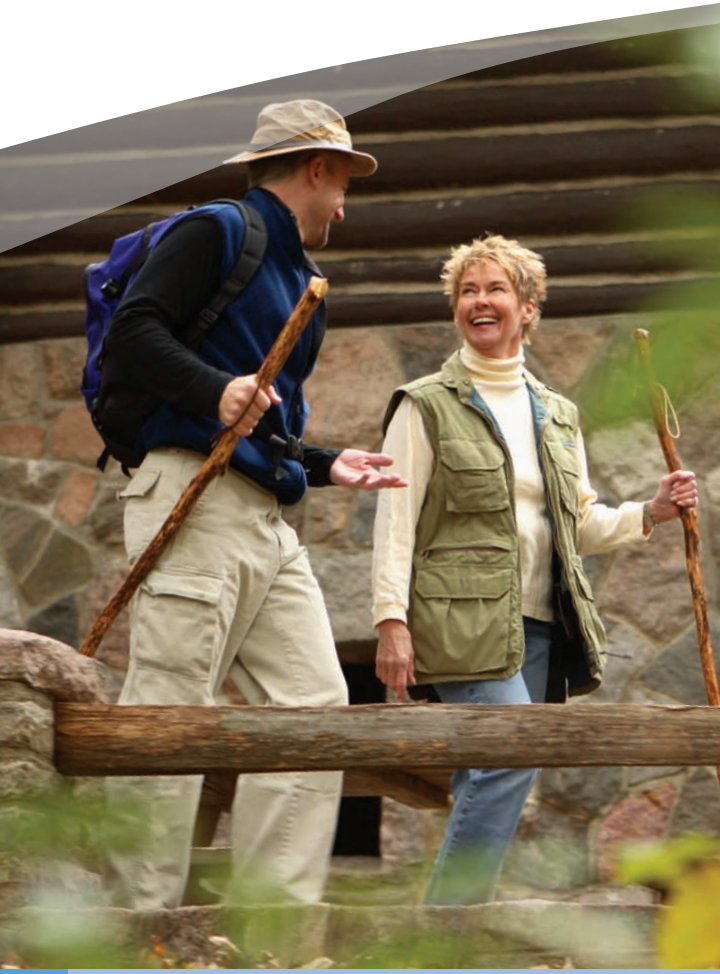
Advances in

Hip Replacement

Technology



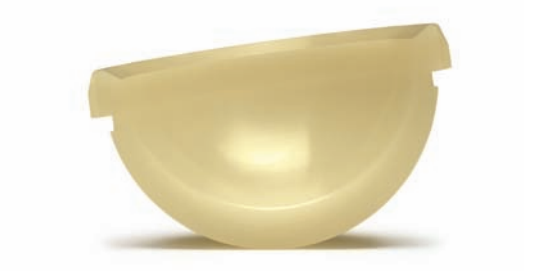
Advances in **Hip Replacement** Technology

Biomet Orthopedics develops advanced technologies for total joint replacement. These technologies are designed to enhance the longevity and performance of orthopedic implants.

This brochure will help educate you about modern advances in hip implant technology. This brochure is not intended to replace the experience and counsel of your orthopedic surgeon. Only an orthopedic surgeon can diagnose your condition and recommend the appropriate treatment options. Any questions or concerns you may have should be directed to your orthopedic surgeon.

E1™ Antioxidant Infused Technology Hip Liners

Biomet's E1™ Antioxidant Liners merge the benefits of Vitamin E with total joint replacement. Hip liners are widely used for total hip replacement, many of which can react with oxygen, creating an effect similar to a browning apple or a rusting car.[1] This reaction is known as "oxidation." Oxidation can weaken liners over time increasing the risk of excessive wear and fracture. E1™ liners are produced with Vitamin E, a natural antioxidant which, in laboratory testing, has shown to protect the material from these effects of oxidation.[2] Biomet is currently the only company offering antioxidant technology in hip or knee bearings.



E1™ Antioxidant Infused Technology Hip Liner

For patient risk information about E1™ and total hip replacement, talk to your surgeon and please visit Biomet.com.

Microplasty® Minimally Invasive Surgery

Today's well-informed patient has made minimally invasive total hip arthroplasty one of the most demanded procedures in orthopedics. To satisfy this demand, Biomet introduced Microplasty® minimally invasive hip stems for use with the ASI technique. Unlike other minimally invasive hip replacement techniques, the Biomet® ASI technique uses an incision at the front of the hip instead of the side or back of the hip. This modified incision placement allows surgeons to approach the hip joint directly by going between the muscles surrounding the hip joint. Other approaches would require cutting the muscles and/or tendons surrounding the hip.

Traditional Incision

ASI Incision

The Biomet® ASI minimally invasive hip replacement procedure is designed to reduce the trauma to the tissues surrounding the hip joint. This offers a more effective procedure for rapid functional recovery after surgery.[3] The Biomet® ASI technique has the advantage of potentially offering a minimally invasive option for patients who would not otherwise be considered for other minimally invasive approaches.

The Microplasty® Mini Stems are nearly half the size of traditional hip stems. Their reduced size makes them bone conserving and tissue-sparing, suited to minimally invasive techniques and provide an alternative to hip resurfacing. Many patients are not candidates for other minimally invasive hip surgery techniques due to physical stature, high BMI, or other considerations.

For patient risk information about the ASI technique please talk to your surgeon and visit Biomet.com.

Traditional Stem

Mini Stem

Regenerex® Porous Metal

Regenerex® Porous Titanium Construct is a highly porous metal. It is engineered to allow bone to fixate to the implant, which can enhance implant fixation and address implant loosening that could otherwise eventually lead to the need to revise the implant. Regenerex® Porous Titanium Construct provides an optimal structure for bone attachment, initial implant stability, strength, and flexibility. Regenerex® technology is used in multiple applications throughout knee, hip and shoulder reconstruction.

For patient risk information about total joint replacement with Regenerex® technology, please talk to your surgeon and visit Biomet.com.

Regenerex® Porous Titanium Construct Acetabular Cup

Hundreds of thousands of people undergo total hip replacement every year in the United States. We realize that the decision to have surgery is sometimes difficult. We hope this brochure has helped you understand some of the advances in hip replacement surgery so that you can make the best decision for yourself.

References

1. Kurtz, Steven, "UHMWPE Handbook: Second Edition." Elsevier, 2009, Chapter 22 (pp. 325–336).
2. Data on file at Biomet. Bench test results not necessarily indicative of clinical performance.
3. "A Clinical Comparative Study of the Direct Anterior With Mini-Posterior Approach," Nakata, K; Nishikawa, M; Yamamoto, K; Hirota, S; Yoshikawa, H; *The Journal of Arthroplasty*, Vol. 24, No. 5, pgs. 698–704, 2009.

Biomet is a manufacturer of orthopedic implants and does not practice medicine. Only an orthopedic surgeon can determine what treatment is appropriate. Individual results of total joint replacement may vary. The life of any implant will depend on your weight, age, activity level, and other factors. There are potential risks to joint replacement surgery including loosening, wear, fracture, or infection, any of which can require additional surgery. For more information on risks, warnings, and possible adverse effects, talk to your surgeon and see the Patient Risk Information section found within Biomet.com. Always ask your doctor if you have any questions regarding your particular condition or treatment options.

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