Pediatric Arthritis

If you are like most people, you probably associate arthritis—the set of health conditions that produce pain and stiffness in the joints—with advanced age. It may surprise you, then, to learn that pediatric or juvenile arthritis affects [more than 300,000 children](https://www.arthritis.org/about-arthritis/types/juvenile-arthritis/) and teens in the U.S. The term pediatric arthritis includes a wide variety of autoimmune and inflammatory diseases that affect the joints of youngsters.

There are many kinds of pediatric arthritis, each with its own causes and treatments. The most common types of pediatric arthritis are autoimmune disorders in which a dysfunction in the immune system occurs. The good news is that, in many cases, pediatric arthritis can go into remission for months, years, or the rest of your life.

# What Is Pediatric Arthritis?

Arthritis is a broad classification of health conditions that involve inflammation of the joints. The most common kinds of arthritis are osteoarthritis, a condition in which cartilage in the joints degrade, and rheumatoid arthritis, an autoimmune condition in which the immune system attacks joint tissue. There are more than a hundred varieties of arthritis.

Almost 23 percent of American adults have arthritis, but the number of children with pediatric arthritis is only about 0.1 percent. Pediatric arthritis can strike at any age, but it is more common after the first six months of life.

The most common types of pediatric arthritis include

* Juvenile idiopathic arthritis—this includes six subtypes and is an autoimmune disorder
	+ Oligoarthritis
	+ Polyarthritis
	+ Systemic
	+ Enthesitis-related
	+ Juvenile psoriatic arthritis
	+ Undifferentiated
* Juvenile dermatomyositis—this condition has symptoms that include muscle weakness and skin rash on the eyelids or knuckles
* Juvenile scleroderma—this disease features skin that tightens and hardens.
* Juvenile lupus—another autoimmune condition, juvenile lupus may affect joints, kidneys, blood, skin and other tissue.
* Kawasaki disease—this illness may inflame the blood vessels and cause heart problems.
* Fibromyalgia—most commonly diagnosed in puberty, fibromyalgia may produce stiffness, fatigue, disrupted sleep and painful aches.
* Mixed connective tissue disease—this condition is caused by elevated levels of the antibody anti-RNP.

In most types of pediatric arthritis, there is no clear cause, but heredity may play a strong role.

# Symptoms and Diagnosis

The symptoms of pediatric arthritis depend on the specific condition, but they typically include swelling or redness near the joints, stiffness and aches. Some conditions may present with fever, rash, fatigue or weight loss. However, in many cases, there are no symptoms of the illness at all, which is problematic because the earlier pediatric arthritis is detected and treated, the better the outcome.

In order to diagnose pediatric arthritis, your doctor may perform a variety of diagnostic tests to narrow down the specific arthritis condition including

* Blood count to measure white blood cells, red blood cells, and platelets
* Urine tests
* X-rays (to rule out bone fractures)
* MRIs
* Viral tests
* Lyme disease test
* Bone marrow test to determine if leukemia is present
* Erythrocyte sedimentation rate
* Rheumatoid factor
* Antinuclear antibody test
* Joint fluid and synovial tissue sampling

# Therapies for Pediatric Arthritis

There is no cure for most types of pediatric arthritis, but in most cases, the prognosis is relatively optimistic. Many children who successfully complete their course of treatment—along with ongoing self-care—may find themselves in complete remission for months or years at a time.

The specific therapies employed will, of course, depend on the type of pediatric arthritis. If the condition has been diagnosed later and there is some disease progression, or if the type of pediatric arthritis is particularly aggressive, then your doctor may recommend a more aggressive treatment plan. In general, however, treatment involves a combination of medications and exercise.

The ultimate goals of any treatment of pediatric arthritis is to relieve pain, diminish inflammation, prevent joint damage and improve joint function. The most common therapies used to achieve these goals include

* **NSAIDs**—nonsteroidal anti-inflammatory drugs or NSAIDs are medications used to relieve pain and swelling. The most commonly used NSAIDs are available without a prescription and include ibuprofen or naproxen (aspirin is also an NSAID but is not normally used to treat pediatric arthritis).
* **SAARDs**—SAARDs or slow-acting anti-rheumatic drugs also treat pain and swelling but may have more adverse side effects than NSAIDs, which is why they are only available by prescription. The most commonly used SAARDs include methotrexate and hydroxychloroquine.
* **Corticosteroids**—applied orally or by injection, steroids offer pain and swelling relief. Most physicians use steroids sparingly in children because side effects include slowed growth and weight gain.
* **Antimetabolites**—it may be necessary to use antimetabolites like methotrexate if other drug therapies like NSAIDs have proven ineffective. These drugs slow joint damage by limiting DNA synthesis which is necessary for disease progression.
* **Physical therapy**—at least initially, it may be necessary for you to see a physical therapist who can assist in maintaining joint strength and flexibility. A PT may use a variety of exercises as well as treatments like heat/cold, ultrasound or TENS.
* **Heat/cold**—your doctor may recommend that you perform hot or cold therapies at home to decrease stiffness or pain.
* **Exercise**—it is extremely important that you adhere to a vigorous exercise regime that increases muscle strength and joint flexibility. It is also important to minimize stress on your joints, so swimming may be an ideal exercise.
* **Healthy diet**—many children with arthritis have poor appetites which may impede recovery. In others, there may be weight gain due to inactivity or drug side effects. You and your doctor should closely monitor your weight and adjust your caloric intake accordingly.
* **Surgery**—it is very rare for surgery to be used as a treatment for pediatric arthritis, but it may happen if you do not respond to the drug regimen or if you were diagnosed late and your joints have deteriorated significantly. Depending on how your condition has progressed, your physician may recommend one or more of the following procedures:
	+ **Joint fusion—**immobilizes the joint to correct deformity
	+ **Joint replacement—**a prosthesis of metal, ceramic or plastic may be implanted
	+ **Synovectomy—**removes excess synovial tissue.

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