



Treatment

>>> Commonly used treatment for Juvenile Idiopathic Arthritis

Your child's treatment many consist of...

Medications

Many medications can be used to reduce pain and inflammation. The first medication your child's doctor may prescribe is a non-steroidal anti-inflammatory drug (NSAID). If your child's JIA is not well controlled with one of these medications, your child's doctor may prescribe another medication, such as a corticosteroid, a disease modifying anti-rheumatic drug (DMARD), or a biologic agent. Sometimes children take a few different medications to control the inflammation. Your child may also take pain relieving medicine to help with pain, like paracetamol. More information about medications used to treat JIA is available in the information sheet: 'JIA – Medication overview'.

Exercise

Being active is important. It helps your child's self esteem and independence, as well as joint movement. Physiotherapists develop exercises to keep your child's joints moving well and to maintain the strength of their muscles. Exercises can also help reduce the pain of JIA. Exercises are most effective when they are done every day.

Splints

Splints are made of plastic which is moulded around your child's arm or leg. Resting splints worn at night hold the joint in a good position. This helps with posture and use of the joint. Splints worn in the day are called working splints, and these support a painful joint so your child can stay active for longer.

Pain management

There are many strategies that are effective in helping children cope with pain during procedures, and in everyday life. It is important for you and your child to learn strategies like deep breathing and relaxation, distraction and helpful ways to think about the pain, as well as using strategies like taking medication for pain. These strategies work best if you and your child learn them together soon after diagnosis, and practice them regularly, so you can use them when they are needed.

Common procedures

Medical procedures such as blood tests and joint injections are used to diagnose, treat and monitor JIA. This information sheet gives a brief description of some procedures that are commonly used. Most children will only have a few of these procedures. More information about each procedure is available from your rheumatologist or rheumatology nurse.

Medical procedures may be painful or frightening for your child. This can make them anxious about all contact with health care workers. The rheumatology team is sensitive to children's fears about procedures, and procedures are only done when necessary.

It is important for both you and your child to understand the procedures and prepare for them with your rheumatologist or rheumatology nurse. This will make them less stressful.

Children often like to have a parent with them during a procedure. Wherever possible you can stay with your child. During a procedure, our staff will help you and your child to use strategies to relax and manage pain and anxiety.

More detailed information is available in the information sheet 'Helping your child manage pain during procedures'.

ROYAL
CHILDREN'S
HOSPITAL



Southern Health

Blood tests

Blood tests can be used to look for:

- How much inflammation there is in the body
- Certain side effects of the medicines your child is taking
- Substances that help to classify your child's arthritis

Blood tests involve using a needle to take a small amount of blood from a vein in the arm (or sometimes a finger prick in smaller children). The blood sample is then tested in the laboratory.

Most children cope well with blood tests. For some children, an anaesthetic cream (EMLA or Angel cream) is placed on the skin 30–60 minutes before the test. These creams can reduce the pain of a needle.

Common blood tests your child might have:

- Full blood examination (FBE) helps look for infection and blood problems such as anaemia – a lower than normal amount of red blood cells.
- Erythrocyte Sedimentation Rate (ESR) measures inflammation in the body.
- C-Reactive Protein (CRP) measures inflammation in the body. It does not always match the ESR.
- Urea and electrolytes (U+Es) measures how well the kidneys are working.
- Liver function tests (LFT) measure how well the liver is working.
- Rheumatoid Factor (RF). This autoantibody is present in some forms of polyarticular JIA and is associated with adult rheumatoid arthritis. If this is positive (RF+), it gives some clues about how the JIA might progress. However, some people have this factor in their blood without having arthritis at all.
- Antinuclear Antibodies (ANA). This autoantibody is present in some forms of JIA, especially oligoarticular JIA, and is linked to uveitis (these terms are explained below). ANA may be present even in healthy children.
- HLA-B27. This is a genetic marker that is present in some types of JIA, especially the enthesitis-related type. HLA-B27 may also be present in healthy children.

X-rays

X-rays are used to give a picture of the bones. This can be useful to check the position and condition of the bones near a joint. Having an X-ray is not painful, but it may be frightening or difficult for very young children, because they need to stay still for the picture to come out clearly. Your child will lie on a table under a large machine. Sometimes soft straps are used to hold the limb still while the X-ray is being taken. Taking the X-ray only takes a few seconds.

Ultrasound

This is another way to get a picture of inside the body. It is sometimes used to find out how much inflammation there is in the joint space. A small amount of gel is squirted on the joint and a technician or doctor places a plastic ultrasound sensor on the skin. The sensor looks like a microphone. You will be able to see a picture of the inside of the joint on a screen. The technician may slide the sensor over the skin to look at the joint from different angles. This may hurt if your child's joint is very tender to touch, but mostly it tickles.

Bone scans

Bone scans show the joints in the body that are inflamed. First, a small amount of radioactive 'tracer' is injected into a vein (your child may like to use EMLA or Angel cream to make the area go numb). The 'tracer' travels in the blood and collects at places where there is inflammation. The scan is done in two parts. The first is done shortly after the 'tracer' is injected and shows any areas where there is increased blood flow. The second part is done 3-4 hours later when the tracer has moved from the blood to the bones. This part allows us to see if there is any increased uptake in bone which might indicate inflammation. During the scan, your child has to lie very still on a table and a machine with an arm-like device which holds the camera passes over your child's body. This doesn't hurt. It takes about 30 minutes to scan the whole body. If your doctor asks for just one area to be scanned, this takes less time.

Joint injections

A joint injection may be done to collect some of the fluid from the joint to check that there is no infection. Joint injections may also be done to inject medicine into the joint. This might be done when the other medication your child is taking is not controlling the arthritis well enough or, if your child has just one swollen joint, may be the only therapy required. In older children joint injections are done with the child inhaling nitrous oxide (laughing gas) to help reduce discomfort. Younger children (less than 7-8 years old) require a quick, light general anaesthetic. A joint injection involves inserting a needle into the joint space. The needle hurts a little, like any needle, but most children cope fairly well.

Drug infusions

Some medications used to treat arthritis are given as an infusion. These can be steroids in "pulse therapy" and some of the biologic agents. With drug infusions, the medicine is fed slowly into a vein through a plastic tube, which is inserted into the vein with a needle. EMLA or Angel cream may be used to numb the area where the needle is put in. It may take many hours for the all the medicine to go in. Your child will be able to watch television or play a computer game while this happens.

Bone densitometry

This test measures the thickness and strength of the bones. Steroid medicines used to treat arthritis can cause the bones to become thin, if they are high doses or taken for a long time. Bone densitometry can monitor for this side effect. Your child will lie down on a table that has an arm-like piece of equipment above it. The densitometer uses a small amount of X-rays to measure how thick the bones are. This is not painful and your child will not feel anything. It can take 10 to 30 minutes. Your child will be asked to lie still for this time.

Echocardiogram

An echocardiogram is an ultrasound of the heart. Occasionally this is used to check if there is inflammation around the heart which can occur in systemic arthritis. For this ultrasound, your child will lie down on a bed. A gel is squirted on your child's chest, over the heart. The technician or doctor places a plastic ultrasound sensor on your child's chest and a picture of the heart appears on the screen. If the volume is up on the machine, there may be a whooshing sound, which is the sound of the heart beating. An echocardiogram does not hurt.

Magnetic Resonance Imaging (MRI)

Occasionally MRIs are used to give a very detailed view inside the joints. This can be helpful to check if the joint is damaged. The MRI machine is a large box with a tunnel in the middle, where your child has to lie still until the picture is taken. This can take 40 to 60 minutes. Having an MRI does not hurt, but it may be frightening for some children to lie in the tunnel. The machine makes 'knocking' noises, and your child will wear headphones to make sure it is not too loud for them. Your child can bring music to listen to with the headphones. Younger children (less than 7 or 8 years old) usually require a general anaesthetic as most are not able to lie still for the time required to complete the scan, and some find the experience overwhelming. Occasionally, if more detailed information about the joints is required, a dye is injected into a vein to show more detail in the picture.

Surgery

Most children with arthritis do not need surgery. However, for some children surgery may free up the movement of a joint and reduce pain. An orthopaedic surgeon (someone who operates on bones) would do the surgery.

Notes
