

MEDIAL APOPHYSITIS (LITTLE LEAGUER'S ELBOW)

What is medial apophysitis (Little Leaguer's elbow)?

Little Leaguer's elbow is pain on the side of the elbow that is closest to the body.

The elbow joint is made up of the bone in the upper arm (humerus) and one of the bones in the lower arm (ulna). The bony bumps at the end of the humerus are called epicondyles. The bump closest to the body is called the medial epicondyle, and the bump on the outer side of the elbow is called the lateral epicondyle.

The muscles that work to bend the wrist attach at the medial epicondyle, and the muscles that work to straighten the wrist attach at the lateral epicondyle. Too much bending of the wrist will irritate the muscles that attach to the medial epicondyle.

In a child, the bones grow from areas called growth plates. There is a growth plate at the medial epicondyle called the medial apophysis. In Little Leaguer's elbow this growth plate is irritated or inflamed.

How does it occur?

Little Leaguer's elbow is caused by too much throwing. Too much throwing puts stress on the muscles that bend the wrist where they attach to the inner side of the elbow. The growth plate becomes inflamed. In severe cases, the growth plate may actually break away from the upper arm.

What are the symptoms?

Little Leaguer's elbow causes pain at the inner side of the elbow. There may be swelling and tenderness.

How is it diagnosed?

Your healthcare provider will examine your child's arm and elbow. There will be tenderness along the medial epicondyle. Your child will feel pain when he or she throws a ball for the provider. X-rays may show irritation or a break in the growth plate.

How is it treated?

The most important treatment for Little Leaguer's elbow is to not throw if the growth plate is inflamed. Ice packs should be placed on the elbow for 20 to 30 minutes every 3 to 4 hours for 2 to 3 days or until the pain goes away. An elastic elbow wrap may be placed on the inflamed elbow to give it more support. The healthcare provider may give your child an anti-inflammatory medicine. Your child will be given

rehabilitation exercises. In severe cases of Little Leaguer's elbow where there is a break in the bone, surgery may be needed.

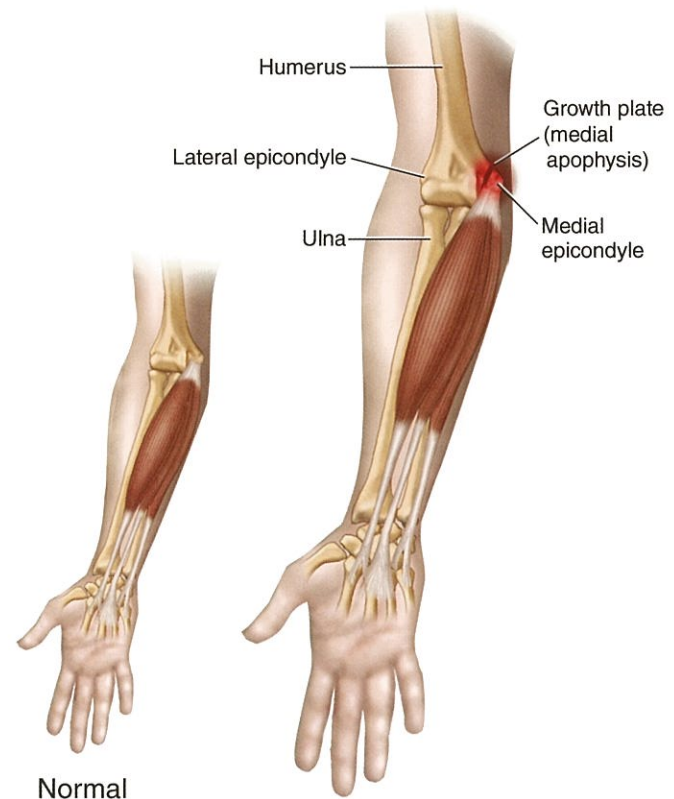
When can my child return to his or her sport or activity?

The goal of rehabilitation is to return your child to his or her sport or activity as soon as is safely possible. If your child returns too soon the injury may be worsened, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your child's sport or activity will be determined by how soon the elbow recovers, not by how many days or weeks it has been since your child's injury occurred. In general, the longer your child has symptoms before starting treatment, the longer it takes to get better.

Your child may begin throwing when there is no swelling around the injured elbow and it has regained its normal strength compared to the uninjured elbow. Your child must have full range of

ELBOW/ARM

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motion of the elbow. Throwing should be gradually increased but stopped if the elbow becomes painful.

How can Little Leaguer's elbow be prevented?

The best way to prevent Little Leaguer's elbow is to limit the amount of throwing a child does. Since this

problem occurs most often in pitchers, there are guidelines for how many pitches or innings a child can throw in a week. In general, a child aged 9 through 12 years old should pitch no more than 6 innings a week (and no more than 250 pitches). A youngster aged 13 through 15 should pitch no more than 9 innings a week (and no more than 350 pitches).

ELBOW/ARM

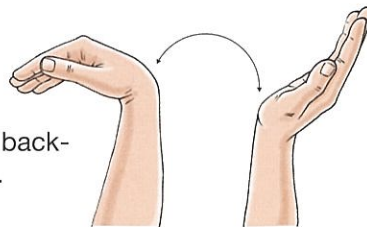
MEDIAL APOPHYSITIS (LITTLE LEAGUER'S ELBOW) REHABILITATION EXERCISES

You may do the stretching exercises right away. You may do the strengthening exercises when stretching is nearly painless.

Stretching exercises

1. WRIST ACTIVE RANGE

OF MOTION: Flexion and extension: Bend your wrist forward and backward as far as you can. Do 3 sets of 10.



WRIST ACTIVE RANGE OF MOTION



WRIST STRETCH

2. WRIST STRETCH: With one hand, help to bend the opposite wrist down by pressing the back of your hand and holding it down for 15 to 30 seconds. Next, stretch the hand back by pressing the fingers in a backward direction and holding it for 15 to 30 seconds. Keep your elbow straight during this exercise. Do 3 sets on each hand.

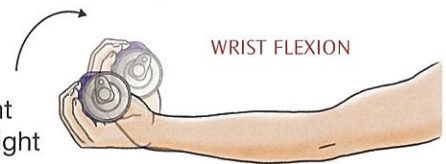
3. FOREARM PRONATION AND SUPINATION: With your elbow bent 90°, turn your palm upward and hold for 5 seconds. Slowly turn your palm downward and hold for 5 seconds. Make sure you keep your elbow at your side and bent 90° throughout this exercise. Do 3 sets of 10.



FOREARM PRONATION AND SUPINATION

Strengthening exercises

4. WRIST FLEXION: Hold a can or hammer handle in your hand with your palm facing up. Bend your wrist upward. Slowly lower the weight and return to the starting position. Do 3 sets of 10. Gradually increase the weight of the can or weight you are holding.



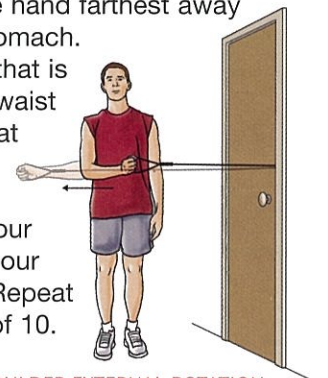
WRIST FLEXION

5. WRIST EXTENSION: Hold a soup can or hammer handle in your hand with your palm facing down. Slowly bend your wrist upward. Slowly lower the weight down into the starting position. Do 3 sets of 10. Gradually increase the weight of the object you are holding.



WRIST EXTENSION

6. RESISTED SHOULDER EXTERNAL ROTATION: Stand sideways next to a door. Rest the hand farthest away from the door across your stomach. With that hand grasp tubing that is connected to a doorknob at waist level. Keeping your elbow in at your side, rotate your arm outward and away from your waist. Make sure you keep your elbow bent 90 degrees and your forearm parallel to the floor. Repeat 10 times. Build up to 3 sets of 10.



RESISTED SHOULDER EXTERNAL ROTATION

7. FOREARM PRONATION AND SUPINATION STRENGTHENING:

Hold a soup can or hammer handle in your hand and bend your elbow 90°. Slowly rotate your hand with your palm upward and then palm down. Do 3 sets of 10.



FOREARM PRONATION AND SUPINATION STRENGTHENING

8. RESISTED ELBOW FLEXION AND EXTENSION:

Hold a can of soup with your palm face up. Slowly bend your elbow so that your hand is approaching your shoulder. Then lower it slowly so your elbow is completely straight. Do 3 sets of 10. Slowly increase the weight you are using.



RESISTED ELBOW FLEXION AND EXTENSION