After a few minutes of breathing it in, it numbs pain and can make some children or young people sleepy and / or giggly.

What preparations are needed for the procedure?

- You should only consume light diet before the procedure.
- Your child should wear loose clothes that they can pull up to uncover the joints that need to be injected.
- If your child is unwell or has a temperature, you should call your rheumatology nurse or Children's Ward the day before the procedure because it may have to be postponed until they are well.

What happens on the day of the procedure?

The procedure is carried out on the Children's Ward / Clinic at the hospital.

The nurse will explain the procedure to you and your child and encourage your child to practice the breathing technique required to breathe in the laughing gas (**Entonox**).

When it is time for your child to have their joints injected, you can go with them and stay with your child for the entire time of the procedure. You will go into a room with a bed and some equipment.

Your child will need to breathe the laughing gas for 1 - 2 minutes before it fully takes effect. Your child may appear very sleepy. They may also laugh or say funny things which is normal and is caused by the laughing gas.

When they are relaxed enough, the rheumatologist will start the joint injections.

During the injection

- Your child's rheumatologist will clean the area around your child's joint with a cold cleaning solution to make sure the area is sterile.
- The Doctor will then insert a needle attached to a syringe through the skin into the joint space. The Entonox numbs the sharpness of the needle.
- If there is any excess fluid within the joint space, the doctor will attempt to suck this out through the needle. This fluid is yellow. Occasionally, there is a bit of blood mixed in which is normal and from the injection.
- Then, the doctor will change the syringe (the plastic bit that holds the fluid) and reconnect another syringe to inject the steroid medication.
- The needle is then removed and a small plaster is applied. Each joint takes about 5 minutes to inject. If there are any more joints that need an injection, the doctor will do them straightaway while your child is still relaxed and breathing the gas.

How can I help my child cope with the procedure?

Some children and parents can be very nervous about an up-coming joint injection, this is a normal response. Being informed about a procedure can reduce the anxiety you may feel and help you deal with your own fears or concerns. Being able to talk to your child about what they may expect and about specific fears they may have can help them cope with the procedure. Because you can stay with your child while they are having the joint injection, you can play a big role in helping your child relax during the procedure.

Distraction can be important for this procedure so your child may find it useful if you bring a book, tablet or phone that they can look at, whilst having the procedure.

After the injection(s)

- The laughing gas can make your child's mouth feel dry. Some children feel a little sick. This should however, be short-lived as the laughing gas goes out of your child's system within a few minutes of not breathing the laughing gas.
- Juice and water is available for your child to drink after the procedure. Your child can rest for 5 - 10 mins and can have paracetamol / ibuprofen if needed. As soon as your child feels back to normal, you can go home.
- For 24 hours after the injection, your child should avoid using the joint too much. This may involve resting, depending on which joint have been injected.

- After this, your child should be able to go back to school and resume normal activities such as taking part in P.E. etc; however, a gradual return is sensible, especially if a joint has not been used much recently as muscles can ache with a sudden return to activity.
- If the joint(s) have become stiff or the surrounding muscles have become weak, then meeting with a Physiotherapist within a couple of weeks of the joint injection is advised. The doctor who saw you in clinic or who performs the joint injection will advise you if this is needed and will arrange it.

Are there any side-effects of the joint injection(s)?

There are a few possible side-effects from a joint injection but these are usually not serious. These include:

- steroid can thin the fat tissue under the skin causing a little dimple or make the overlying skin go a little pink. This is rare and is mainly seen at wrists, ankles and fingers. If it does happen, it doesn't hurt and doesn't cause any problem apart from the appearance. It heals with time but this can take several months;
- infection of the joint is a potential risk but is very unlikely and happens very rarely. Special precautions are taken to avoid this such as cleaning the skin carefully before injecting. Signs of infection are redness and swelling of joint, feeling unwell and a high temperature;
- a small proportion of children can experience pain in the joints after the injection but this should settle in a day or two; and
- if you are worried about pain or how the joint looks afterwards, please ring us or see your GP.

Contact details

Please feel free to contact the Paediatric Rheumatology Nurses on:

Tel: **0113 3920683**

(answer phone if we are not around to answer)

or email us @: **leedsth-tr.PRNurses@nhs.net**

Children's Ward: Tel: 0113 3927449



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