Joint venture
Replacing hips, shoulders, knees and toes

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Relda Gerard couldn't lift her arm to comb her hair or even bring a fork to her mouth to eat. The pain was excruciating. A veteran of hip and knee replacement, she was leery of the shoulder-replacement surgery her doctor suggested. "If I'd known how well it would go, I would have done it sooner," she says now. "It was the best thing to happen to me in a long time."

While knee and hip replacements get most of the attention (close to a million are done each year in the United States), arthritis also attacks cartilage in other joints, causing excruciating pain. "Patients with degenerative arthritis in the toe bones live with debilitating pain for many years," said podiatrist John Fleischli of Foot and Ankle Associates in Springfield, adding that after hips and knees, arthritis most often attacks the toe bones. Add to that the 13.7 million Americans who see a doctor every year for shoulder injuries, and it is no wonder that shoulder and toe-joint replacement are booming medical specialties.

"I had hurt my own shoulder playing tennis when I was younger," said Dr. Vivek Agrawal, an orthopedic surgeon at The Shoulder Center in Zionsville, Ind., and Gerard's doctor. "While I was searching for answers, I wondered how many people had the same questions and problems. Now, shoulders are all I have done for five years. Many of the patients who come to me aren't even aware there is such a thing as shoulder replacement."

Arthritis is the most common cause of joint pain. Normally the ends of bones in the joint are covered with a protective layer of cartilage. However, if the cartilage wears down or tears from an injury, inflammation and swelling occur and cause pain. While over-the-counter pain medication and cortisone shots can work temporarily, eventually many patients opt for joint replacement, "having a sense that they don't have to live like this," Agrawal said.

"My feet hurt for 15 years," said Shirley Coville of Springfield and a patient of Fleischli's. "One day it hurt so bad I knew I had to have the surgery." Coville had her left toe joint replaced in 2005 and the right toe joint a few months later. She now is able to work out on a treadmill and play golf. Her surgery involved a HemiCap, a metal cap that is attached to the long tendon and gives patients good motion. "HemiCap caps the metatarsal, or source of the arthritis, providing a smooth surface that doesn't cause as much irritation after the connective tissue is reattached," Fleischli said, adding that previous toe-joint replacements did not offer as good a range of motion.

Gerard, 78, of suburban Indianapolis, is one of approximately 50,000 people who had shoulder-replacement surgery in 2006. Her surgery was reverse shoulder replacement, used when the rotator cuff is damaged, a process that has been done in the U.S. only since 2004 and is more common in older patients. The procedure creates a deep pocket to keep the joint stable, according to Agrawal. Total shoulder replacement is used when the rotator cuff is working. That procedure replaces the ball and socket. "Most people see 100 percent improvement in pain relief and ability to do activities," he said of both procedures.
Like the more common hip and knee replacements, toe and shoulder joints have a life span of about 10 to 15 years. However, recovery times are dramatically different. Toe-joint replacement is done on an outpatient basis, according to Flesichli, and patients don't even need a cast or crutches. "In one week you can start moving," he said, "and in two to three weeks you can be walking or out on the golf course." Shoulder-replacement surgery requires general anesthesia but requires just an overnight hospital stay, according to Agrawal. Total replacement surgery can require two to three months of physical therapy, similar to knees and hips, while recovery from reverse replacement just requires squeezing a ball and wearing a sling.

"It's so nice to be able to use my arms again," Gerard said. "I have had successful knee and hip replacement and now this. My family calls me the Bionic Woman."

To find an orthopedic surgeon, visit the American Academy of Orthopaedic Surgeons' Web site at aaos.org.

Shoulder surgery solutions

There are several types of shoulder replacements. The usual total shoulder replacement involves replacing the arthritic joint surfaces with a highly polished metal ball attached to a stem, and a plastic socket.

Another type of shoulder replacement is called reverse total shoulder replacement. This surgery was developed in Europe in the 1980s. It was approved by the Food and Drug Administration for use in the United States in 2004. Reverse total shoulder replacement is used for people with completely torn rotator cuff tendons, severe arthritis or who have failed previous shoulder replacement.

-- M.K.

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