

JUVENILE IDIOPATHIC ARTHRITIS (JIA)

What is Juvenile Idiopathic Arthritis (JIA)?⁸

Juvenile idiopathic arthritis (JIA) is a disease that causes children's joints to become stiff, swollen, painful, and warm to touch (inflammation).

It can negatively impact their lives, even into adulthood.

Symptoms must start when the child is younger than 16 years, occur for at least 6 weeks, and have no other known cause.

What Causes Juvenile Idiopathic Arthritis?¹

No one knows the exact cause, but it happens when a child's immune system becomes overactive and attacks their joints.

It causes problems with a child's growth, ability to move, and can cause permanent damage to body parts, such as knees, fingers, wrists, elbows, and other joints.



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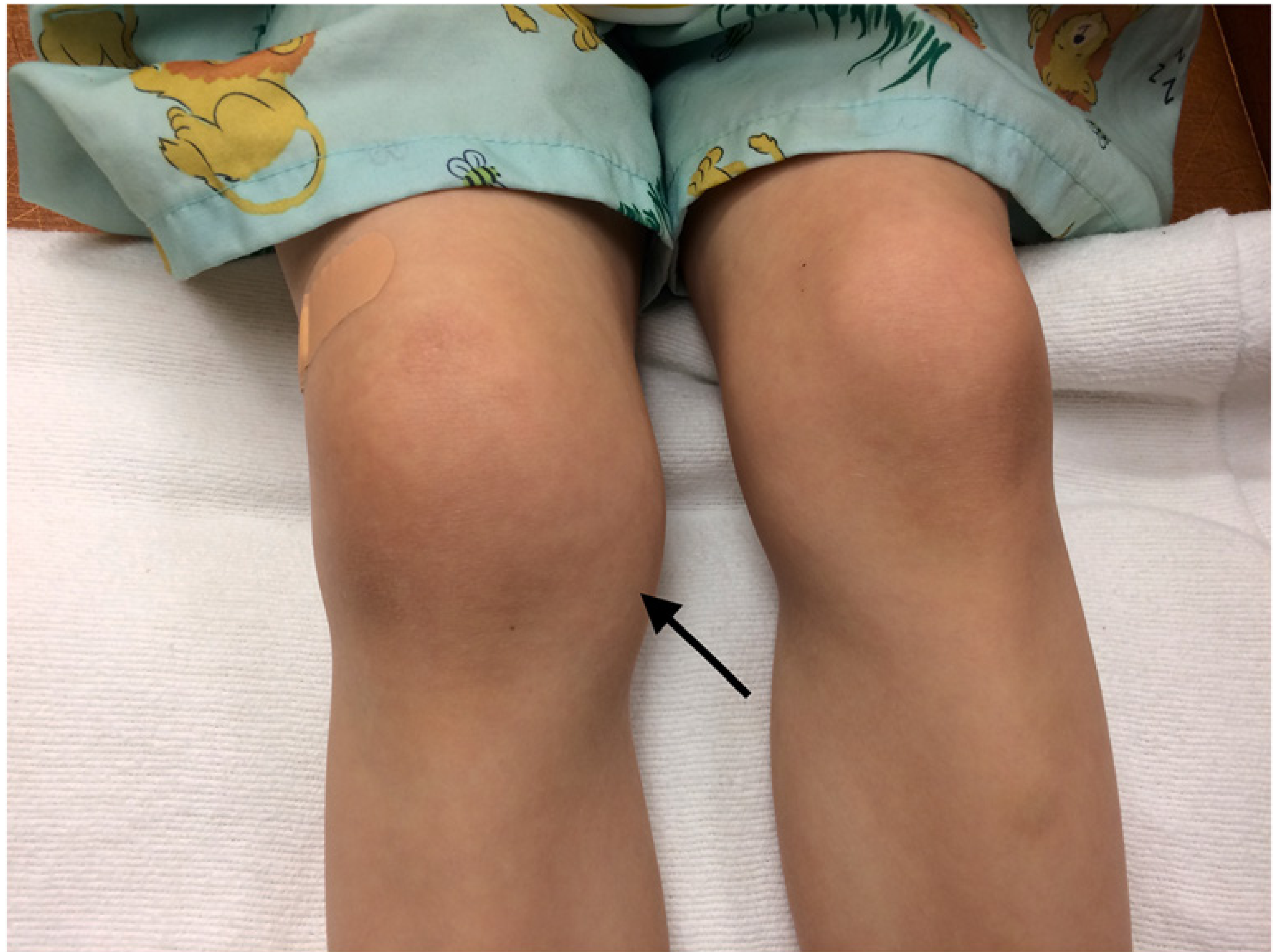
Are there Different Types of Juvenile Idiopathic Arthritis?⁸

1. Oligoarticular
2. Polyarticular RF negative
3. Polyarticular RF positive
4. Enthesitis-Related
5. Psoriatic
6. Undifferentiated
7. Systemic

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Oligoarticular⁸

- Mostly affects kids between 1-3 years old
- Typically affects the knees and ankles



(Guardado & Sergent, 2022)

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Polyarticular RF Negative⁸

- Affects 5 or more joints
- A blood test called “RF” is negative
- Usually affects kids 1-3 years or 9-14 years
- Typically affects knees, ankles, and wrists
- This is the most common type that can involve the jaw and neck

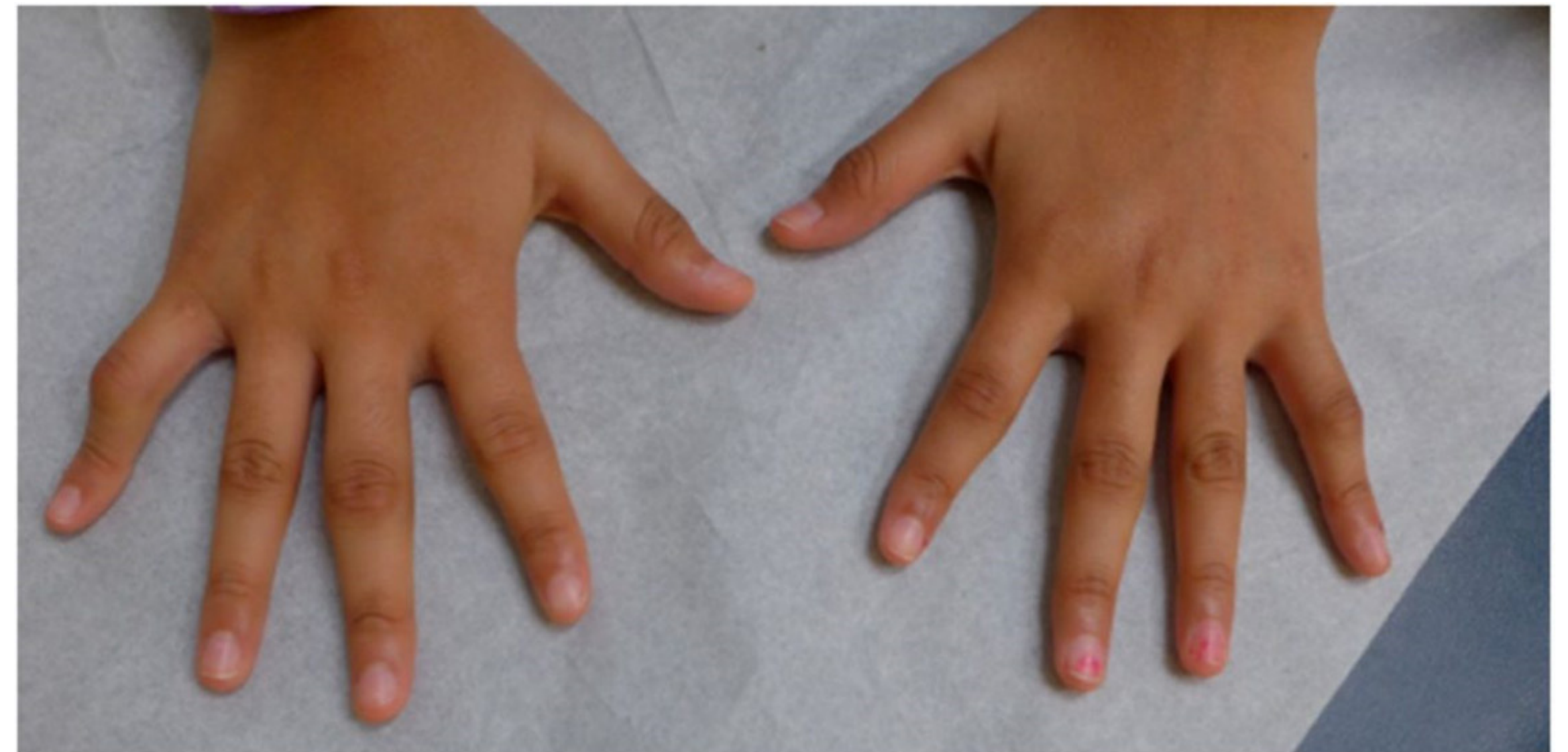


(Menchel, 2014)

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Polyarticular RF Positive⁸

- Affects 5 or more joints
- A blood test called “RF” is positive
- Usually affects kids 9-11 years old
- Can affect wrists, elbows, hips, knees, or ankles
- This is the most common type that can involve the fingers

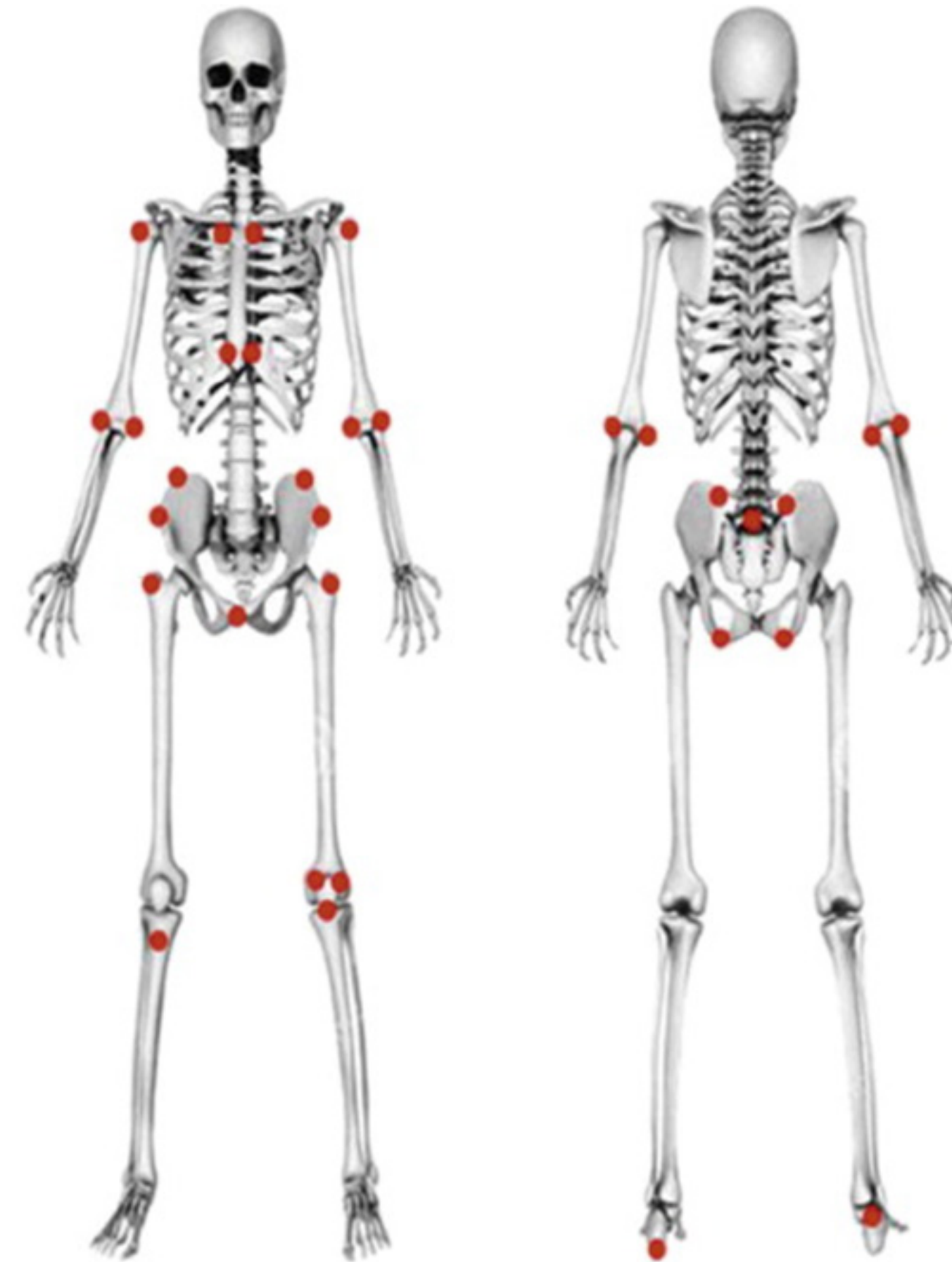


(Singh, 2020)

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Enthesitis-Related⁸

This type involves pain, swelling, and sometimes warmth on the parts of the body where a tendon or ligament attaches to bone



(Petty et al., 2021)

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Psoriatic⁸

- This type of JIA happens when children also have a skin rash called psoriasis. Sometimes their nails may look wrinkled and their fingers and toes might be swollen.
- A child can have this type if their parents or siblings have this rash, even if they do not.



(American Academy of Dermatology Association, 2023)

(Ngan, 2017)

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Undifferentiated⁸

Some children have arthritis that either does not fall into one particular category or falls into more than one.

Systemic (sJIA)⁸

- This type is different than the other types of JIA
- This can happen when children have:
 - Fevers every day for at least 2 weeks
 - A pink rash that comes and goes
 - Swelling in the lining around their lungs, heart, or belly
 - A spleen or liver that is bigger than normal
 - Lumps or bumps in their neck, armpit, or groin area



(Russo & Katsicas, 2019)

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How is this Diagnosed?⁸

- There is not one particular test that can be done
- Pictures of joints, such as X Rays or MRIs, can be helpful to see inside of joints that may be tricky to feel whether or not there is fluid inside
- Blood work
 - There are certain things that our immune system makes, called antibodies, which are usually used to fight off bad germs. Knowing which antibodies a child has, can be helpful in choosing the best medication for that particular child
 - Blood tests that check for inflammation are usually normal, except for sJIA, where they are usually high
 - Blood counts and kidney/liver numbers are helpful in choosing medications

Is there Anything that Needs to be Ruled Out?⁸

There are other reasons children can have swollen and painful joints

- Infection
- Injury
- Lyme Disease
- Thyroid conditions
- Celiac Disease
- Inflammatory Bowel Disease
- It can also happen after a child has been sick

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How is Juvenile Idiopathic Arthritis Treated?³

- There is no cure for JIA, but there are medicines that can keep the joint pain and swelling away
- These medicines are called DMARDs (disease-modifying antirheumatic drugs)
 - Examples: methotrexate, sulfasalazine, adalimumab, etanercept, infliximab
- The best medicine to use, depends on the type of JIA a child has
- Pain medicines that help with inflammation (ibuprofen, naproxen, etc.) are usually used first, but if a child's spine, jaw, or neck is affected, stronger medicines are needed ASAP
- Sometimes steroids can be injected directly into a child's knee, ankle, or other affected joint, which will help very quickly
 - This is most useful when there are less than 4 joints involved
- SJIA treatment is different
 - Examples of medicines: anakinra, canakinumab, tocilizumab (these are all injections)



Am I Alone in This?¹

JIA affects **1 in 1000 children** in the United States

The **most common cause** of acquired disability in childhood

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What else can we do in addition to medications?⁸

- Families can add ginger or tumeric to their child's diet, which naturally reduces swelling
- Families can limit red meat, which naturally increases swelling in the body
- Can also try yoga, swimming, massage, acupuncture



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Are There Other Healthcare Professionals I Should See?⁸

- **Physical Therapists and Occupational Therapists:** help children learn how to move their joints better
- **Mental health providers:** important because JIA can potentially cause issues for a child's entire life, especially if it is not treated appropriately
- **Eye doctor:** extra important, because children who have pain and swelling in their joints (inflammation) can also have inflammation in the back of their eyes that does not cause any symptoms at first
 - *If this is not treated, can lead to permanent vision loss*



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References

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