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Hip Replacement vs. Hip Resurfacing

By [*THE NEW YORK TIMES*](#)

Jane Brody, the Times's Personal Health columnist, [recently reported on less invasive techniques for hip replacement](#) that reduce complications and speed recovery. Dr. Patrick A. Meere, an orthopedic surgeon at New York University who specializes in hip and knee arthritis surgery, joined the Consults blog [to answer reader questions](#). Here, Dr. Meere responds to several readers who asked about hip replacement versus hip resurfacing. In addition, see Dr. Meere's many responses in [the Comments section of "Improving on the Hip Replacement"](#); additional responses will be posted in the coming days, so check back for updates.

Middle Aged, Active and in Need of a New Hip

Q.

I am 58 years old and have been told I need a right hip replacement due to arthritis. In the future, I may also need to replace the left hip for the same reason.

Prior to my hip problems, I led an active lifestyle: downhill skiing, swimming, biking, hiking, jazz dancing, horseback riding and yoga. I would like to know whether a hip resurfacing would be a better choice for me rather than an anterior hip replacement?

What are the pros and cons of each procedure? How long does each of the prosthetic devices last? What are the issues with each of the different devices (metal vs. ceramic vs. plastic? Thank you for your kind advice. *Loretta, New York, N.Y.*

A.

Dr. Patrick Meere responds:

Hip resurfacing involves a replacement of the joint's articular surface only. A total hip replacement, or arthroplasty, on the other hand, involves surgical removal of the neck of the femur (thighbone) and insertion of a stem deep inside the bone to connect with the pelvic socket and liner.

Hip resurfacing should be an integral component of any medical practice involved in hip reconstruction. It is a part of my practice. The indications for hip resurfacing, however, have narrowed significantly over the last few years. An index, called the SARI, was developed to address the appropriateness of the operation for any specific case. Small-framed women and women of childbearing age or those with osteoporosis should abstain. The ideal candidate would be a robust middle-age man intent on returning to heavy-loading sports like running.

Hip resurfacing is technically more demanding than a hip replacement and is certainly not minimally invasive. For the right patient, though, it is a great option.

Here are some additional Web resources for more information:

[The Journal of Bone and Joint Surgery: On outcomes after hip resurfacing](#)

[The Orthopedic Clinics of North America: On selecting patients for hip resurfacing](#)

In your case, a hybrid hip replacement with resurfacing may be an appealing option. This approach is good for patients seeking hard-bearing longevity who place an emphasis on stretching sports rather than running or contact sports. In such cases, a metallic anatomic caliber resurfacing head can be articulated with the linerless resurfacing socket, yet be mounted on a total hip stem into the femur.

This hybrid technique has gained much popularity over the last two years. It offers flexibility, longevity, speed of recovery and compatibility with minimally invasive surgeries. Hard on hard bearings – like ceramic and metal-on-metal — are very durable, typically lasting over 20 years, though we are still unsure about the long-term rate of potential limited complications like allergy or squeaking.

Minimally Invasive Surgery vs. Hip Resurfacing

Q.

How does the procedure described in this article compare with hip resurfacing, which has been very popular overseas for many years? *Richard, Seattle*

A.

Dr. Patrick Meere responds:

Minimally invasive surgery and hip resurfacing generally apply to different groups of patients.

A hip resurfacing involves a large incision, with an antithetical large dissection that cuts and stretches more muscles to preserve the bone. It should therefore generally be reserved for younger and stronger individuals who can “take it.”

Minimally invasive surgery is a method of dissection that applies mostly to hip replacement surgery. It is more difficult to perform than standard surgeries and should be done by a skilled surgeon who does a large number of such procedures. Minimally invasive procedures may result in less blood loss and shorten the length of time the patient must spend in the hospital. They generally also allow for a faster recovery and return to work, with the implant lasting just as long. Since muscles and capsular tissues around the hip are preserved, a minimally invasive approach should also afford greater

stability in the short term, which may lead to a better overall range of motion for activities of daily living like reaching for socks and shoes, or for recreational activities like yoga.

Depending on the type of procedure done, however, minimally invasive surgery may carry inherent supplemental risks when compared with the standard method. It is important for the patient and surgeon to discuss the risks and benefits in detail. Look for a surgeon who is well versed in all techniques to avoid those who may have a natural bias toward those techniques he or she is most comfortable with.

Minimally Invasive Hip Replacement vs. the Birmingham Hip Resurfacing

Q.

How does this newer total replacement procedure compare to the Birmingham hip resurfacing procedure in terms of stressfulness, recovery, etc. If given the option for either — which would you think is preferred?*Sapmir Tap, San Francisco*

A.

Dr. Patrick Meere responds:

Specifically regarding stiffness, it should be noted that most experienced hip resurfacing surgeons have realized the critical need for delicate handling of the gluteal muscles. Squat, muscular males may have massive and rigid muscles, with poor stretch potential. Overzealous tugging by the surgeon, as required to move the to-be-preserved head out of the way to prepare the socket, may lead to a complication known as heterotopic bone formation. In this condition, the muscles stiffen tremendously because of the development of large chunks of calcified material within the muscle mass. This leads to paradoxical stiffness, which can be crippling. Some studies suggest this complication occurs at a rate of over 10 percent, compared to less than 2 percent for a regular hip replacement.

I personally now reserve the resurfacing option for men younger than 65 with good bone stock who are intent on returning to heavy-loaded sports, and with a SARI index of less than 2.

A hybrid solution is an ingenious compromise for patients seeking hard-bearing longevity who place an emphasis on stretching sports (like yoga) rather than running or contact sports. In such cases, a metallic anatomic caliber resurfacing head can be articulated with the linerless resurfacing socket, yet be mounted on a total hip stem into the femur. This technique has gained much popularity over the last two years. It offers flexibility, longevity, speed of recovery and compatibility with minimally invasive surgeries.

Anterior Hip Replacement vs. Birmingham Hip Resurfacing

Q.

Is the anterior hip replacement the same as the procedure called the Birmingham hip resurfacing? If not, how do they differ?*LM, Boston*

A.

Dr. Patrick Meere responds:

No. The anterior hip replacement and Birmingham hip resurfacing are distinct entities.

The direct anterior approach, as popularized over the last several years by Dr. Joel Matta, is a surgical route to the hip. It provides more direct access and has many advantages. But even for trained surgeons, it cannot be considered the “only” approach. I reserve this approach for younger athletic patients with good bone mass and only mild deformity.

This link, from the Hip and Pelvis Institute, provides [more information about the anterior approach to hip replacement](#).

The Birmingham hip resurfacing is a type of replacement in which the femoral piece consists of an anatomic size crown, resting on native bone. There is no liner in the system, which allows for a much larger ball diameter. The articulation bearings are of the metal-on-metal kind. The Birmingham hip resurfacing class of implant is best suited for male patients with excellent bone mass, no chronic inflammatory disease and a larger body frame. The technique does allow for heavier usage, as the weight is borne by the native bone. Often touted as a minimally invasive procedure, it actually requires a larger incision and dissection, and a longer convalescence. It is true, however, that it is more bone preserving than a total hip replacement.

Here is a link to a popular independent Web site about [Birmingham hip resurfacing](#).

For more information, see Dr. Meere’s responses at [Consults: Improving on the Hip Replacement](#), and [The Times Health Guide: Hip Replacement](#).

Dr. Meere is an associate professor of orthopedic surgery and chief of adult orthopedic services at NYU’s Hospital for Joint Diseases and Langone Medical Center. For more information, see Dr. Meere’s Web site at [DrPatrickMeere.com](#), or e-mail him at [info@drpatrickmeere.com](#)