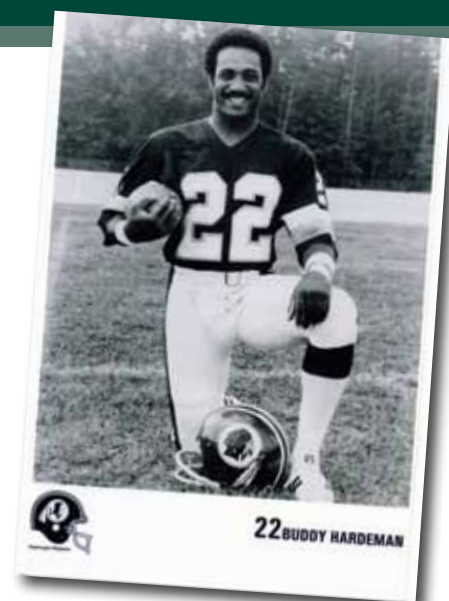# An Alternative to
Knee Replacement

Knee Osteotomy Provides Relief for Younger Patients

Buddy, a former Redskin, is still pain free ten years after his knee osteotomy.

Fairfax County sheriff's deputy Buddy never wants to leave his fellow deputies unprotected. But many years of playing professional football, including two seasons with the Washington Redskins, had taken a toll on his joints. When debilitating knee pain slowed him down at work, he sought a solution that would get him back on his feet and back on the job as soon as possible.

Buddy consulted Brantley Vitek, MD, at Commonwealth Orthopaedics. After an X-ray revealed severe bone-on-bone arthritis in Buddy's right knee, he feared he would need a knee replacement. Dr. Vitek had another option in mind: knee osteotomy.

Osteotomy literally means "cutting of the bone." In a knee osteotomy, either the tibia (shinbone) or femur (thighbone) is cut and reshaped to relieve pressure on the knee joint. It is most commonly performed on people who are considered too young for total knee replacement. "Generally, this procedure is best for fairly young patients – in their 30s or 40s – who have isolated degeneration or arthritis on one side of the joint only," Dr. Vitek explains. "Older patients are better served by a joint replacement."

Because the arthritis affected just one part of Buddy's knee, and because he was 48 at the time, he was a good candidate for an osteotomy. Looking back, it appears to have been the right decision. "This was a quick fix that involved a much shorter recovery period than a total knee replacement," he says. "I was very determined to get back to work, so I pushed myself pretty hard." Buddy was up and walking immediately after the procedure and

spent the next few weeks in rehabilitation. Within a month he returned to light duty work, and just six weeks after surgery he was back on the job full time.

Ten years later, Buddy is still pain free. And if he needs a joint replacement down the road, he knows just where to turn. "Dr. Vitek is a great surgeon and Commonwealth is a terrific practice," he says. "I'm glad they are there because I know I'm going to need them for the rest of my life."

Brandy is another osteotomy success story. The 32-year-old from Woodbridge suffered debilitating arthritis since adolescence and had a tibial tubercle osteotomy on her right knee last year.

"This is the number one type of osteotomy that we do," says Commonwealth surgeon Christopher Annunziata, MD, who performed Brandy's procedure. "It corrects the maltracking of the patella (kneecap). The tibial tubercle is cut at an angle and slid into a different position to transfer load to the healthier part of the patellofemoral joint. After the procedure, the patella should move more smoothly in the trochlear groove, reducing pressure and relieving pain."

Following surgery, Brandy spent a couple of months in physical therapy to build strength and range of motion. Within six months, she was back to her normal activities. Her pain is gone and she can do things that most people take for granted such as walk up a flight of stairs or chase after her two young sons.

"Before my osteotomy, there were times when I couldn't even take a step without pain, and when it was cold or damp I was especially miserable," she says. "Now I don't have these problems at all – it's really amazing."

She has high praise for Dr. Annunziata, who explained all the options clearly and told her what to expect. "Everything came out exactly as he said it would and I'm forever grateful to him," she says.

Although osteotomy is usually a stand-alone procedure, it is also done in conjunction with other surgeries. "Osteotomy can be an important adjunct procedure when performing cartilage restoration surgery, meniscal transplant or ligament reconstruction in association with a mal-aligned knee," says orthopaedic surgeon Keith Lawhorn, MD, who performs all of these procedures at Commonwealth.

Many people who undergo knee osteotomy will eventually need a total knee replacement – usually about 10 to 15 years after the initial procedure. In the meantime, the surgery offers a reasonable alternative to replacement in carefully selected candidates. "While knee replacements are a fantastic option with wonderful results, they are not for all patients at certain points in their lives," Dr. Annunziata says. "For those who aren't ready – either physically or mentally – and who meet the criteria, osteotomy can be an excellent choice."

Christopher C. Annunziata, MD, *earned a BS from Boston College before graduating with his medical degree from Georgetown University. He completed an orthopaedic surgery residency at Georgetown University Medical Center and went on to complete a fellowship in Sports Medicine/Knee and Shoulder Surgery at the University of Pittsburgh Sports Medicine Center.*

Keith Lawhorn, MD, *graduated with a BA in Chemistry from the University of Virginia and continued his education at the University of Virginia School of Medicine, where he earned his medical degree. He completed a general surgery internship and orthopaedic residency at the Medical College of Virginia. Dr. Lawhorn served on active duty in the U.S. Air Force for eight years, reaching the rank of Lt. Colonel.*

Brantley P. Vitek, MD, *earned a BA in Philosophy from the University of Virginia before receiving his medical degree from the Medical College of Virginia. He then went on to complete a general surgery internship at the University of Colorado followed by an orthopaedic surgery residency at the University of Texas Health Science Center in Houston.*

For full biographies and a complete directory of the physicians at Commonwealth Orthopaedics who perform these and other procedures visit our website at www.c-o-r.com.