



EmergeOrtho

Everything You Need to Know About Orthobiologic Treatments: PRP and More

By: EmergeOrtho—Triangle Region



Table of Contents

What are Orthobiologics?	3
Types of Orthobiologic Treatments	4
Why Should You Consider Orthobiologic Treatments?	5
FAQs about Orthobiologic Treatments	5
Explore Orthobiologic Treatments at EmergeOrtho—Triangle Region	6



What are Orthobiologics?

Today's medicine is more advanced than ever before.

From life-saving drugs to robot-assisted surgeries, we have access to treatment options that were unheard of even just a few decades ago.

However, even with these advances, some of the most effective treatments come directly from our bodies. The human body naturally produces substances that can aid in—and sometimes even speed up—the healing process. Injecting higher concentrations of these substances, known as [orthobiologics](#), directly into the injury site can spur the natural healing process for injuries to muscles, tendons, bones, and more. The therapy can stimulate new cell and blood vessel growth, increase the production of collagen and tissue, and help reduce inflammation and pain.

EmergeOrtho—Triangle Region is proud to be at the forefront of orthobiologic medicine. We offer a range of treatments under the umbrella of regenerative medicine as part of our com-mitment to helping all patients Emerge Stronger. Healthier. Better.

What You'll Learn in This eBook

To help you better understand orthobiologics and how they may help you, this eBook will explain how different orthobiologics work, who may be a candidate for the treatment, and what to expect when you receive treatment.



Types of Orthobiologic Treatments

Although the field of regenerative medicine is rapidly growing, and new treatments and technologies are being developed every day, EmergeOrtho—Triangle offers three primary types of orthobiologic treatments: [Platelet Rich Plasma \(PRP\) injections](#), [bone marrow concentrate injections](#), and [adipose \(fat\) tissue transfers](#).

Platelet Rich Plasma (PRP)

[PRP therapy](#) takes advantage of the high concentration of growth factors found in blood platelets. Growth factors help spur the development of new, healthy tissue, which heals injuries and helps reduce pain.

PRP treatment involves extracting some of your blood, then placing it in a centrifuge. The high-speed spinning separates the plasma and concentrates the growth factors. The plasma contains 5-10 times the concentration of growth factors than blood alone. This concentrate is injected into or near the injured area to facilitate a healing environment.

Sometimes, physicians also use PRP during surgery. The platelet rich plasma is grafted directly to the affected tissue to facilitate a healing environment.

Although PRP is often used to help patients avoid surgery, it can also support post-surgical healing and recovery. Some of the injuries and conditions that respond to PRP include:

- Achilles tendinopathy
- ACL reconstruction
- Cruciate ligament injuries
- Fractures
- Knee osteoarthritis
- Patellar tendinosis
- Plantar Fasciitis
- Rotator cuff injuries
- Shoulder impingement
- Shoulder osteoarthritis
- Tennis elbow

Bone Marrow Stem Cell Concentrate

When your body needs additional repair cells for healing, your physician may recommend using a concentrate of bone marrow that contains stem cells. Stem cells have properties of being able to transform existing cells into different types of cells. This form of therapy helps decrease pain and improve function.

Much like PRP injections, treatments involve concentrates of bone marrow with high concentration of stem cells, usually from the posterior aspect of the pelvis. The cells are then separated via centrifuge, creating a concentrate that is injected into the injured area.

Injections using stem cell concentrates can treat multiple injuries and conditions, including:

- Achilles tendon rupture
- ACL ligament lesions
- Cartilage defects
- Femoral head osteonecrosis
- Fractures
- Meniscopathy
- MCL lesions
- Osteoarthritis
- Osteogenesis imperfecta
- Rotator cuff injuries
- Spinal injuries

Lipogems Adipose (Fat) Tissue Transfer

Fat cells in your body can help repair injured tissue and joints, especially in the shoulder and knee. Lipogenesis adipose tissue transfer, also known as a fat transfer, begins by extracting fat cells from the abdomen, thigh, or side. The cells are processed using a special machine that activates them. They are then injected into the affected area.

Some of the more specific conditions that benefit from this form of regenerative medicine include:

- Cartilage tears in the knee (meniscus)
- Joint pain
- Joints damaged by osteoarthritis
- Rotator cuff tears
- Shoulder stiffness
- Sports-related/overuse injuries affecting the ligaments, muscles, and tendons



Why Should You Consider Orthobiologic Treatments?

Orthobiologics, also known as biologics, stem cell therapy, cell-based therapy, and regenerative medicine, are gaining acceptance and becoming more common for several reasons.

Some of the most notable benefits of orthobiologics include:

- Reduced pain
- Reduced inflammation
- Cells that Promote Faster healing
- Cells that Promote Improved tissue regeneration
- Improved function

It's also important to note that regenerative medicine relies on naturally occurring substances taken directly from your own body—not synthetic drugs or chemicals. This means that most patients have few if any side effects from the treatment. In fact, the most common side effect is some slight soreness at the injection site.

FAQs about Orthobiologic Treatments

Am I a candidate for orthobiologics?

EmergeOrtho—Triangle Region's physicians and surgeons are committed to practicing advanced approaches in evidence-based medicine—including orthobiologics. The only way to determine whether you are a candidate for treatment is to schedule an appointment with a provider to evaluate your condition.

That said, orthobiologics are most often recommended for those who have not responded to conservative treatments, including bracing, rest, physical therapy, and cortisone injections, and want to delay surgery. Cell-based therapy may also be included as part of a post-surgical recovery plan to help speed healing.

Are orthobiologics safe?

Adverse reactions to cell-based therapies are rare, and the majority of clinical studies indicate positive outcomes with limited side effects. Because the blood and cells used for treatment are drawn from your body, potential complications are mostly limited to bleeding or infection at the injection site and nerve damage. Your provider will discuss

all of the potential risks before administering treatment.

How long does the treatment take?

Orthobiologic treatment plans vary by patient. Some patients see noticeable improvement after a single injection, while others require multiple treatments to spur healing. Expect a follow-up visit two weeks after the first injection to evaluate your progress, and determine whether additional injections are necessary.

What is recovery like?

Orthobiologic treatment plans vary by patient. Some patients see noticeable improvement after a single injection, while others require multiple treatments to spur healing. Expect a follow-up visit two weeks after the first injection to evaluate your progress, and determine whether additional injections are necessary.

Is PRP covered by insurance?

Patients are encouraged to check with their health insurance carriers to determine whether PRP and other cell-based therapies are covered. Although multiple [clinical studies](#) have proven their safety and effectiveness, many insurance companies continue to deem orthobiologics as “experimental” or “investigational” and will not cover the costs.

Are there any drawbacks to regenerative medicine

Although regenerative medicine has helped many patients delay or avoid surgery, receiving the treatment does not guarantee that you will not need more aggressive interventions. The treatments cannot reverse arthritis or support the regrowth of cartilage, either.

Explore Orthobiologic Treatments at EmergeOrtho— Triangle Region

Regenerative medicine provides patients with minimally invasive options that can often help promote rapid and effective healing from many orthopedic and sports-related injuries and conditions. [Self-schedule an appointment](#) to learn more about orthobiologics and how they may benefit you. You can also call EmergeOrtho—Triangle Region at (919) 220-5255 with any questions.



Triangle Region

800.359.3053