



September 2009

Bow-legged. Knock-kneed. How Are These Conditions Treated?



Many people who are bow-legged (a condition called varus) or knock-kneed (a condition called valgus) do not realize how much extra stress they are putting on their knees. A normally aligned knee is designed to distribute weight equally to the inner and outer part of the joint.

When the knee is misaligned, weight distribution is uneven. If you are bow-legged, most weight bearing is shifted to the inside of the knee. If you are knock-kneed, the outside of the knee does most of the weight bearing.

This uneven distribution of stress increases the wear and tear on one side of the knee and increases the likelihood of developing **osteoarthritis**, especially if you are overweight. Because the knee no longer glides smoothly, walking or climbing stairs becomes painful.

One solution to relieve pain and improve knee function is a surgical procedure called an **osteotomy**, which realigns the lower leg so that the opposite side of the knee now carries most of the weight-bearing load. In an osteotomy, **a wedge-shaped piece of bone is removed from the leg just above or below the knee, and the cut surfaces of the bones are fastened in place with a plate and screws.** Osteotomy is not right for every patient, and it is not a permanent solution to osteoarthritis. However, it can extend the life of your natural knee and delay, by years, the need for total knee replacement.

While continuous passive motion of the knee can begin immediately after the operation, toe touching is the only weight-bearing activity allowed for four weeks to allow the bone to fuse. Eight to 10 weeks after surgery, exercises to tone and strengthen the muscles may begin. Stationary biking, treadmill and outdoor walking, straight leg raises and use of the elliptical trainer may enable you to feel totally comfortable during normal activities after three to six months.

Because rehabilitation plays an important role in achieving a successful outcome, we can work with your surgeon to design an exercise program that will restore your range of motion and train your gait, while protecting the healing bone. If you are considering this or any other knee procedure, talk with us before your surgery so that we can plan for your successful rehabilitation.