

# Good for Another 60,000 Miles

## Advancements in Hip Replacement Offer New Options for Younger Patients

**M**ore than 40 years in the construction business had taken its toll on Ralph. Painful osteoarthritis in his hips made it increasingly difficult for the 65-year-old from Springfield to perform everyday activities. Although he knew he'd eventually need hip replacement, he wanted to wait until after he retired. To buy some time, Commonwealth surgeon Daniel Thompson, MD, recommended that Ralph try non-operative options, including anti-inflammatory medications and cortisone injections. "Dr. Thompson was very understanding and never pushed me toward surgery," Ralph says. "He told me, 'when it hurts enough, you'll do it.'"

In early 2011, Ralph decided that it hurt enough. He had his first hip replacement with Dr. Thompson in March. It went so well, he had his second procedure just seven weeks later.

Advancements in hip replacement surgery are offering new options for younger patients such as Ralph. Better, longer-lasting materials are one big difference, as Dr. Thompson explains. "The polyethylene has become far more technical—irradiated, quenched of free radicals, some even doped with other agents such as vitamin E. This can dramatically increase longevity by decreasing wear. Other options that have been developed and improved over the past several years include use of metal-on-metal or ceramic-on-ceramic articulations – even diamond articulations – and combinations of all of these." Dr. Thompson points out that each has its pros and cons, so it's important that the surgeon determine what is best for an individual patient.

Technical aspects have also changed for the better. One cutting-edge technique is direct anterior total hip replacement, in which surgeons approach the hip from the front, rather than the back or side. "In this method, muscles are split, rather than cut and reattached, which leaves those most important for hip function – the gluteus muscles that attach to the pelvis and femur – undisturbed," explains Mark McMahon, MD, a Commonwealth surgeon who is among a handful of local physicians who perform this type of hip replacement on a regular basis. "The anterior approach is far less traumatic for patients, with a very small incision, so pain is minimized and the risk of dislocation reduced. Because muscles aren't cut, patients are stronger afterward and recover function much more quickly. They can put weight on the hip immediately."

Other technical innovations include computer-assisted surgery, which uses pre-op templates and intra-op navigational guides for placement and positioning of the prosthesis, and customized, patient-specific implants that result in a more exact fit and better wear

resistance over time.

Pre-operative medications and anesthesia are other big improvements that help with rapid recovery. "Frequently, regional anesthesia such as an epidural is used to minimize the anesthetic needed, as well as reduce the blood loss of surgery," Dr. Thompson says. "This allows almost all patients to get up and walk on the same day of surgery. Most are ready for discharge from the hospital two days after surgery, and many are walking without aids within a couple of weeks."

Following his surgeries, Ralph spent time working with one of Commonwealth's physical therapists to regain range of motion and strengthen the muscles in his hips. When he finished therapy, he resumed walking on a treadmill and lifting weights. He's now walking 2.5 pain-free miles on the treadmill every day. "Dr. Thompson did an excellent job," Ralph says. "At my one-year checkup, he told me I'm good for another 60,000 miles. My new hips should last 25 or 30 more years."

Ralph is the perfect example of a young, healthy, active man who decided not to suffer anymore and go ahead with replacement, notes Dr. Thompson, who has this advice for others in similar circumstances: "When the pain of hip arthritis is bad enough to impact daily life and prevent you from doing your activities, it's definitely time to seriously consider improving your life with a hip replacement operation. It's not without risk, but the benefits far exceed those risks."



**Mark R. McMahon, MD**, earned a BA from the University of Oregon and his medical degree from Oregon Health Sciences University. He completed a general surgery internship from the University of Oregon and orthopaedic residency from the University of Southern California.



**Daniel E. Thompson, MD**, earned a BS in Biomechanical Engineering from Stanford University and then earned his medical degree from the University of Mississippi School of Medicine in Jackson. He completed both his general surgery internship and orthopaedic residency at Georgetown

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