

How Stem Cells Can Help Sports-Related Injuries

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By [UHBlog](#)



Pitcher Bartolo Colon has done it. So has golfer Tiger Woods and tennis player Rafael Nadal. If you've suffered a sports-related injury, you may be a candidate to undergo stem cell therapy, too.

“It's a way to treat injuries non-surgically by harnessing the power of one's own body or cells to regenerate tissue or stimulate healing,” says orthopedic sports surgeon [Daniel Zanotti, MD](#).

“It's a tool we use to get patients back into their game, just like physical therapy, cortisone or braces.”

What is Stem Cell Therapy?

Stem cell therapy is a relatively new practice in the United States, although it has been used in Europe for more than three decades.

Stem cell therapy involves harvesting stem cells from somewhere in a patient's body, such as bone marrow or fat, or from donated umbilical cord tissue. The harvested material is spun in a centrifuge to isolate the stem cells, which are then injected into the injured ligament, disc, joint or tendon.

Platelet-rich plasma therapy (PRP) is a slightly different approach. A centrifuge concentrates platelets from the patient's own blood. Isolated platelets are then injected into the patient's affected site to promote healing.

“When we isolate the stem cells, we can isolate platelets at the same time,” Dr. Zanotti says. “There are some theories that a combination of the two may have an even more beneficial effect.”

These therapies are helping athletes and others recover from injuries, such as:

- Tennis elbow
- Plantar fasciitis
- Achilles tendonitis and other tendinopathies
- Medial collateral ligament (MCL), anterior cruciate ligament (ACL) and other ligament tears
- Traumatic sports injuries, including brain injuries
- Arthritis and other joint issues

The number of injections needed varies, depending on the injury, but generally falls between two and six done over several visits.

“Full ligament tears take longer to heal than partial ones, so it's variable, but these treatments tend to increase healing potential compared to patients who don't have any cell therapy injections,” Dr. Zanotti says.

The treatments are painless, noninvasive and safe for most people – from student competitors to senior athletes. The only potential side effect? As with any shot, patients may experience minor, temporary irritation at the injection site.

[Daniel Zanotti, MD](#) is an orthopedic specialist at [University Hospitals Sheffield Health Center](#). You can [Request an Appointment](#) with Dr. Zanotti or any University Hospitals doctor online.