**What is a Plica?**

Plica is a term used to describe a fold in the synovial lining of the knee joint. Plica is a Latin word meaning "fold." This term is a descriptive one; there is no evidence that true folding of the synovial lining occurs. The plica themselves are remnants of the fetal stage of development of the knee where it is initially divided into three compartments. The plicas normally shrink in size during the second trimester but don’t disappear completely leaving a shelf of tissue (“fold”) or plica where they originally existed.

Plica syndrome of the knee consists of a constellation of signs and symptoms that occurs secondary to inflammation of the plica usually caused by injury or overuse. As noted, plica are normal structures found in most knees. Normally plicae do not cause any problems. However, with the right combination of events, they can become quite painful.

A plica causes problems when it is inflamed. This can occur over a long period of time, such as when the plica is irritated by certain exercises, repetitive motions, or kneeling. Activities that repeatedly bend and straighten the knee, such as running, biking, or use of a stair-climbing machine, can irritate the medial plica.

Plica can also become irritated acutely after injury or trauma, such as a direct blow to the area around the medial plica. This can occur from a fall, getting kicked or hit during a sporting event or even from hitting the knee on the dashboard during an automobile accident. The injury to the knee can cause the plica to swell and become painful.

**Signs and Symptoms**

- Pain on the medial (inner) side of the knee with activities
- Catching or snapping sensation
- Tenderness to touch
- The presence of a tender band in the knee

**Understanding Your Medial Plica Syndrome**

**Treatment Options**

Treatment for medial plica syndrome are based on reducing the inflammation of the plica. Most people will get better with conservative treatment and will not require surgery, though older teenagers do not respond as well to conservative treatment.

Initial treatment consists of taking an anti-inflammatory medication, avoiding activities that irritate the knee, icing and possibly physical therapy with ultrasound and phonophoresis. If conservative treatment options do not work then a cortisone (steroid) shot can be given directly into the plica or into the knee joint to decrease the inflammation. Each child is different, and your physician will suggest the best treatment option for the child.

**Medication**

Taking anti-inflammatory medicine or NSAIDS (non-steroidal anti-inflammatory drugs) such as Motrin, Advil, Naproxen or Aleve as directed by your doctor can be effective. This medication should be taken for 10 to 14 days to allow the medicine to reach therapeutic levels in the body.

**Icing**

- Ice packs or ice massage can be applied to the knee immediately after a workout for 15-20 minutes. This can be repeated every 60-90 minutes, several times a day.
- Ice massage is performed by filling several paper cups with water and placing them in a freezer. When frozen, the cup’s rim is torn off and the ice is then directly applied to the sore area until the area becomes numb.
Do you have Medial Plica Syndrome?

Your doctor diagnoses medial plica syndrome based on your history, symptoms, clinical examination, and x-rays. Although the plica is not visible on x-ray, x-rays may be ordered by your doctor to rule out other possible conditions. An MRI may show the plica but this is rarely needed.

Can Medial Plica Syndrome be prevented?
No. There is not a 100% guaranteed method to prevent an active athlete from developing medial plica syndrome.

However, warming up before activity and stretching before and after activities may help to prevent medial plica syndrome.

When is Surgery Needed?
If all conservative treatment options have been taken and the child is still experiencing pain, then arthroscopic surgery can be performed to remove the plica completely.

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