Bipartite Patella

OVERVIEW
You have been diagnosed with a bipartite patella. This means that the patella (the bone of the kneecap) developed differently and there are 2 separate parts to the bone, separated by a fibrous area. This fibrous area is not as strong as the bone and it can be injured and become painful. If there is an acute injury, it may heal with protection. If it does not heal and remains painful, surgery is sometimes needed to join the pieces or to remove the smaller piece.

BACKGROUND
Most bones start as cartilage and are gradually replaced with bone. This process starts in a young child with a center of ossification, which gradually expands until maturity, when the bone reaches it final size and shape. For some individuals, two ossifications centers will form and expand. Often these two areas of bone will come together and they become a single bone. However, sometimes the centers are not able to join and a plane of fibrous tissue (like scar tissue) will remain. This tissue is called a synchondrosis.

A bipartite patella is found in roughly 1% of the population. For most people, the bipartite patella functions fine and there is no pain or other symptoms. However, in some people with a bipartite patella, the synchondrosis (fibrous tissue between the two parts) can become injured in a fall or other injury to the knee. Or, it can become inflamed and irritated due to repetitive activity. Symptoms often start after a minor injury, but the pain persists.

DIAGNOSIS
A bipartite patella is most commonly diagnosed as an incidental finding. This means that most often an X-ray was obtained to evaluate the knee for another reason, and the bipartite patella was seen on the X-ray. A bipartite patella is only concerning if it is symptomatic. Common symptoms of an inflamed bipartite patella include pain directly over the kneecap and swelling over the fibrous part. X-rays will show the bipartite patella. Physical examination of the knee will also look for other sources of pain within the knee. An MRI may be done to evaluate the other structures in the knee.
TREATMENT
In most cases, no treatment is needed for patients diagnosed with a bipartite patella. In the few patients who develop persistent symptoms as a result of their bipartite patella, there are surgical treatment options. The surgery usually consists of removing the smaller fragment of bone or detaching the muscle that inserts on the smaller piece of bone.

EXPECTED OUTCOMES
The majority of patients do well without treatment. Some patients require surgery. If needed, surgery leads to improvement in most patients.

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 internet 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.