



Little League Elbow (Medial Epicondylar Apophysitis)

What is Little League Elbow?

Medial epicondyle apophysitis is irritation and inflammation of the growth plate (apophysis) on the inner side of the elbow (medial epicondyle). Since medial epicondyle apophysitis is the most common injury affecting young baseball pitchers, it is often referred to as "Little League Elbow." It most frequently affects pitchers between 9 and 14 years of age. It can also occur in position players who throw often, such as shortstop and third base. It may be seen in other overhead sports such as water polo, volleyball, and football quarterback.

What causes Little League Elbow?

Medial epicondyle apophysitis is an overuse injury caused by lots of throwing. The medial epicondyle is the attachment site for the forearm muscles used in throwing, and one of the ligaments that helps stabilize the elbow during the throwing motion. In children and adolescents, the medial epicondyle contains a growth plate made up of cartilage cells, which are softer and more vulnerable to injury than mature bone. Repetitive pitching puts a large amount of stress on this growth plate, causing it to become inflamed and irritated. In severe cases, the growth plate may actually break away from the upper arm.

What are the signs and symptoms?

There is pain on the inner side of the elbow with throwing. You may also have swelling and difficulty extending your elbow all the way. You may not be able to throw the ball as fast or as accurately.

How is it diagnosed?

Your doctor will review your symptoms and pitching history, and examine your elbow. There will be tenderness at the medial epicondyle. There may be swelling and some loss of elbow motion. X-rays may show irritation or widening of the growth plate, but often they are normal since this injury does not always show up on an x-ray. The diagnosis can be made based on your symptoms and doctor's examination of your elbow.

How is it treated?

The most important step in the treatment of medial epicondyle apophysitis is to **rest** from throwing for a few weeks to give the growth plate time to heal. Ice may help reduce the inflammation, and can be placed on the elbow for 15-20 minutes every 3-4 hours. Your doctor may recommend physical therapy to improve muscle strength and endurance, which may help to decrease the stress on your growth plate and reduce your risk for re-injury. During this initial period of rest from throwing, other sports and activities that do not put stress on the elbow (e.g. soccer, basketball) are allowed.



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When can I return to throwing?

When you have full motion of the elbow without pain, and adequate strength in the arm, upper back, and core muscles (this usually occurs after about 3-6 weeks of physical therapy), a gradual return-to-throwing program is begun. It typically takes 4-6 weeks in this program before you can pitch in games.

Remember that everyone recovers from injury at a different rate. How long it takes to return to throwing depends on how soon the elbow recovers, not by how many days or weeks it has been since the injury occurred. The goal is to return to throwing as quickly and safely as possible. If you return to throwing too soon or throw with pain, the injury may worsen, which could lead to permanent elbow pain and difficulty with sports.

How can Medial Epicondyle Apophysitis be prevented?

Lots of pitching puts repetitive stress on the medial epicondyle growth plate, which can weaken it and make it more prone to overuse injury.

- The **best way to prevent** medial epicondyle apophysitis is to follow the attached guidelines for appropriate pitch count limits and proper rest between pitching appearances.
- **DO NOT throw through pain.** Pain is a sign of injury, stress, or overuse. Pushing through pain will only worsen the injury. Rest is required to allow time for the injured area to heal.
- **DO NOT throwing breaking pitches (curve ball, slider) before 14 years of age.**

All pitchers should have **rest periods** between pitching appearances:

For pitchers age 7 to 16:	
<u>Pitches in a day</u>	<u>Rest time</u>
61 or more	4 days
41-60	3 days
21-40	2 days
1-20	1 day

For pitchers age 17 to 18:	
<u>Pitches in a day</u>	<u>Rest time</u>
76 or more	4 days
26-50	2 days
51-75	3 days
1-25	1 day