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DAILY NEWS

Form and Function

Innovative design and cutting-edge technology have created a hip replacement that young patients can count on.

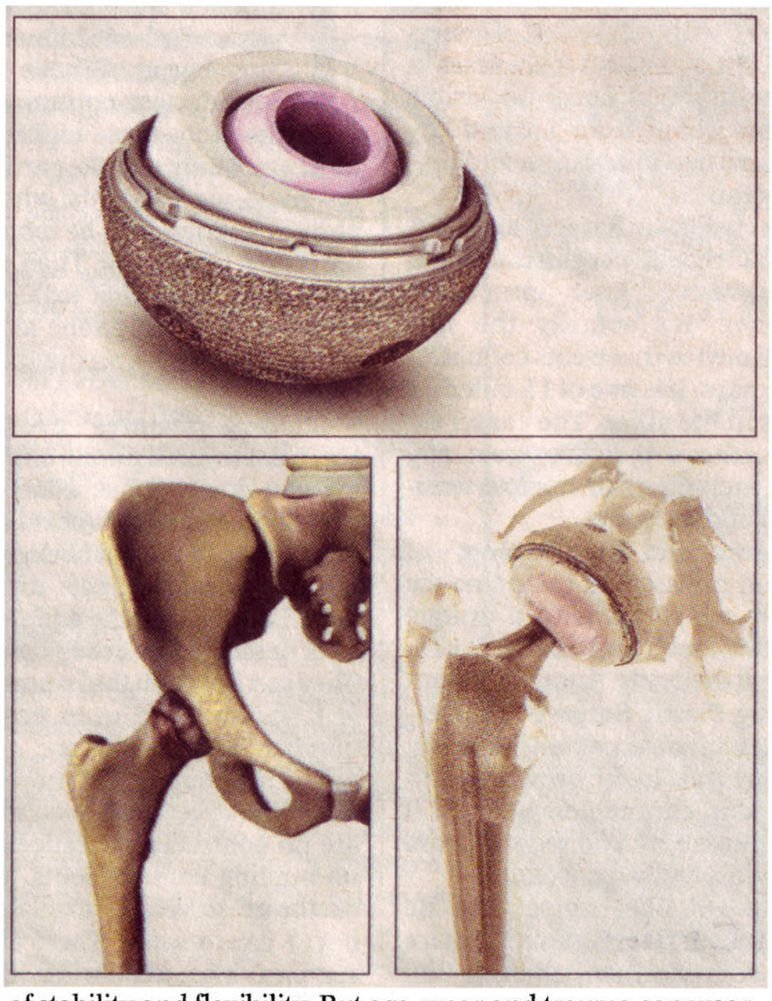
People who are considering a total hip replacement want to make sure the joint's stability and range of motion are restored, as well as getting pain relief. But another important concern patients have, especially those in their 40s, 50s and 60s, is: How long will the new hip last?

Steven F. Harwin, MD, FACS, Chief of Adult Reconstructive Surgery and Total Joint Replacement at Beth Israel Medical Center, has designed and consulted on the development of several hip and knee implant systems, including the MDM® (Modular Dual Mobility) hip replacement system, which was created to provide the three most important components for active patients-mobility, stability and durability.

"Hip replacements have been around since the 1970s and many people misunderstand what they can expect from them," says Dr. Harwin. "Some think it will only last 10 years, but that's not true. Contemporary implants, such as the MDM hip replacement, can offer patients a greater than 95 percent chance of it lasting at least 15 to 20 years."

Earlier implants consisted of a small ball that moved within a fixed plastic socket. While performing well, there were problems including loosening, instability and a limited range of movement. Newer implants sought to correct these issues with improvements such as larger heads. Dr. Harwin says, "Some implants, like those composed of "metal on metal," have been shown to have an unacceptably high failure rate and many surgeons have stopped using them." The MDM offers the benefits of a large head implant without the risks.

To understand the refinements, it's helpful to review how the natural hip is built and how it functions. The hip joint is located where the head of the thigh bone meets the natural socket inside the pelvis. This ball-like head is covered by a cushion called cartilage and is held in place by ligaments that allow the rotation, movement and stability that make walking and other activities possible. The natural hip has the right balance



of stability and flexibility. But age, wear and trauma can wear out the cartilage and cause deterioration of these functions and cause pain. This condition is called arthritis.

"People now have much more active lifestyles than in the past and they don't want to wait until their hip is so damaged by arthritis that they cannot move or enjoy life without pain," says Dr. Harwin. "People are living longer and want to continue the activities they've enjoyed throughout their lives. While I've done hip and knee replacements for young patients, I've also successfully done patients in their 90s. Everyone wants a good quality of life."

The MDM hip replacement system delivers such quality by delivering on innovative design, high-tech materials, modern surgical techniques and remarkable recoveries.

The design: The MDM uses a small metal or ceramic head that fits into a larger high-tech plastic head. The large plastic head then fits inside a smooth metal cup. Because of the large plastic head, the MDM renders the joint extremely stable so that active patients can engage in recreational and sports activities. The large head also allows a greater, more normal range of motion than standard implants. The small head moves within the plastic large head, and it in turn moves in the socket. This design is called a "dual mobility" cup.

The materials: Using a combination of high-tech, new-generation plastics, ultra-smooth metals, ceramics and porous metals, the wear rate has been reduced over 97 percent and a long-lasting natural adherence to the bone occurs.

The surgical technique: Minimally invasive surgical techniques use smaller incisions, cause less muscle damage and allow patients to recover faster.

The recovery: After less-invasive MDM hip replacement, patients recover faster with no precautions after surgery. "Patients can sit, stand, walk and move their hip without fear of it coming out of place. Most patients are recovered in three to four weeks and can drive, travel and return to normal activities," says Dr. Harwin. "And best of all, patients have an excellent chance that their replaced hip will provide them a high quality life for decades to come."

If you would like more information about the MDM or other hip and knee replacement alternatives at Beth Israel Medical Center, or if you would like to schedule an appointment with Dr. Harwin, call (212) 861-9800 or visit www.drharwin.com.