

# Business Plus Spotlight

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## Rotator Cuff Tears: Cause, Prevention and Treatment





Dr. Halbrecht, orthopedic surgeon and sports medicine specialist, heads the Boulder Regenerative Medicine division at Boulder Institute for Sports Medicine. (Photo: Boulder Institute for Sports Medicine).

# Rotator Cuff Tears: Cause, Prevention and Treatment

**Local orthopedic surgeon and renowned expert in regenerative medicine and stem cell therapy, Dr. Joanne Halbrecht, offers new treatment options for rotator cuff tears.**

By Paul Hackett

It starts as mild discomfort after exercise. You did some yard work, or played a few rounds of tennis, and now your shoulders are stiff and achy.

It could just be the natural effects of getting older, but that lingering soreness might be something more. It could be an injury – or even a complete tear – of your rotator cuff. Among those 60 and older, the incidence rate can range between 20 and 50 percent. Left untreated, this condition can become extremely painful and debilitating.

We recently visited with Dr. Joanne Halbrecht at the

Boulder Institute for Sports Medicine to learn about the causes and treatment of rotator cuff tears (RCTs), and how these injuries can be prevented.

Dr. Halbrecht, a board certified orthopedic surgeon and sports medicine specialist, heads the Boulder Regenerative Medicine division at Boulder Institute for Sports Medicine. She has earned a worldwide reputation as an expert in regenerative medicine and stem cell therapy and has appeared on CBS television’s American Health Front and NBC 9News in Denver to speak on the subject.

“Unless you have an injury, most people aren’t quite sure what the rotator cuff is,” Dr. Halbrecht says. “The rotator cuff consists of four tendons that attach to the arm bone, or humerus. These tendons form a cuff of tissue at the top of the shoulder. The cuff tendons attach to the muscles that help lift the arm overhead, or rotate it towards

and away from the body.”

The symptoms of rotator cuff damage often begin with intermittent soreness of the shoulder, which gets worse with overhead activity or lying on the shoulder. There may be weakness or decreased range of motion, Dr. Halbrecht explains. “I often see patients who have had intermittent soreness for some time, then they fall on an outstretched arm and are unable to lift their arm

overhead. This is someone who had a small tear that was made larger due to the fall.”

Rotator cuff tears commonly occur due to lack of blood supply and the decreased potential for healing that comes with age. Over time, RCTs can occur naturally. Treatment for this condition can vary, depending on the size of the tear and the age, range of motion and overall functionality of the patient. It



Dr. Halbrecht was featured on 9News in Denver, discussing her groundbreaking work in stem cell therapy. (Photo: Boulder Institute for Sports Medicine)

“My regenerative medicine approach to rotator cuff tears involves a fat graft for partial thickness tears. I use the patients’ own fat which I harvest in the office.”



A symptomatic partial tear or full-thickness rotator cuff tear will often require surgery to repair the damage. (Photo: Boulder Institute for Sports Medicine).

also matters how long the cuff has been torn.

As the muscles around the shoulder become weak, the mechanics of the shoulder can change, causing pain. Physical therapy can help restore strength and flexibility to this area. A small partial thickness tear can often be treated with physical therapy. Of course, it is important to work with a therapist who understands shoulder biomechanics. The wrong therapy can actually make shoulder pain worse.

A symptomatic partial tear or full-thickness rotator cuff tear will often require surgery to repair the damage.

What about steroid injections? Dr. Halbrecht says, “a steroid injection can decrease inflammation, but can also decrease the success of rotator cuff repair surgery, as it weakens the cuff.” She

recommends her, over-60, patients who are experiencing shoulder pain to have an MRI prior to a steroid injection to assure that the cuff is intact.

**Dr. Halbrecht is an innovator in regenerative medicine and cell therapy**

“My regenerative medicine approach to rotator cuff tears involves a fat graft for partial thickness tears. I use the patients’ own fat which I harvest in the office. The procedure is relatively painless and takes about an hour. Fat has 300 to 500 times more stem cells than bone marrow. Stem cells have the potential to stimulate healing of the torn rotator cuff.

“For a full thickness RCT, I use a fat graft together with surgical repair. The failure

rate for a rotator cuff tear in a 65-year-old is about 35 percent, due to lack of blood supply, scar tissue formation and decreased potential for healing. A study revealed that, ten years after rotator cuff repair and stem cell therapy, the success rate was 87 percent, but a repair without stem cell therapy had only a 44 percent success rate.”

Regenerative medicine or stem cell therapy alone has not been shown to heal a full thickness or complete RCT, Dr. Halbrecht notes.

**Cell Therapy can help you heal more quickly**

It can take up to six months to return to full activity following a rotator cuff surgery. “I immobilize the shoulder in a sling for one month after the procedure,” Dr. Halbrecht explains. “During that time, the patient receives physical therapy and performs a home exercise program. I have found that using a fat graft accelerates the return to full activity by one to two months.”

**There are times when surgery can't help**

A longstanding large tear that is torn and retracted cannot be repaired. A reverse total shoulder replacement can relieve pain and improve function. If the patient is not

a candidate for surgery due to advanced age or poor health, a steroid injection can be performed.

**When is it best to seek treatment for shoulder pain?**

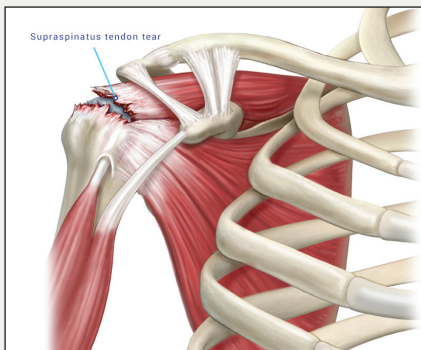
A traumatic injury – such as a fall – should be evaluated immediately to rule out a fracture. If there is a gradual onset of pain that does not resolve with two weeks of rest and taking over-the-counter NSAID’s (such as Aleve or Advil), it is best to seek evaluation with an orthopedic surgeon to provide the most accurate diagnosis and optimal treatment recommendations.

**Boulder Regenerative Medicine helps you heal**

To learn more about how Dr. Joanne Halbrecht and Boulder Regenerative Medicine can help you return to an active, healthy lifestyle, visit [boulderinstitute.com](http://boulderinstitute.com) or call 303.449.8807. Clinic hours are Monday through Thursday, 8:30 a.m. to 5 p.m.; Friday 8:30 a.m. to 3 p.m.



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(Illustration courtesy of ION Medical Designs, LLC.)

**Avoiding Rotator Cuff Tears**

Prevention is the best medicine. Dr. Joanne Halbrecht offers some advice on how to avoid RCT injuries.

- Avoid sudden stress on the arm and shoulder muscles. Over the age of 60, it is best to avoid things like pulling a starter for a gas lawn mower or snow blower.
- Refrain from performing any overhead or repetitive lifting activity that you are not accustomed to, like painting a house or moving furniture. These activities put stress on the cuff and can cause a tear.”

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