

Orthopedics



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Images courtesy Exactech

Reverse Shoulder Replacement Helps New Set of Patients

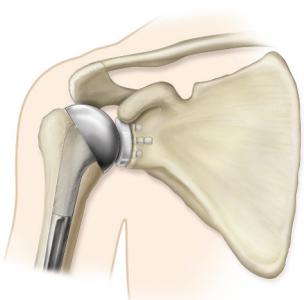
An innovation in shoulder replacement has made joint implantation a success for patients who have shoulder arthritis due to irreparable rotator cuff damage—a population that did not have a good option in restoration of this functional area in the past. Reverse shoulder replacement switches the ball-and-socket configuration of the joint, using artificial components to replace the natural socket (glenoid) on the shoulder side with a ball (glenosphere) and the natural ball at the top of the arm with a humeral head that has a concave cup.

“This changes the center of rotation so the joint is less likely to shift with the deltoid now providing the primary movement, absent the force and stabilization of the rotator cuff,” said Lourdes orthopedic surgeon, Sean McMillan, DO, who is among a handful of surgeons performing the procedure in southern New Jersey. Candidates for the procedure have gross osteoarthritis causing pain and/or pseudoparalysis of the joint (orthopedic-based inability to lift the arm above the shoulder or head) not relieved by conservative treatments and a non-repairable rotator cuff—a population that is predominantly over 60 years of age.

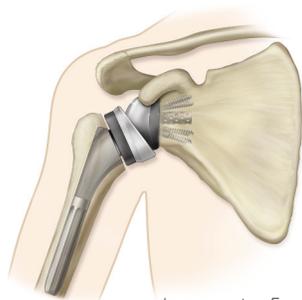
Shifting Center of Rotation for Stability and Strength

In the normal shoulder, muscles and tendons of the rotator cuff, including the supraspinatus, help balance and hold the ball of the arm bone in place where it rests against the socket, countering the upward pull of the deltoid muscle. In a patient with major and intractable rotator cuff degradation, the correct fulcrum for rotation is lost due to the absence of this soft tissue, and the ball at the top of the arm escapes superiorly out of the socket during arm elevation, grinding against bottom of the acromium. The deltoid muscle also provides weak movement due to its short lever.

Standard shoulder replacement



Reverse shoulder replacement



Images courtesy Exactech

Reconstruction with a reverse prosthesis moves the center of rotation of the shoulder joint medially and inferiorly, so that it is contained more centrally. It brings the point of deltoid force lower on the arm.

The result is a newly fixed fulcrum that allows for a longer line of pull and thus increased deltoid tension in raising the arm. The deeper socket prevents the cup at the humeral head (now on the arm) from sliding up and down as the arm is elevated. The surgeon screws the ball plate into the bone of the shoulder blade and cements the prosthesis that holds the cup into the arm bone.

Lourdes performs a far higher volume of reverse shoulders than the vast majority of programs.

“These patients have often torn their cuff 10 or 20 years ago, and their shoulder has continued to lose function during that time to the point where they can’t reach high enough to do their hair or get a dish out of the cupboard,” said Dr. McMillan, chief of orthopedics at Lourdes Medical Center of Burlington County.

Improved Joint Resolves Pain and Returns Function

Shoulder degeneration after lost rotator cuff function affects men and women who have a predisposition to the problem and/or active lifestyle or repetitive trauma. The reconfigured joint anatomy after a reverse shoulder replacement adds long-term stability and gives the deltoid muscle the tension sufficient to power the shoulder.

Expected outcomes for patients include:

- Improved range of motion
- Improved function and ability to perform daily activities
- Significant shoulder pain relief

The experienced Lourdes team offers the surgery at Lourdes Medical Center of Burlington County, where it is currently completing about 70 such operations per year—a far higher volume of reverse shoulder procedures than the vast majority of programs. The procedure also can be used for revision surgery after failed shoulder replacement or shoulder fractures. ✦

For more information, visit www.lourdesnet.org or call 1-888-LOURDES (1-888-568-7337).



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Repairing Patches of Cartilage in the Knees to Slow Joint Degeneration

A significant portion of patients with knee pain have damage to the cartilage that cushions the knee and are at risk for needing full or partial knee replacement after years of increasing pain. But many such patients with early, discrete areas of cartilage damage in otherwise healthy knees are candidates for cartilage transplantation.

Lourdes Medical Center of Burlington County is one of the few centers in southern New Jersey that offers the treatment, with emphasis on two forms:

- Chondrocyte transplant (with live, preserved, particulated chondrocyte material harvested from deceased juvenile donors)
- Bone-plug transplant (with a section of knee bone and cartilage material harvested from a cadaver)

The Lourdes team performs both operations arthroscopically in about 30 minutes as a same-day procedure; however, both forms of transplant require several weeks of non-weight-bearing recovery.

The orthopedist secures the minced articular cartilage in the defective joint space with fibrin adhesive. The chondrocytes are capable of spontaneous hyaline-like matrix formation and do not

stimulate an immune response. Chondrocyte implantation is better for younger patients, while the bone plug is less age restrictive.

“These procedures are effective in relieving pain in patients with a focal area of damage, and can stave off partial knee replacement in some patients,” said Lourdes orthopedic surgeon Efrain Paz, DO. 

For more information, visit www.lourdesnet.org or call 1-888-LOURDES (1-888-568-7337).

PT and Imaging Now in New Hanover Township

Lourdes Health System is now offering radiology and physical therapy services adjacent to Joint Base McGuire-Dix-Lakehurst in eastern Burlington County.

LourdesCare at New Hanover (25 Wrightstown-Cookstown Road) provides greater access to Lourdes’ nationally recognized programs, physicians and therapists, as well as advanced diagnostic and treatment services—all in one convenient location.

The physical therapy staff cares for patients with a range of conditions, including neck and back pain; sports and accident-related injuries; joint replacement post-surgical needs; concussion injuries, dizziness and balance disorders; and post-surgical rehabilitation. Radiology services provided include X-ray, MRI, CT and ultrasound. 

Call 609-901-3030 to make an appointment.

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