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TOTAL HIP REPLACEMENT

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Question: Have there been any recent advances in Total Hip Replacement?

Answer: Total hip replacement has been performed in North America since the early 1970's and has been shown to be one of the most predictable operations in any surgical field in terms of the likelihood of good and excellent results. In the past the two most common problems with total hip replacement over the long term have been 1) implant loosening and 2) wear of the bearing surface of the joint replacement. A tremendous effort on the part of hip surgeons and other scientists has led to improvement in both of these areas.

The fixation of artificial joints to the skeleton can be accomplished by one of two methods. First, polymethylmethacrylate (bone cement) can be used in order to obtain immediate stability. The second method uses implants with special surface characteristics that allow bone to grow directly into the implant surface and therefore no bone cement is required. Using contemporary techniques and implants the loosening rate for total hip replacement has been improved substantially. Many studies show loosening rates as low as 1% ten years following the operation.

The second problem, namely wear of the artificial bearing, has also been addressed. Traditionally the bearing surface of a total joint replacement has been between a metal (cobalt chromium) and a plastic material (ultra high molecular weight polyethylene). This bearing has functioned well, but is known to wear at a low rate while in use much like the treads on a set of tires. Recent improvements in the plastic portion of the bearing material have profoundly improved its wear characteristics.

In short, with advances in the materials and techniques used by surgeons, the outlook for patients undergoing total hip replacement has never been better.

Question: What is the role of minimally invasive knee replacement in the treatment of knee pain?

Answer: Minimally invasive knee replacement has gained increased popularity in the last 4-5 years as an option for patients with arthritis. Traditionally, patients with severe knee pain secondary to arthritis have been treated with total knee replacement. Minimally invasive knee replacement usually involves replacing only one portion of the knee joint. The advantages of this technique over total knee replacement are that it requires less surgical exposure, the recovery period is much more rapid and in general the range of motion is better. The downsides are that in order to be successful the arthritis must be limited to only a single part of the knee. Most patients have degenerative changes in several areas of the knee and in this instance a partial knee replacement will not provide predictable relief of pain. Furthermore, some patients who undergo partial knee replacement will eventually develop arthritis in the remaining native portion of the joint and may require revision to a total knee replacement at some time in the future.

Minimally invasive partial knee replacement now offers an attractive alternative for pain relief and excellent function in carefully selected patients with arthritis.

Dr. Vittetoe is an orthopaedic surgeon at Des Moines Orthopaedic Surgeons, P.C. Dr. Vittetoe's practice focuses primarily on reconstructive surgery of the adult hip and knee. To reach Dr. Vittetoe at DMOS – East please call 263-9696.