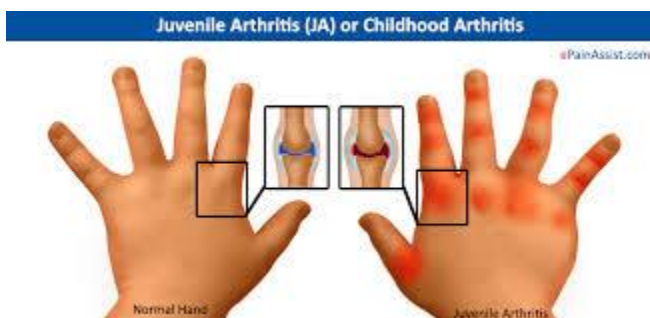


Juvenile Arthritis

Juvenile arthritis also known as pediatric rheumatoid disease is a general term used to describe the inflammatory and rheumatic diseases that develop in children under the age of 16. It is an autoimmune disorder which causes joint inflammation, swelling, pain, and tenderness, but some types of JA have few or no joint symptoms or only affect the skin and internal organs.

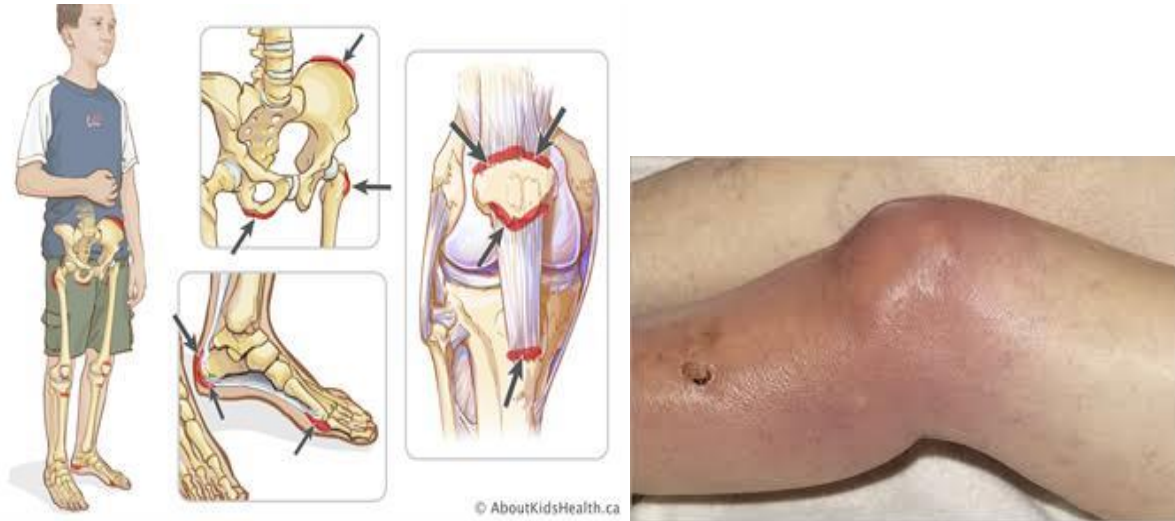
This condition affects nearly 300,000 kids and teens in the United States.



Most types of Juvenile Arthritis are autoimmune or inflammatory diseases. This means that the immune system which is supposed to fight against foreign invaders like viruses, bacteria, etc. get confused and release inflammatory chemicals that attack the body's own healthy cells and tissues. The most common

symptoms of juvenile arthritis are joint swelling, pain and stiffness that may last for 6 weeks or longer.

The exact causes of JA are unknown, but research so far is pointing to certain genes, which when activated by virus or bacteria may be the cause of JA.



Some of the joints affected by JA.

A septic arthritis joint

The most common types of Juvenile Arthritis include:

1. Juvenile Idiopathic Arthritis:

which includes the following sub types:

- a. Systemic onset - Still's Disease A severe version of Juvenile idiopathic arthritis (JIA) that occurs in children. It usually begins with fevers and rashes as well as inflammation in other parts of the body as well as the joints. Adults can have the same condition although it is much less common.
- b. Oligoarthritis – Affecting fewer than 4 joints.
- c. Polyarthritis – affecting 5 or more joints.
- d. Enthesitis-related – Causes pain and swelling in the joints and at the point where the tendons and ligaments attach to the bone (entheses)
- e. Juvenile psoriatic arthritis – inflammation of the joints that occur in some children with psoriasis (a skin condition).
- f. Undifferentiated – A type that does not fit into any of the above categories.

2. **Juvenile Myositis:** - An inflammatory disease that causes weakness. There are 2 types: juvenile polymyositis and juvenile dermatomyositis. These also causes rash on the eyelids and knuckles.
3. **Juvenile Lupus:** - An autoimmune disease that can affect the joints, skin, internal organs (heart, kidney, lungs) and other areas of the body. The most common type is Systemic lupus Erythematosus (SLE).
4. **Septic arthritis** – Arthritis caused by an infection in the joints.
5. **Enteropathic arthritis** – arthritis that can occur with inflammatory bowel disease.
6. **Juvenile Scleroderma:** - Scleroderma means “hard skin,” and it describes a group of conditions that cause the skin to become tight and hard.
7. **Vasculitis:** - This type of disease causes inflammation of the blood vessels which can lead to heart complications. Kawasaki disease and Henoch-Schonlein purpura (HCP) are the most common types in kids and teens.
8. **Fibromyalgia:** - This is a chronic pain syndrome that can cause widespread muscle pain and stiffness, along with fatigue, disrupted sleep and other symptoms. It is more common in girls.

Some symptoms and Health Effects of JA:

General – High fever.

Growth Problems – Juvenile Arthritis can interfere with the child’s growth and bone development.

Lymph nodes – swelling and pain in the lymph nodes.

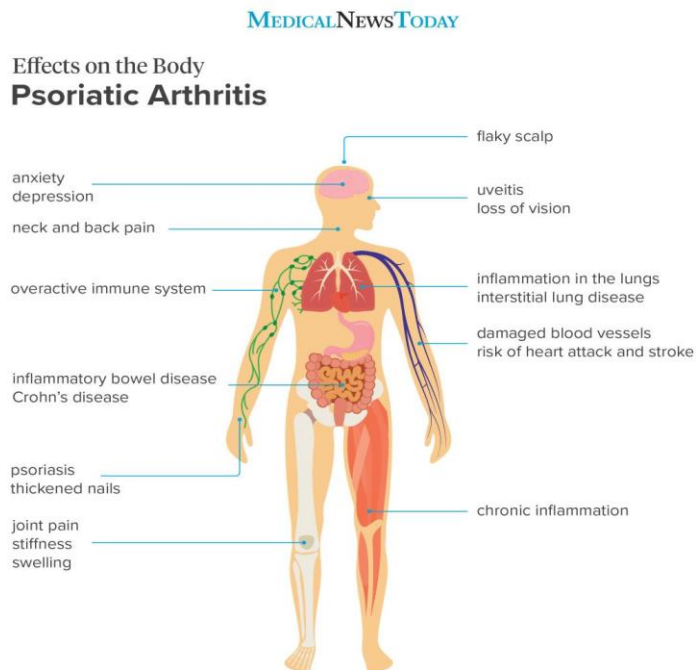
Joints - Joints may look red, swollen and feel stiff, painful, tender and warm to touch, causing difficulty with movement or completing everyday tasks. Joint symptoms may become worse after waking up or staying in one position too long.

Skin – Skin may become scaly, have a red rash (psoriasis), spotted pink rash, butterfly shaped rash across the bridge of the nose and cheeks (lupus) or thick, hardened patches of skin (scleroderma).

Eyes – Dryness, pain, redness, light sensitivity, poor vision.

Internal organs – Organs such as the digestive tract (diarrhea, bloating), lungs (shortness of breath), and the heart (irregular heartbeat). Other symptoms can

include fatigue, loss of appetite, fever spikes. Symptoms may improve or disappear completely for periods of time and may reappear at any time.



Painful and inflamed vertebrae

Diagnosis:

The diagnosis is made by a pediatrician or a rheumatologist. Apart from a family history and physical exam to look for external symptoms, laboratory tests, radiologic imaging; x-rays, CT scans and MRIs are also obtained to make a definitive diagnosis.

Treatment:

There are several types of medications used to treat JA. Some control the disease activity and others relieve the symptoms. Your child's doctor will prescribe what is best for your child's condition and may prescribe other therapies such as occupational or physical therapy to decide the best exercises and protective equipment to help protect the joints and keep them in a good functional condition.

There is no cure for JA. But with an early diagnosis and aggressive treatment remission is possible. The goals of treatment include:

1. Slow down or stop inflammation and prevent disease progression.
2. Relieve symptoms and control pain to improve quality of life.
3. Prevent / avoid joint and organ damage.
4. Preserve joint function and mobility for adulthood.
5. Reduce long term health effects.

References:

<https://curearthtitis.org/juvenile-arthritis/>

Medline plus.gov

Children's hospital.org