Juvenile Idiopathic Arthritis

Arthritis NZ
Mateponapona
Aotearoa

About 1000 children in New Zealand have arthritis

DID YOU KNOW

Juvenile Idiopathic Arthritis is a form of arthritis that affects children aged 16 and under

JIA is more common in girls than in boys

WHAT IS JUVENILE IDIOPATHIC ARTHRITIS (JIA)?

Juvenile - young people get this type of arthritis

Idiopathic - we don't know what the exact cause is

Arthritis - means inflammation of joints

Causes of JIA

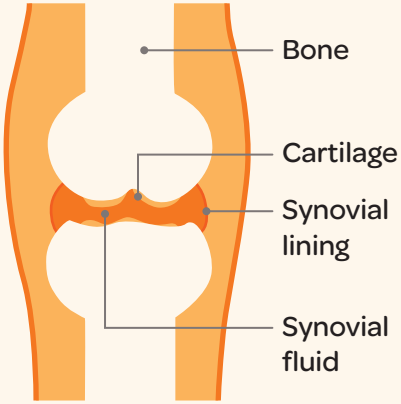
The cause of JIA is unknown. JIA can involve more than one family member, or there can be no family history at all. Research suggests that a genetic predisposition and environmental triggers such as an infection can play a role in the development of JIA.

What happens in Juvenile Idiopathic Arthritis?

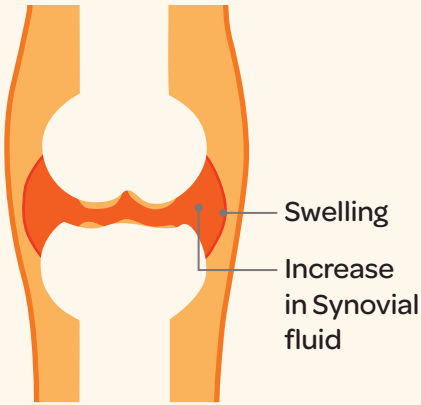
JIA is an autoimmune condition where the immune system becomes overactive and attacks normal healthy cells of the body, particularly the joints.

In a healthy joint, the synovial membrane surrounds the joint and produces fluid that provides nutrition to the cartilage as well as lubrication and cushioning to the connecting bones.

In JIA, the synovial membrane becomes inflamed, producing more fluid and the joint may become swollen, stiff and painful. If inflammation is not treated, it can damage the joint, the cartilage and the bone.



NORMAL JOINT



SIGNS OF ARTHRITIS

Types of Juvenile Idiopathic Arthritis

JIA IS AN UMBRELLA TERM WITH 5 MAIN SUB-GROUPS

OLIGOARTHRITIS:

- Most common type of JIA affecting about 50-60% of children with arthritis
- Often begins between 2 and 4 years of age. Is more common in girls than in boys.
- Initially affects four joints or less. About 20-30% of children will have more joints affected after 6 months, known as Extended Oligoarthritis.
- Children with this type of arthritis are at higher risk of developing eye inflammation (iritis or uveitis). This usually has no symptoms, so regular eye checks are important.

POLYARTHRITIS:

- Affects 20-30% of children with arthritis
- Is more common in girls than in boys
- Can begin at any age
- Affects five or more joints
- A blood test for Rheumatoid Factor (RF) helps to determine the long-term outcome for this sub-group. About 5% of all children with JIA are RF positive. This form more commonly affects teenage girls and is more likely to continue into adulthood.

Less common types of JIA

ENTHESITIS-RELATED ARTHRITIS (ERA):

- Often includes inflammation where the tendon meets the bone (enthesitis)
- Typically affects larger lower limb joints, hips and lower back
- Affects boys more than girls
- Sometimes can continue into adulthood and affect the spine
- Usually associated with HLA B27 gene

SYSTEMIC:

- Affects boys and girls equally
- Usually associated with fevers and rashes
- Joints may or may not be affected
- May cause inflammation of the internal organs

PSORIATIC ARTHRITIS:

- Is associated with psoriasis in the child or a first-degree relative
- Psoriasis is a scaly skin condition which may also involve the nails
- The arthritis may be in any number of joints

Symptoms of Juvenile Idiopathic Arthritis

The nature of JIA is that it can come and go with periods of 'remission' (no active disease) and periods of 'flare' (reappearance of active disease).

SYMPTOMS MAY INCLUDE:

Joints that are swollen, stiff (especially in the morning), warm to the touch, and are often painful

Reduced joint movement (e.g. limping, unable to make a fist)

Reduced physical activity levels that can lead to muscle weakness

Difficulty with day to day functioning (e.g. getting dressed, participating fully at school)

Tiredness, loss of appetite and/or poor sleep due to ongoing pain/inflammation

High fever (for systemic JIA)

Skin rash (for systemic and psoriatic)

DIAGNOSIS:

There is no single test to confirm a diagnosis of JIA, and reaching a diagnosis may take time while other possibilities are excluded

The diagnosis of JIA is based on medical history, physical examination and laboratory tests. Sometimes imaging (e.g. x-ray, ultrasound, MRI) and other tests are used.

If JIA is suspected, a referral is made by your GP to a Paediatrician, who will then liaise with a Paediatric Rheumatologist

Medical investigations may include:

BLOOD TESTS:

- Erythrocyte Sedimentation Rate (ESR) and C-Reactive Protein (CRP) are tests that show how much inflammation there is in the body
- FBC (Full Blood Count) - checks the blood cells, and provides a wide range of information
- RF (Rheumatoid Factor) - an antibody detected by a blood test. This is only required with certain subtypes.
- ANA (Anti-Nuclear Antibody) can be an indicator for the risk of developing eye problems
- LFTs (Liver Function Tests) - checks how well the liver is working and can show signs of liver inflammation or damage
- Other blood tests may be required when starting medications e.g. liver and kidney function and immunity

XRAYS:

- To check for bone damage and can exclude other problems

ULTRASOUND AND MAGNETIC RESONANCE IMAGING (MRI):

- These scans provide a detailed view of the joints and help identify signs of inflammation

ASPIRATION OF A JOINT:

- Is where the fluid from a swollen joint is removed to check for abnormalities such as infection

Some tests may be ongoing or have to be repeated several times. This helps the doctor look for changes to your child's symptoms over time.

WHAT IS UVEITIS AND WHY DO YOU NEED TO KNOW ABOUT IT?

Uveitis is inflammation inside the eye. The type most commonly associated with JIA typically has no symptoms until very late, therefore regular monitoring is **very important**. The exception is ERA which is associated with a different type of uveitis and these children may experience painful, red eyes.

Management

The overall goal of treatment is to control inflammation and allow your child to be symptom free as much as possible. There is no cure for JIA, however successful management can be achieved for the majority and most children can lead an active and normal life.

MANAGEMENT MIGHT INCLUDE:

- Medications to control inflammation, manage pain and potential medication side effects
- Education to help you understand the diagnosis and treatment plan
- Exercises and stretches to maintain function
- Support returning to normal activities including exercise, sport, school, hobbies
- Other non-medical strategies to help with pain management, sleep and fatigue
- Social and psychological support

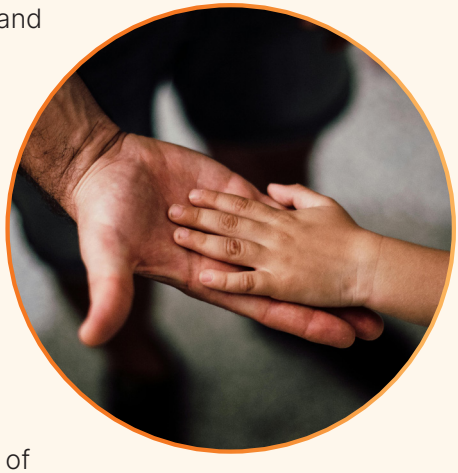
Within New Zealand a publicly funded, multidisciplinary team specialising in JIA provide a range of treatments and supports to assist in reaching management goals. Referral to this service is through your local paediatrician.

THIS TEAM INCLUDES:

- Paediatric Rheumatologist (doctor specialising in children with JIA)
- Paediatric Rheumatology Nurse Specialist
- Paediatric Rheumatology Physiotherapist
- Paediatric Rheumatology Occupational Therapist

OTHER LOCAL PROFESSIONALS:

- GP
- Nurse (GP practice, day stay unit and children's out-patients)
- Ophthalmologist (specialist eye doctor)
- Podiatrist/orthotics service
- Dietitian
- Pharmacist
- Social worker
- Psychologist or counsellor
- Teachers



Each child will have different members of their team depending on their needs. This team will work together with you and your child to plan care and make the best decisions for your child.

Treatment for JIA

MEDICATIONS

NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS)

NSAIDs such as Ibuprofen and Naproxen reduce inflammation and help control the symptoms of JIA, such as swelling, stiffness and pain.

CORTICOSTEROIDS (STEROIDS)

Corticosteroids (steroids) are hormones that are produced naturally in the body by the adrenal glands. When given as a medicine, steroids can provide rapid and powerful reduction of inflammation in children with JIA. Steroids can be given in different ways, including by an injection directly into the affected joint, injection into a muscle, through a drip into a vein or by mouth. Ideally, steroids are limited to reduce the risk of undesirable side effects associated with their long-term use.

DISEASE MODIFYING ANTI-RHEUMATIC DRUGS (DMARDS)

DMARDs such as Methotrexate, can control JIA by reducing the over-activity of the immune system. These medicines can take 8-12 weeks to reach their maximum effectiveness. They are often used in combination with an NSAID or corticosteroid.

BIOLOGICAL DMARDS

These medications are used for children with JIA that is not controlled by DMARDs alone. They work by suppressing the immune system, targeting specific proteins which cause inflammation.

Regular blood tests are required to ensure safety when on medications (except NSAIDs).

* Remember to let your doctor know about other prescribed medications or natural therapies that your child is taking as they may interact with their arthritis medications.

EXERCISE

Keeping active is vital for the good health of all children, including those with JIA. Sometimes specific exercises or stretches may be required to help your child return to full function (e.g. sport, PE) following a flare in their JIA. Your child's physiotherapist can advise on suitable exercises.

FATIGUE MANAGEMENT

Some children with JIA experience fatigue, which may be related to either the condition or the treatment. Fatigue can affect concentration, mood and participation in daily activities. Small adjustments can make a big difference, such as having a consistent sleep routine. Encourage your child to pace themselves by spacing activities across the week, prioritise what matters most, and stick to a predetermined plan. Plan rest breaks between tasks and include low-stimulation activities such as reading, music or art to help them recharge. Try to avoid daytime naps, as these disrupt night-time sleep. Your Occupational Therapist or Paediatric Rheumatology team can provide practical strategies to support energy management at home and school.

PAIN MANAGEMENT

The majority of children with JIA will not experience persistent pain once they commence treatment. If your child is experiencing ongoing pain, helpful strategies may include using heat or ice packs, relaxation, distraction, or deep breathing techniques. If pain is affecting their daily life there are strategies that help support wellbeing. These include participating in regular movement and continuing to take part in enjoyable activities, including sport. There may be situations when pain medication

is indicated. Talk to your local health provider or Paediatric Rheumatology team for individualised advice and support.

NUTRITION

Maintaining a healthy, balanced diet inclusive of all food groups is the most beneficial way to support your child's overall health and well-being. There is no recommended diet to either prevent or treat JIA.

PSYCHOLOGICAL SUPPORT

Living with any chronic health condition can have a psychological impact. For children with JIA this may be early in the diagnosis, or related to a specific issue (e.g. injections). If you have concerns, discuss these with your GP or Paediatric Rheumatology team. There are also support groups who can provide information and support such as Arthritis NZ.

HOW I CAN HELP MY CHILD?

- Well informed, supported and supportive parents are an essential part of management, and great role models
- Don't be afraid to ask your child's health team questions. Write them down as you think of them, ready for the next time you talk.
- Make sure you understand the medicines your child is taking and why. Be aware of any potential side effects you need to watch for.
- If you have concerns about any aspect of your child's treatment, don't be afraid to discuss this with your health team
- Discuss with your team how to recognise and manage a flare of JIA
- Encourage your child to return to their normal activities as directed by your team
- Explain to family, friends and teachers at your child's school what JIA is and how it might impact on your child's daily life
- Encourage maintenance of school attendance and normal childhood routines
- Encourage your child to be involved in decisions and day-to-day management of their JIA, especially as they grow older
- Most importantly, don't be afraid to reach out for help and support

Hannah at 7 years old

“Learning that our daughter had an autoimmune disease felt overwhelming. But having a diagnosis was also a relief. We finally had a way forward.

Our little girl is now almost 7 and thriving, living with JIA.“

WHERE CAN I LEARN MORE?

www.arthritis.org.nz

Call **0800 663 463** and speak to our Arthritis Assist team.
Email us at **info@arthritis.org.nz**

Social media

Support us

Help support people living with arthritis
Scan to donate and make a difference today, or go to arthritisnz.org.nz

Where can you get more information and support?

Arthritis UK
www.arthritis-uk.org

Healthify
www.healthify.nz

Kidshealth
www.kidshealth.org.nz

Starship
www.starship.org.nz/directory-of-services/rheumatology/

Printo
www.printo.it/pediatric-rheumatology/ (for latest research)

Arthritis Australia
www.arthritisaustralia.com.au