Elbow Pain

YOUNG ATHLETES MAY EXPERIENCE PAIN IN THE ELBOW KNOWN AS "LITTLE LEAGUER'S ELBOW."

By Andrew DeGruccio, MD

he elbow is the most common site of injury in young baseball players, and many of these injuries are preventable. Throwing puts significant tension forces on the inside of the elbow and compression forces on the outside of the elbow, leading to a number of conditions that may include little leaguer's elbow. Other sports that involve a throwing motion are subject to the same problems, such as tennis and volleyball.

Little leaguer's elbow has been described as an apophysitis, or inflammation, of the medial epicondyle (inside of elbow) in athletes between nine and 12 years of age. Most patients experience pain on the inside aspect of the elbow during throwing, and they may have decreased pitch velocity or control. Examination may reveal swelling, loss of motion and tenderness along the inside of the elbow. The diagnosis of little leaguer's elbow is made clinically and should be considered in throwers with medial elbow pain, even if symptoms are minimal. Initial evaluation includes elbow x-rays, which may include comparison views of the uninjured side. X-rays may be normal or may reveal thickening of the inside elbow bone, bone fragments in the joint, growth plate widening or separation or cartilage defects. An MRI may be useful for patients with normal x-rays and clinical suspicion for other conditions, such as a ligament injury.

The problem is strongly correlated to the number and type of pitches per week. Loss of control and/or velocity during throwing are indicators of a developing problem. Decreased range of motion is an ominous sign of problems.

Treatment consists of complete rest from the throwing motion or pitching for at least four to six weeks. Ice packs and over-the-counter anti-inflammatories, such as ibuprofen, may be used for swelling and pain. General conditioning, stretching

and core strengthening should be encouraged. A gradual and progressive (interval) throwing program may begin after the initial rest period. Most athletes are able to return to competitive pitching and throwing at 12 weeks.

In cases where cartilage defects and bone fragments are found within the joint, surgery is usually required. The surgery is typically minimally invasive and performed arthroscopically. Unfortunately, throwing is not allowed after surgery for one full year, and sometimes permanently.

To help prevent little leaguer's elbow and shoulder, the American Academy of Pediatrics recommends limiting the number of pitches to 200 per week or 90 pitches per outing. However, the USA Baseball Medical and Safety Advisory Committee recommends more conservative pitch counts (i.e., 75 to 125 pitches per week or 50 to 75 pitches per outing, depending on age). Other preventive measures include a preseason conditioning program, instruction on proper pitching mechanics and allowing time during the early part of the season to gradually increase the amount and intensity of throwing. Similar guidelines for other sports, such as tennis, have not been developed, but recuperative time between training sessions should be required.

If a young athlete begins to experience persistent pain, he should have an evaluation by a sports medicine specialist. Many of the more serious complications of the condition, such as cartilage defects and loose pieces within the joint, can be avoided with early treatment, and early x-rays can detect signs of these impending problems. •

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