

Juvenile Idiopathic Arthritis

Juvenile idiopathic arthritis (JIA) is the term used to describe arthritis—**inflammation** (cellular damage) of the **synovium** (the lining of joints)—with onset before 16 years of age. Previously called juvenile rheumatoid arthritis, the name has been changed to reflect the difference between the **juvenile** (childhood) forms of arthritis and adult forms of arthritis. Although JIA is **idiopathic** (the cause is not known), it is likely the result of a combination of genetic, infectious, and environmental factors. Because arthritis in children may resemble the joint pain associated with infections, cancer, bone disorders, and other inflammatory disorders, these potential causes must be excluded before the diagnosis of JIA can be made. The October 5, 2005, issue of JAMA includes an article about treatment of JIA.

TYPES

JIA is categorized into 5 main types based on the number of joints involved during the first 6 months of disease and the involvement of other organs.

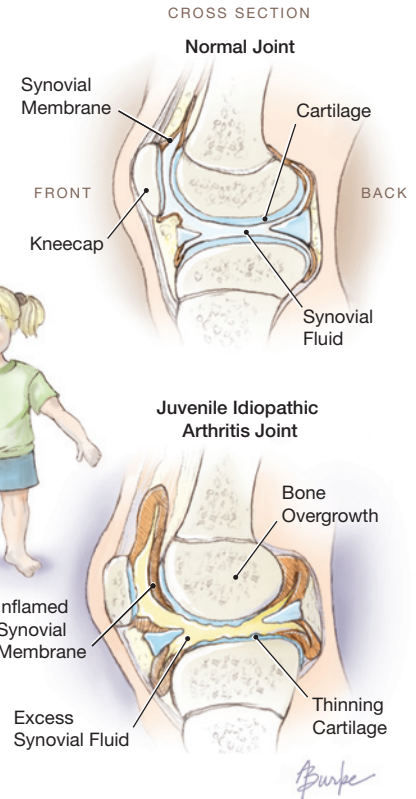
- **Oligoarthritis** accounts for approximately 50% of JIA and is defined as involvement of fewer than 5 joints. This type often includes **uveitis** (inflammation in the eyes).
- **Polyarthritis** requires arthritis in 5 or more joints.
- **Systemic arthritis** accounts for approximately 10% to 20% of JIA and is characterized by high fevers, rash, and inflammation of other organs, in addition to arthritis.
- **Enthesitis-related arthritis** often affects the spine, hips, and **entheses** (attachment points of tendons to bones) and occurs mainly in boys older than 8 years.
- **Psoriatic arthritis** includes children who have arthritis with the rash of psoriasis.

DIAGNOSIS

In addition to a complete medical history and physical examination, your child's doctor will order blood tests to exclude the other causes of arthritis, to measure ongoing inflammatory activity, and to determine whether any particular markers of arthritis are present, such as antinuclear antibody and rheumatoid factor levels. He or she may also obtain x-rays of affected joints to look for bony abnormalities or evidence of joint damage. Your doctor may refer your child to a **pediatric rheumatologist** (a doctor with specialized training in arthritis in children). Because inflammation in the joints may be associated with inflammation in the eyes, he or she may also refer your child to an **ophthalmologist** (eye specialist) for a detailed eye examination.

TREATMENT

Medications are available that both decrease the symptoms of joint pain and stiffness and alter the disease process, preventing permanent damage to the joint or joints. Appropriate medical therapy depends on the category of JIA and extent of joint involvement. Occupational and physical therapies may help maintain range of motion in joints and help your child with participation in activities at school and at home.



FOR MORE INFORMATION

- American College of Rheumatology
404/633-3777
www.rheumatology.org
- Arthritis Foundation
800/283-7800
www.arthritis.org
- Pediatric Rheumatology International Trials Organization
www.printo.it

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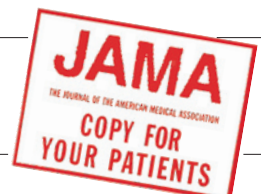
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1. McCulloch CE, Searle S. *Generalized, Linear, and Mixed Models*. New York, NY: John Wiley & Sons; 2000.
2. Murray D. *Design and Analysis of Group-Randomized Trials*. New York, NY: Oxford University Press; 1998.

"Manufacturing vs Repair" in Health Care

To the Editor: In his Commentary on efficiency in the health care industries, Dr Grove¹ provides an outside view, offering a business analogy that fails to consider that medical care is a repair service, not a manufacturing operation. Manufacturers prosper by carefully choosing their materials, procedures, and products. Medical care is stuck with faulty carbon-based people who walk in the door to receive US Food and Drug Administration–approved treatments. With his analogy, the questions to consider are how profitable Intel could have been if its core business was repairing failed Motorola chips, and how much more profitable a medical facility could become if it eliminated patients who, before they became ill, were drug abusers, alcoholics, smokers, or obese.

Business experts do not tout profit in repair. They build enough good units to afford burying their mistakes. Many microchips *fail*, not *fall*, off the assembly line. Cell phones are replaced, not repaired, with the common wisdom of "cheaper to buy a new one." That view cannot inform medical care.

People do want some things repaired—usually, their friends and family. Human repair is often expensive, and is entangled with emotions and feelings, values, hatreds, and loves. If limiting costs is the goal, consult our veterinary colleagues who routinely confront pet repair costs that families cannot afford or will not pay.

Most medical care is repair. At best, some medical care is preventive maintenance. It is not appropriate to pretend that medicine is a manufacturing business.

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Financial Disclosures: None reported.

1. Grove AS. Efficiency in the health care industries: a view from the outside. *JAMA*. 2005;294:490-492.

This letter was shown to Dr Grove, who declined to reply.—Ed.

CORRECTION

Incorrect Telephone Number: In the Patient Page on juvenile idiopathic arthritis published in the October 5, 2005, issue of *JAMA* (2005;294:1722), the telephone number for the Arthritis Foundation that read "800/238-7800" should read "800/283-7800."

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