OVERVIEW
Your child has been diagnosed with painful accessory navicular bone. These means that you child has a small extra bone in the foot, which because of its size and position within an important tendon, has become irritated and painful. This extra bone has been present since birth, but with the growth and development of the bones in the foot, the junction between the accessory navicular and the main navicular bone has narrowed to a point that the stress acting on the junction has become painful. Sometimes pain develops due to minor injury and does not improve. Sometimes the pain develops without an injury. Often the pain will improve with mechanical protection of the area. If the pain does not improve with growth and maturity or the main become limiting, surgical excision of the accessory navicular can be done.

BACKGROUND
There are numerous places around the bones in the foot, where there can be small accessory bones that are located at tendon or joint capsule insertions sites. Most of these accessory bones are of little or no consequence. Some times they can be mistaken for a fracture, if there is an injury, but experienced doctors will recognize classic locations for these accessory bones and recognize the smooth contour which identifies them as accessory bones. It is estimated that 2-12% of young children will have a small accessory bone develop in the insertion of the posterior tibialis tendon on the navicular and in about half of these children the accessory bone will eventually fuse or join into the navicular as the foot bones grow and mature. There is probably a short period of time when the bones have grown close together, but not yet joined, where the tissues in the narrow junction see very high stress concentrations. If the stresses on that narrow junction are too high, it may become painful and the tissue may not progress to a solid bone junction. Girls seem to be more likely to have an accessory navicular than boys. The problem commonly appears during the teenage years.

CLINICAL PRESENTATION AND DIAGNOSIS
Patients typically present in early adolescence with complaints of a recent or long standing painful bump just above the arch of the foot. There may or may not have been a prior injury. Walking can be painful when the problem is aggravated.

The diagnosis is with a physical examination and x-rays. Xrays will typically show the accessory navicular. Less commonly, especially if the pain is less defined, an MRI may be done and also will show the area of irritation.
TREATMENT
The treatment for a symptomatic accessory navicular can be divided into nonsurgical treatment and surgical treatment. In the vast majority of cases, treatment usually begins with nonsurgical, or conservative, measures. Surgery usually is considered when all conservative measures have failed to control your problem and the pain becomes intolerable.

Conservative Treatment: If the foot becomes painful following a twisting type of injury and an x-ray reveals the presence of an accessory navicular bone, your doctor may recommend a period of immobilization in a cast or splint. This will rest the foot and perhaps allow the disruption between the navicular and accessory navicular to heal. If the pain subsides, then no further treatment may be necessary. Sometimes an arch support or ankle brace can relieve the stress on the fragment and decrease the symptoms.

Surgical Treatment: If conservative measures fail and the fragment continues to be painful, surgery may be recommended. The most common procedure used to treat the symptomatic accessory navicular is the Kidner procedure. To perform this procedure, a small incision is made over the accessory navicular and it is removed from the posterior tibial tendon with a repair and reattachment of the tendon to the remaining normal navicular. Following the procedure, the skin incision is closed with stitches, and a bandage and temporary cast are applied. Following surgery, you may need to use crutches for several days. Typically, the foot is protected in a cast or walking boot for 4-6 weeks. You may be released to full activity in about six weeks.

EXPECTED OUTCOMES AND COMPLICATIONS
With symptomatic or surgical care, most patients have few if any long term problems.

MORE INFORMATION
Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and www.emedicine.com.

FEEDBACK
If you have questions or comments, please contact the office or submit them to the web site at www.pedortho.com.