Defining a *new* standard of living

*A guide to hip replacement for the 21st century*
Although researchers have not yet discovered a cure for arthritis, it is a treatable disease. That’s good news if you are one of the estimated 20 million Americans who have the most common form of arthritis, which is called osteoarthritis.

Osteoarthritis can occur in any joint, including the hip joint. When nonsurgical treatments fail to relieve hip pain caused by arthritis, the patient and surgeon may consider surgery to replace the joint. Every year, approximately 200,000 Americans have total hip replacement surgery. This guide describes one of the latest advances in this procedure: The M²a™-Taper Metal-on-Metal Articulation.

The M²a™-Taper Metal-on-Metal Articulation was developed by Biomet Orthopedics, Inc., of Warsaw, Indiana. It is a joint prosthesis (implant) system designed for long-term performance. This product is one of the options available to you and your surgeon. For your hip replacement surgery, your surgeon will choose the implant that best meets your needs. The goal is to help you live the most productive and active life possible.

In this guide, we present questions and answers that will help you understand the M²a™-Taper Metal-on-Metal Articulation.
What is osteoarthritis?

Osteoarthritis is a disease that involves the breakdown of cartilage in one or more joints. Cartilage is a strong, smooth material that caps the articulating, or moving surfaces of the bones in the joint. It allows bone surfaces to glide against each other when you move. When the gliding cartilage breaks down or wears away, the bones grind against each other, which can cause pain and limited joint movement.

**Healthy Hip**

- Pelvis
- Healthy cartilage
- Joint capsule
- Synovial fluid
- Femur (thigh bone)

**Arthritic Hip**

- Eroded cartilage
- Swollen joint capsule
- Excess joint fluid
- Bone
**Am I a candidate for total hip replacement?**

Your doctor may consider total hip replacement surgery if your arthritis is not relieved by nonsurgical treatments, such as physical therapy, anti-inflammatory drugs, walking aids and support braces.

**What is total joint replacement?**

Total joint replacement is the surgical replacement of the arthritic ends of the bones that make up a joint.

The bones of the hip joint are the femur (thigh bone) and the pelvis (hip bone). The end of the femur is called the femoral head (ball). It fits into the acetabulum (socket) of the pelvis (hip bone). This is why the hip joint is often called a ball-in-socket joint.

During hip replacement surgery, the surgeon makes an incision, about six to eight inches long, to gain access to the joint. The surgeon removes the arthritic segments of the ball and socket. These parts are replaced with a specially designed implant made from metal, polyethylene (plastic), or both. The main parts of the implant are called the femoral component (in the thigh bone) and the acetabular component (in the pelvis). The new implant typically allows the joint to move freely and with much less pain.
Does total joint replacement work?

After a total joint replacement surgery, many patients experience reduced pain, increased mobility, and improved quality of life. The performance and life span of your implant depends on many factors, including your presurgical physical condition, anatomy, weight, activity, and willingness to follow your surgeon’s instructions before and after surgery.
Will I need further joint surgery after a total hip replacement?

Occasionally an implant needs to be surgically revised at a later time. Some of the reasons for a revision include an incorrectly positioned implant, infection, failure of the implant due to stress or overactivity, or failure of the patient to follow the physician’s instructions. A common reason for a revision is the wearing down of the polyethylene (plastic) in the implant.

In a traditional hip replacement damaged cartilage is replaced by polyethylene, which restores motion to the arthritic joint. As your new joint moves over the years—an average of a million times a year—the polyethylene may wear down from friction. The wear can cause debris in the joint space. This debris can cause the implant to become loose and fail to function properly. As a result, some people who have had total joint replacement surgery need surgical revision of the implant.
Is there an alternative today for polyethylene?

Yes. Using 21st century technology, Biomet has developed the M²a™-Taper Metal-on-Metal Articulation system. With this system, metal glides against metal—not polyethylene—in the new joint.

Extensive laboratory and patient testing has shown that the M²a™-Taper system has wear rates that are 10 to 100 times lower than those of traditional (polyethylene articulation) hip replacement systems.

This means there is a greater likelihood that the metal-on-metal hip can outlast traditional polyethylene.
What are the benefits of a metal-on-metal articulation?

The M²a™-Taper system eliminates the issue of polyethylene wear. As a result, it also virtually eliminates one potential cause of a second joint operation.

The M²a™-Taper Metal-on-Metal Articulation offers an additional benefit: “Self-Healing Tribology.” This means that the implant has the ability to repair itself if the surface is scratched. Combined with the natural synovial fluid, which serves as a lubricant in all joints, the M²a™-Taper will show less wear as your activities increase over time. This helps you return to—and maintain—the lifestyle you enjoy.
Do metal-on-metal implants increase my risk of cancer?

Metal-on-metal hip implants have been studied and reported on for more than 35 years. In that time, there have been no studies, reports, or accounts of any cases of cancer that have been attributed to the use of a metal-on-metal hip surface.

Would I benefit from the M²a™-Taper Metal-on-Metal Articulation System?

The M²a™-Taper is just one of the options available in total hip replacement implants. Only your orthopedic surgeon can determine if you are a candidate for this system or if another type of implant would better suit your needs and unique situation. To find out if you could benefit from the M²a™-Taper Metal-on-Metal Articulation, make an appointment to discuss it with your surgeon.
What should I ask my surgeon before scheduling my surgery?

- What implant have you chosen for my hip replacement?
- What are the clinical results of the implant system you have chosen?
- May I read the literature that reports those results?
- What are your personal clinical results?
- What, in your opinion, makes this implant the very best available for my condition?

Where can I get more information concerning this treatment?

If you would like to know even more about the M²a™-Taper Metal-on-Metal Articulation, you may visit Biomet via the internet at www.metalonmetal.com.
References


3. Data on file at Biomet, Inc.

4. M²a™-Taper package insert included.

M²a™-Taper is a trademark of Biomet, Inc.
Contact your local surgeon
or visit Biomet on the web at www.metalonmetal.com