



Total Hip Replacement

Total hip replacement may be the answer to your hip pain from arthritis. When you can no longer function well or tolerate the pain with even simple daily activities, it's time to think about total hip replacement. If the evaluation of your hip by physical exam and a careful review of your X-ray indicates that your hip is extensively worn, you may be a candidate for total hip replacement. If you are getting no relief with the more conservative measures you may be wondering "What can be done now?"

The answer may well be a total hip replacement done with the most advanced minimally invasive surgical techniques and rehabilitation program available anywhere in the world. As a recognized leader, teacher, and innovator in minimally invasive surgical techniques for total hip replacement surgery, Dr. Robert Zehr of the Zehr Center for Orthopaedics has had the opportunity to refine the various aspects of the surgical experience for his patients both in the operating room and in post-operative care. Currently, Dr. Zehr does more hip replacements than any other surgeon in Collier County as recorded by the Florida Agency for Health Care Administration⁽¹⁾.

Outpatient hip replacement surgery

In addition, Dr. Zehr has developed a safe and innovative program to provide total hip replacement as an "outpatient surgery." Younger, healthy patients may even completely avoid a hospital setting and its inherent risks. Imagine, getting your hip replacement and going directly home shortly afterward...the same day! This is the "front edge" of hip and knee replacement technology across the country and is quickly becoming the preferred setting for the young, active, working patient who needs to recover quickly to get back to their family and lifestyle. It is conducted at Seaside Surgery Center in Naples, Florida, where Dr. Zehr and his colleagues are setting the bar very high in the innovative programs to provide patients the best cutting edge technology available in the country.

Total hip replacement surgery is certainly not new or uncommon. In fact, last year it is estimated that some 400,000 Americans underwent this highly successful operation to relieve the pain of an arthritic or broken hip joint. You may not be aware, but surgical techniques can vary greatly among different surgeons based on training, skill and

experience. It is worth your time to become aware of these variations and how they might apply to you.

The most experienced surgeons become well versed in the technique that they have used for years, yet the question for surgeons and patients always remains—can it be done better? The answer is unequivocally — YES!

Anterior approach to total hip replacement

One of the most exciting advances in the surgical technique of hip replacement surgery has been realized with the use of the “**Direct Anterior Approach**” to the hip joint, which is Dr. Zehr’s preferred approach for this type of surgery. Curiously, this sophisticated surgical approach has been adopted by only ~40% of hip surgeons throughout the U.S. as their method of choice. Under ordinary circumstances, typical Medicare-aged patients who have total hip replacement done through the direct anterior approach with Dr. Zehr are able to go home after a one-night stay in the hospital.

You may be asking yourself — “Why is this approach such an advancement?” Specifically, a simple change in the direction from which the surgeon enters the hip joint, the “anterior approach” to the hip (coming in from the front of the hip) is quickly becoming the most sought-after surgical approach by discerning patients who need a total hip replacement. The reasons for the tremendous interest in this surgical technique are the multiple advantages it provides to the patient.

Advantages of direct anterior approach

Advantage One: Faster Recovery

Patients get up walking with full weight bearing on their operative hip the same day of surgery, shortly after returning from the recovery area. Many physically fit patients need only a cane to walk about in the hospital and are able to start general activities within a few weeks. While it may take patients many months to fully recover following conventional total hip replacement surgery, the anterior approach technique often enables patients to recover and return to activities such as golf, tennis, biking, and of course distance walking, in as short as four weeks.

Advantage Two: Minimally Invasive

The anterior approach to total hip replacement is the most minimally invasive choice for people suffering from arthritis, hip pain, hip fracture, stiffness, and limited hip movement. A small 3 – 4” incision is created over the anterolateral aspect of the hip. **No muscle is cut or detached from bone in this approach.** Some muscles in the front of the hip are temporarily pushed apart to allow work on the bones of the hip joint, but they are left uninjured and completely functional in this approach. This, of course, results in far less pain

than is typical in other approaches to the hip used by most surgeons and compliments the faster recovery.

Advantage Three: Less Restrictive

After conventional total hip replacement surgery, patients must limit flexing of the hip to no more than 60 to 90 degrees, which complicates normal activities like sitting in a chair, sitting on a toilet seat, putting on shoes, or getting into a car. Simply climbing stairs may also be more difficult during recovery when following the conventional total hip replacement surgery. These restrictions simply **do not apply** after total hip replacement using the anterior approach technique.

Following the anterior approach surgical procedure, patients are instructed to use their hip normally without cumbersome restrictions and are sent home from the hospital often in just two days. Patients can immediately bend their hip freely and bear full weight when comfortable, resulting in a rapid return to normal function. Patients and doctors alike are encouraging this method because it reduces pain, blood loss, scarring, muscle trauma, and the risk of dislocation.

Advantage Four: More Accurate

The use of a specialized X-ray machine known as a fluoroscope allows the surgeon to see the placement of the component parts of the hip prosthesis in real time and to make adjustments immediately. This is necessary to give the patient the most accurately placed hip prosthesis and to assure equal leg lengths before leaving the operating room. Gait disturbances resulting from a hip replacement made too long or left too short would be very rare with this technique.

Again, the “anterior approach” to total hip replacement surgery allows the surgeon to reach the hip joint from the front of the hip in contrast to the lateral (side) or the posterior (back) approach which are by far the most commonly used approaches to the hip currently used in this country. This way, the hip can be replaced without detachment of muscle from the pelvis or femur during surgery, as is required in traditional surgery. The surgeon can simply work through the natural interval between the muscles. The most important muscles for hip function, the gluteal muscles and external rotators of the hip that attach from the pelvis to the posterior hip and femur, are left undisturbed and, therefore, do not require a healing process to recover from surgical trauma.

So you may be wondering “If the anterior approach to the hip is so much better, why doesn’t every surgeon use this technique?” Indeed, this is a very fair question. The answer, however, is a bit complex. In fact, the anterior approach to hip surgery has been used in Europe since the late 1940’s, but with the use of conventional operating room tables, it is a technically demanding and often a time-consuming activity which did not lend itself well to acceptance by American orthopaedic surgeons. Thus, only a very few hip surgeons are currently offering this approach to their patients. In fact, it has been recently estimated that only ~40% of orthopaedic surgeons nationwide are using the anterior approach to hip surgery due to the steep learning curve of this technique. When given the choice, patients clearly prefer the significant advantages that this innovative surgical approach provides!

Hana table aids anterior approach

In recent years, however, a breakthrough in design of a specialized operating table developed by a senior orthopaedic surgeon in California and called the “**Hana® arthroplasty table**” has rekindled the interest of hip surgeons in this most minimally invasive of all surgical hip approaches. The table has unique capabilities to facilitate this smaller and less invasive approach.



A patient is positioned lying flat on their back with both legs stretched out on carbon fiber spars which support the legs and can move appropriately to manipulate the operated leg into various positions required during surgery. This positioning is the key to this anterior approach as it allows the use of live time X-ray guidance during the surgery to assess the position of the artificial hip components and allow for a more accurate measurement of leg lengths at the time of surgery. Additionally, the table has a sterile motorized robotic attachment that reaches inside the wound and lifts the femur to an accessible position which is the most difficult part of the anterior approach without this unique device.

Accordingly, implementation of both this unique surgical table and the “**direct anterior approach**” technique is Dr. Zehr’s preference for primary total hip replacement. He uses this approach and specialized table for virtually all of his hip replacement surgeries. He has done so for the past 10 years, during which he has done more than 2,000 hip replacements with this approach. This is truly a revolutionary advance in the field of total hip replacement surgery and the results in our patients have been nothing short of amazing.