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Founder of the Orthopedic Center, Dr. O'Brien is a fellowship-trained, Board Certified orthopedic surgeon in practice since 1996. He completed his medical school and orthopedic residency at Hahnemann University Hospital in Philadelphia, PA, and pursued a Hand Surgery Fellowship at the University of Pennsylvania.

With extensive expertise in knee, hip, and shoulder arthroscopic surgery, rotator cuff repair, and complex fracture treatment, Dr. O'Brien is dedicated to providing outstanding orthopedic care. He is affiliated with Cape Canaveral Hospital and Palm Bay Hospital, ensuring his patients receive comprehensive treatment with advanced surgical techniques.



Shoulder Rotator Cuff Tears: Modern Repair Options

A rotator cuff tear can be a painful and limiting condition, making everyday activities—like lifting a grocery bag or reaching for a high shelf—challenging. While some people try to manage the discomfort without surgery, leaving a rotator cuff tear untreated often leads to worsening symptoms over time. Understanding the long-term effects of neglecting a rotator cuff tear and the available treatment options can help individuals make informed decisions about their shoulder health.

The Risks of Leaving a Rotator Cuff Tear Untreated

Rotator cuff tears do not typically heal on their own. Instead, they tend to worsen over time, leading to:

Increased Pain: Many people find their discomfort progressively intensifies, impacting their daily activities and sleep.

Tear Enlargement: What starts as a small tear can gradually become larger, making future treatment more complex.

Muscle Degeneration: Over time, the muscles around the tear weaken and develop fatty deposits, reducing strength and function.

Research has shown that untreated rotator cuff tears in younger patients (under 65) tend to grow larger and cause more pain as time passes. This highlights the importance of addressing the issue early rather than waiting for symptoms to become debilitating.

Repair Techniques: Single-Row vs. Double-Row Repair

When surgery is needed, two common techniques are used: single-row (SR) and double-row (DR) repair. Each method has its own advantages.

Double-row repairs generally provide a stronger repair, leading to better tendon healing and fewer retears. DR repairs also have better long term results, especially for larger tears (over 3 cm).

Despite the stronger repair structure of doublerow techniques, studies show that both singlerow and double-row methods provide similar improvements in shoulder function. While double-row repairs may offer slightly better tendon integrity, the differences in day-to-day function between the two techniques are often minimal in the long run.

Key Takeaways

- Neglecting a rotator cuff tear can lead to worsening pain, muscle deterioration, and a larger tear over time.
- Double-row repairs provide stronger structural integrity and lower the risk of retears, particularly for larger tears.
- Both single-row and double-row techniques result in similar functional recovery for most patients, making post-surgical care and physical therapy crucial for success.
- Recent innovations in biologic treatments may further improve healing and long-term outcomes, offering additional options for patients.
- Consulting with an orthopedic surgeon experienced in the latest surgical and biologic advancements, will ensure the best care for rotator cuff injuries.

For massive rotator cuff tears, double-row repairs may lead to better long-term outcomes when a complete repair is possible. However, the overall benefits of repair tend to decline over time, reinforcing the importance of early intervention.

The Future of Rotator Cuff Repair: Tissue Augmentation & Biologic Advances

One of the most exciting areas of innovation in rotator cuff repair is the use of tissue augmentation and biologics to improve healing. Researchers are exploring ways to enhance tendon repair and reduce the risk of retears through growth factors, stem cells, and collagen-based scaffolds that promote better tissue regeneration.

At The Orthopedic Center, our team stays at the forefront of these advancements. Our surgeons are experienced in utilizing the latest techniques, including biologic augmentation, to provide patients with the best possible outcomes for their shoulder injuries.

Selected References:

Moosmayer S, Gärtner AV, Tariq R. (2017). J Shoulder Elbow Surg, 26(4), 627-634.

Hill JR, Olson JJ, Sefko JA, et al. (2025). J Shoulder Elbow Surg, 34(2), 430-440.

Hein J, Reilly JM, Chae J, et al. (2015). Arthroscopy, 31(11), 2274-81.

Zhang Q, Ge H, Zhou J, et al. (2013). PLoS One, 8(7), e68515.

Lapner P, Li A, Pollock JW, et al. (2021). Am J Sports Med, 49(11), 3021-3029.

Plachel F, Siegert P, Rüttershoff K, et al. (2020). Am J Sports Med, 48(7), 1568-1574.

Denard PJ, Jiwani AZ, Lädermann A, et al. (2012). Arthroscopy, 28(7), 909-15.