

REGENERATIVE MEDICINE

and

Orthobiologic Treatment:

The Body's Own Ability to
Rebuild and Heal



 **Cooper**
University Health Care

Bone & Joint Institute

What Is Regenerative Medicine?

Regenerative Medicine is the latest technology used to treat injuries and pain. It is the practice of repairing or "regenerating" human cells, tissues, or organs after an injury or after wear and tear from old age. Regenerative medicine uses therapeutics to stimulate the body's own healing properties.

What Is Orthobiologics?

Orthobiologic therapies are a specific type of regenerative treatment. It uses biomaterial and cell based therapies to engage the body in repairing its own bone and cartilage. Orthobiologic therapies can limit and eliminate the need for a hospital stay and accelerate the healing process. This process improves chances for regaining full joint functionality and greatly reduces the risk for osteoarthritis later in life.

How Does It Work?

Samples of a person's own tissues are collected and concentrated to produce a solution that is injected into them.

This solution contains cells that "call" other cells together at site of injury and also many proteins and molecules that alleviate the inflammation process and pain symptoms.

Regenerative Medicine And Orthobiologic Treatments

Non-surgical: Platelet-rich plasma (leukocyte poor and leukocyte-rich), hyaluronic acid, and prolotherapy.

Surgical: Osteochondral auto graft and allograft transplantation, bone marrow stimulation with augmentation, bone marrow aspiration concentration and autologous chondrocyte transplantation, mosaicplasty, micro fracture surgery, subchondroplasty, meniscal transplantation, osteotomy, minimally invasive arthroscopic techniques.



THE COOPER REGENERATIVE MEDICINE AND ORTHOBIOLOGICS PROGRAM

At Cooper University Health Care, the region's leading academic health system, our team of fellowship-trained surgical and non-surgical orthopaedic specialists use the latest technology to treat injuries and pain. We use proven and evidence-based regenerative medicine techniques to stimulate the body's own ability to rebuild and heal injured muscles, tendons, ligaments, bone, and cartilage.

Why Choose Cooper For Regenerative Orthopaedic Care?

EXPERTISE: The Cooper Bone and Joint Institute is the largest academic musculoskeletal institute in South Jersey, with specialists who are fellowship-trained and board-certified. We attend national conferences and participate in discussions among our peers to ensure our patients get the safest and latest treatment options available to target damaged tissue, without harming the surrounding areas.

FORWARD-THINKING TREATMENT APPROACH: Cooper's team offers the latest in non-surgical and surgical treatment options to tap into the body's natural ability to heal a variety of orthopaedic injuries and conditions.

TEAM APPROACH: Our musculoskeletal specialists can treat a wide range of injuries and conditions. We work together to develop a personalized surgical or non-surgical treatment plan that ensures great results and gets you back to the activities you love as quickly and safely as possible.



Platelet Rich Plasma Therapy

WHAT IS PRP? PRP stands for Platelet- Rich Plasma. Platelets are specialized cells that circulate through the blood as a source of growth factors and cellular signaling factors that are required to promote healing and decrease pain. Instead of blocking inflammation and impairing healing as most steroids and anti-inflammatories do, the goal of PRP therapy is to restart the healing process.

HOW IS PRP THERAPY ADMINISTERED? PRP injections are performed in the office during one visit. Certified phlebotomists take a sample of blood in our laboratory. The blood is placed in a centrifuge, which is a tool that separates blood into many components. The portion of concentrated platelets is then injected into the site of injury under ultrasound guidance.

WHAT ARE THE BENEFITS OF PRP THERAPY? PRP is a natural treatment that uses the patient's own blood to stimulate healing for chronic injuries or areas of pain. Most people notice up to 50% improvement in pain at 4 to 6 weeks and 85% to 100% pain relief in three months. PRP can help to avoid the need for surgery.

WHAT HAPPENS AFTER PRP THERAPY? Usually, patients must avoid strenuous exercise at the site of injection for a short time. Then, a physical therapy or rehabilitation exercise program is stated to strengthen the muscle around the injury. Patients normally return to normal activity at 4 weeks.

DOES THIS TREATMENT HAVE SIDE EFFECTS? Because the patients' blood is used, there are no transmitted blood infections. After the injection, soreness commonly occurs and can last a few days. It is safe to use Tylenol after and we will prescribe other medications if needed.

IS THIS TREATMENT COVERED BY INSURANCE?

Unfortunately, at this time, insurance does not cover the procedure but you are welcome to submit the receipt to your insurance plan. The treatment covers the blood draw by our trained phlebotomists, the PRP kit, the centrifugation procedure, and the subsequent injections performed under ultrasound guidance.

Conditions Treated With Regenerative Medicine

- Osteoarthritis
- Muscle and Tendon Injuries
- Ligament and meniscal injuries
- Bone/cartilage defects
- Sports Injuries

Is Regenerative Medicine Right For You?

- Especially effective for professional athletes and those who need to get back to action as quickly as possible with a shortened healing process.
- For the middle-aged "weekend warrior" looking to continue their engagement in athletic activities without the usual age wear and tear or pain.
- For older patients, some are forced to live with pain and limited mobility if surgery was deemed too risky.
- Today, orthobiologic surgery can increase quality of life for these patients who are not eligible for replacement surgeries.
- Orthobiologics can fill the gap between people who need knee surgery and have bad arthritis and then those who need knee surgery but are not necessarily candidates for knee replacements.



Sports Medicine At Cooper University Health Care

Athletes count on the Cooper Bone and Joint Institute for a reason: we get them back in the game. Our sports medicine experts treat athletes at all ability levels, from professional to recreational, using the most advanced care in South Jersey. We use skilled, hands-on evaluation and diagnostic testing to determine the best care plan for you. At Cooper, you don't have to be an elite athlete to get elite care.



Why Choose Cooper For Sports Medicine?

Patients choose Cooper for Sports Medicine services because of our:

- **EXPERTISE:** Our sports medicine and rehabilitation specialists are experienced in treating patients of all ages with a variety of injuries. Our doctors are board-certified, which means they receive extra training to effectively diagnose and treat a wide range of common and complex sports injuries.
- **ADVANCED REHABILITATION OPTIONS:** Proper rehabilitation is essential for a swift recovery from injury. At Cooper's sports medicine and rehabilitation centers, patients have access to advanced rehabilitation equipment and the latest techniques.
- **FOCUS ON INJURY PREVENTION:** We are passionate about helping our patient's transition from rehabilitation to peak athletic performance, and it's our goal to keep you injury-free moving forward. With that in mind, we focus on educating you to help avoid re-injury.
- **TEAM APPROACH:** At Cooper, our sports medicine program brings together a team of experts to keep patients in the game. Orthopaedic surgeons, sports medicine physicians, physical therapists, and athletic trainers collaborate to ensure you receive the highest level of care.
- **COMMUNITY EDUCATION:** We are dedicated to keeping the athletic community healthy and active. Through our partnership with local colleges, school districts, and professional sports teams, our clinical team educates local athletes, coaches, and parents about injury prevention. We have helped thousands of athletes understand how to care for their bodies before, during, and after sports activity.

MEET THE TEAM



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Committed. Compassionate. Complete.



For more than 130 years, Cooper University Hospital has been a valuable and highly respected South Jersey institution. We've built a reputation as one of the most trusted health systems in the region with nearly two million patient visits annually.

 **Cooper**
University Health Care

For more information, a list of our locations, or to schedule an appointment, [CLICK HERE](#) or call **800.8.COOPER** (800.826.6737).

As an academic health system, Cooper offers patients quality health care, from primary care to specialty care, in one or more of its premier Institutes and Centers of Excellence, including:

- MD Anderson Cancer Center at Cooper
- Children's Regional Hospital at Cooper
- Adult Health Institute
- Bone and Joint Institute
- Digestive Health Institute
- Heart Institute
- Neurological Institute
- Surgical Specialties Institute
- Women's and Children's Institute
- Center for Urgent and Emergent Services
- Center for Trauma Services

Cooper is putting Your Health First with rigorous cleaning and disinfecting at all of our facilities, providing space to maintain physical distance, and requiring masks to be worn by staff and patients. It's safe to come into our offices and hospital.

