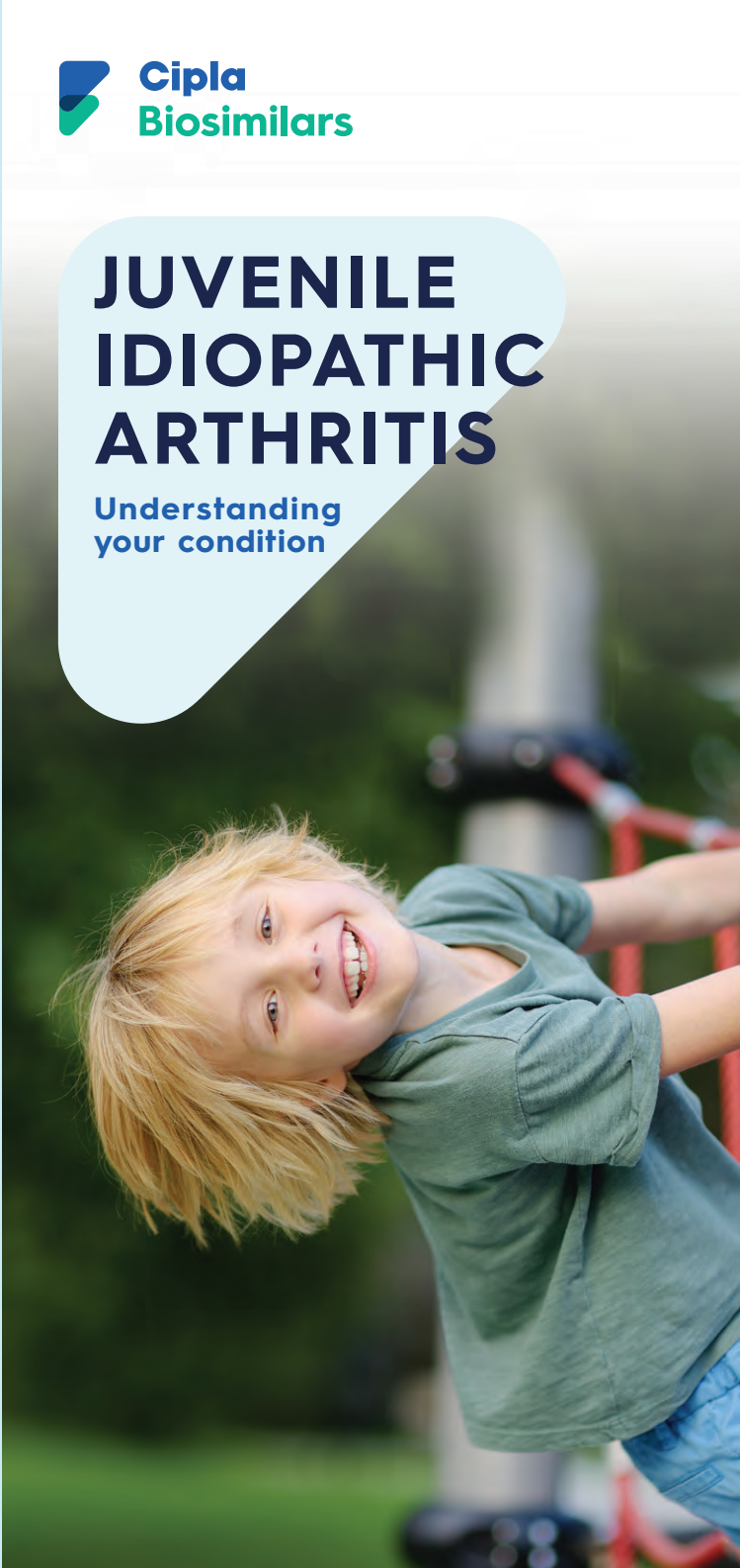
Cipla Biosimilars

JUVENILE IDIOPATHIC ARTHRITIS

Understanding your condition



What is Juvenile Idiopathic Arthritis?

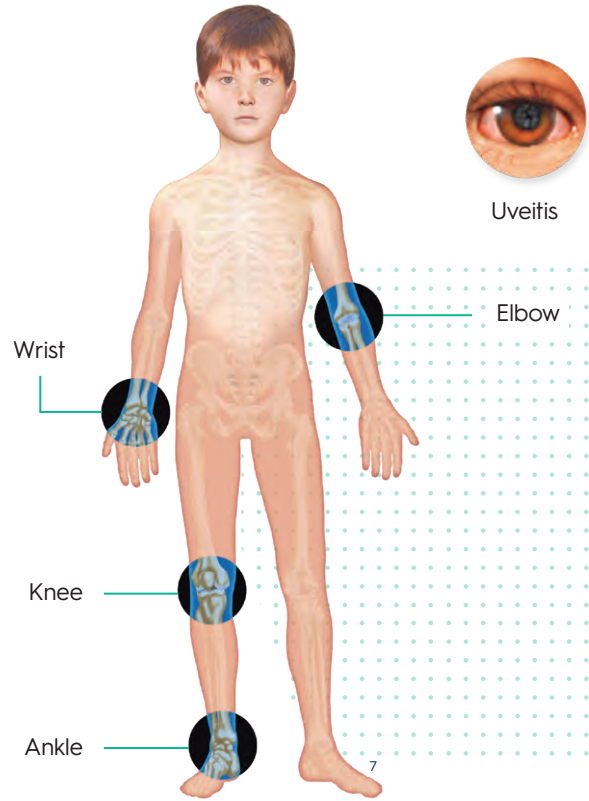
Juvenile idiopathic arthritis (JIA) is a heterogeneous group of diseases that a ect **children under 16 years of age** and cause sti or swollen joints and pain that last 6 weeks or more[1,2,3].

Types of Juvenile Idiopathic Arthritis

The International League of Associations for Rheumatology (ILAR) classifie JIA into seven di erent types. Although chronic arthritis is mandatory for all types, they have distinct extraarticular and systemic clinical manifestations, genetic predispositions, and disease course[2,3]:

- **Oligoarthritis**
- **Juvenile enthesitis-realted arthritis**
- **Polyarthritis** (it has 2 subtypes)
- **Juvenile psoriatic arthritis**
- **Systemic**
- **Others**

Oligoarthritis[2,3,5]

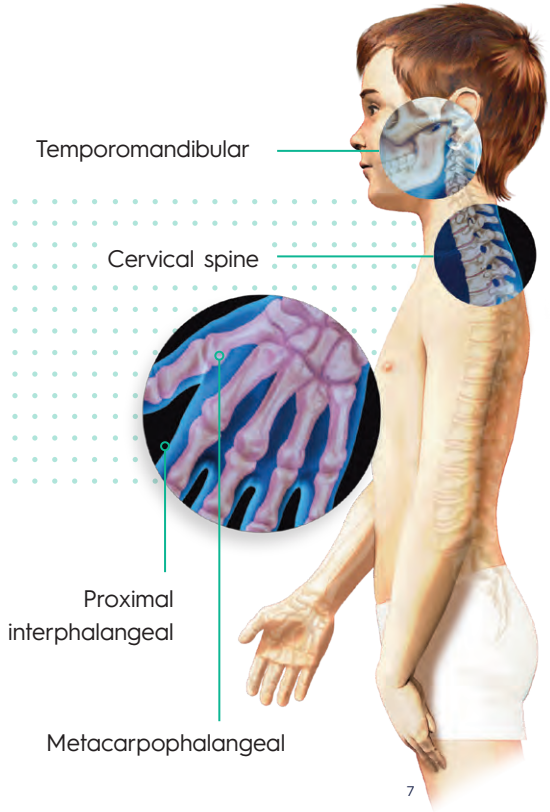


Arthritis a ecting 1-4 joints during the fi st 6 months of disease.

Juvenile enthesitis-related arthritis[2,3]

Arthritis usually involving the vertebral column, hips and legs.

Polyarthritis[2,3] (it has 2 subtypes)



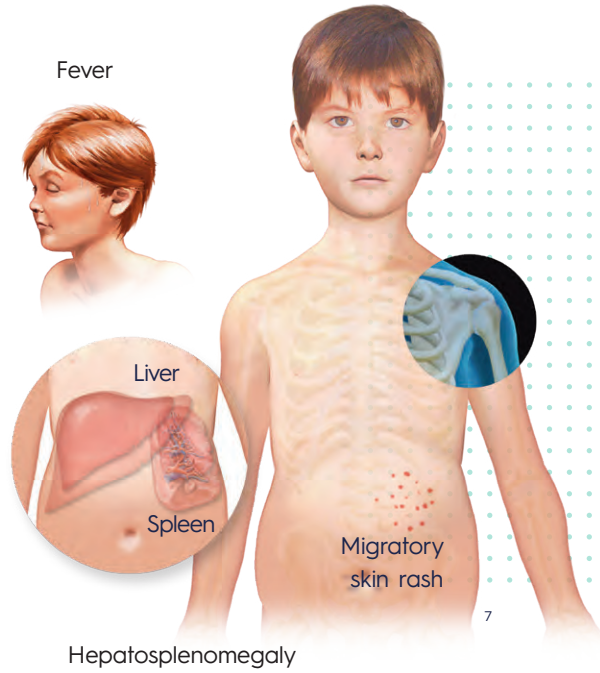
Arthritis a ecting 5 joints or more during the rst 6 months of disease and:

- ✓ **Negative test for rheumatic factor (RF⁻ Polyarticular JIA)**
- ✓ **Positive test for rheumatic factor (RF⁺ Polyarticular JIA)**

Juvenile psoriatic arthritis[2,3]

Arthritis with simultaneous cutaneous lesions compatible with psoriasis.

Systemic[2,3]



Arthritis a ecting more than 1 joint with, or preceded by, fever of at least 2 weeks of duration. It is accompanied by at least one of the following: skin rash, lymph node enlargement, hepatomegaly and/or splenomegaly, or serositis.

Undi erentiated arthritis[2,3]

Those arthritic syndromes that cannot be classified into the previous categories.

What are the signs and symptoms of Juvenile Idiopathic Arthritis?

JIA may be difficu to diagnose because **some children may not complain of pain at fi st and joint swelling may not be obvious[4].**

Typical symptoms are:

Joint pain, stiffn ss and swelling[1]

- The joint symptoms occur in all types of JIA[1].
- The joints a ected depend on which type of IJA the child has[1].
- Some children have a sti or swollen joint that does not hurt[1].

Limping[4]

Reluctance to use an arm or leg[4]

Reduced activity level[4]

Dificul y with fin motor activities[4]

Other symptoms can include:

- **Fever**
  It is the most common symptom of systemic JIA. Fever usually occurs daily at the same time for 2 weeks or more[1,5].
- **Rash**
  It is the second typical extra-articular manifestation in children who have systemic JIA. The rash is usually described as a small salmon pink patches. It occurs with fever spikes but may persist when fever is resolved[1,5].
- **Eye redness (uveitis)**
  It is the most serious complication for all children with JIA. Uveitis is usually painless, but can lead to vision loss[1,5].

What causes Juvenile Idiopathic Arthritis?

The cause and trigger of JIA remain unclear, as it **is not known what causes the immune system to malfunction in JIA[2,4].**

It is thought that the abnormal immune response is triggered by environmental factors in genetically susceptible individuals[2].

There is **strong evidence for a genetic component** to the aetiology of JIA, being the strongest genetic association with genes of the major histocompatibility complex (MHC), which are central to immunity and and inflamma ory processes[3,5].

All types of JIA lead to a final common pathway: **thickening and inflammation of the joint lining[3].**

How will my doctor diagnose my disease?

Physical exam and medical history

Diagnosis of JIA based on physical exam and medical history[4]. The following items are essential for diagnosis and classification of JIA[2]:

- Age of onset
- A ected joints
- Duration of arthritis
- Associated symptoms or diseases
- Physical and musculoskeletal examination

Laboratory tests

Chlidren often test negative for blood tests that are commonly found in adults with rheumatoid arthritis such as rheumatoid factor (RF)[4]. Other inflamma ory markers evaluated are[2]:

- Erythrocyte sedimentaiton rate (ESR)
- C-reactive protein (CRP)
- Human leukocyte antigen (HLA)-B27

Imaging

Imaging serves to improve the certainty of a diagnosis of JIA and to evaluate joint damage[2].

- X-rays
- Ultrasound (US)
- Magnetic resonance imaging (MRI)

What are the treatment options?

The best care for children with arthritis is provided by a **paediatric rheumatology team** that has extensive experience and can diagnose and **manage the complex needs of the child and family** most e ectively[4].

The overall treatment goal is to control symptoms, prevent joint damage, and maintain function[4].

Pharmacological treatment

NSAIDs

Non-steroidal anti-inflamma ory drugs are the most commonly used medicine in JIA as they have analgesic and anti-inflamma ory properties[5].

Corticosteroids

When only a few joints are involved, a steroid can be injected into the joint before any additional medications are given. Steroids injected into the joint do not have significan side e ects[4].

DMARDs

Disease-modifying anti-rheumatic drugs (DMARDs) are added as a second-line treatment when arthritis involves many joints or does not respond to steroid joint injections[4]. Some DMARDs are known as "biologics", and all of them may cause side e ects that need to be monitored and discussed with the paediatric rheumatologist treating your child[1,4].

Non-pharmacological treatment

Physical and occupational therapies

Physical and occupational therapy can improve children's quality of life by teaching them ways to stay active and how to perform daily tasks with ease[6].

Hot and cold treatments

Heat pads or warm baths are useful for soothing sti joints and tired muscles. Cold is useful for acute pain[6].

What can I do to manage my disease?

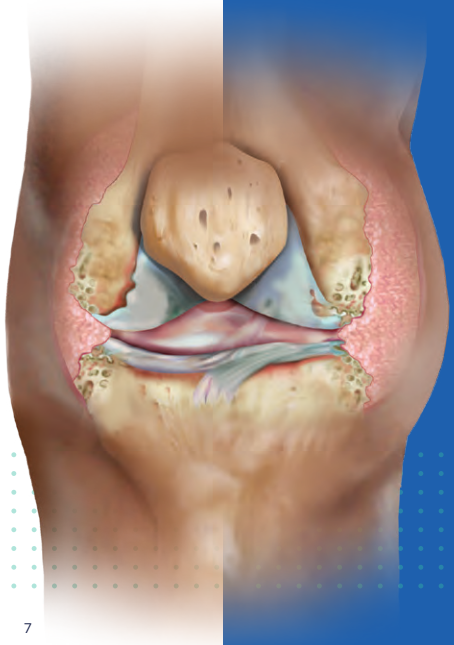
Children with JIA should attend school, participate in extra-curricular and family activities, and live life as normally as possible[4].

Exercicing regularly[6]

- Regular exercise helps ease joint stiffnes and pain.
- Low-impact and joint-friendly activities such as walking, swimming, biking and yoga are the best option.
- However, children with well-controlled disease can participate in just about any activity they wish.

Having a healthful diet[6]

- There is no special JIA diet, but consumption of some foods and avoidance of others may help to reduce inflammation
- Foods to include in your child diet: fatty fis , fruits, vegetables, whole grains and extra virgin olive oil among others.
- Foods to avoid: high-fat, sugary and processed foods.



Balancing activity with rest[6]

- When JIA is active it is important to balance light activity with rest.
- Rest helps reduce inflammation and fatigue.
- Taking breaks throughout the day protects joints and preserves energy.

Managing stress and emotions[6]

- Children and teens with JIA are more likely to get depressed because they are living with a chronic disease.
- It is important to have a strong support system of friends and family that can provide emotional support during tough times.

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