



OrthoAdvice

Innovative Technique Uses Biologics to Improve ACL Repair

By Paul R. Fleissner, Jr., MD

Injuries to the anterior cruciate ligament (ACL) occur when the knee is hyperextended, twisted or bent side-to-side. In most cases, such an injury is often associated with athletes. But it can occur as a result of a sudden and severe accident or from less obvious contact injuries. Without proper treatment, an ACL injury can develop into a chronic condition, which can lead to an unstable knee, pain and swelling.

Over the last several years, there have been a number of medical advances in ACL reconstruction and repair. Much of the focus has been on improved surgical implants and techniques, but these have not always met with long-term success. Some patients do not achieve good bony ingrowth or revascularization of the ligament. Others develop early osteo-arthritis.

To address these concerns, I have developed the FlashFix™ technique, which relies on biologics to improve the outcome. Thanks to this new, cutting-edge ACL repair and reconstructive technique, we're seeing greater success. Our research and results from our patients have proven that biologics significantly improve the healing process.

Biologics include a wide range of products such as vaccines, blood and blood components, gene therapy and tissues that are synthesized from living organisms or their products. They are then used as preventive or therapeutic agents.

The FlashFix™ technique uses a collagen-platelet-rich-plasma composite (CPC). The composite serves many functions including aiding the adhesion of tendons and ligaments to bone. The collagen of the CPC protects a clot from being deteriorated by specific enzymes in the knee joint, and this protection promotes soft tissue healing. Platelet-rich-plasma (PRP), prepared by centrifugation of the patient's blood in the operating room, is composed of high concentrations of platelets and growth factors. They are known to enhance the healing of bone and soft tissues including tendons, menisci, and ligaments, as well as to promote blood vessel ingrowth at the injured area, which is a critical biological response for the healing process. These mechanisms are documented in numerous published studies, which conclude that PRP turns on the body's biological healing response that occurs after a musculoskeletal injury. With the FlashFix™ technique, patients experience improved outcomes including a dramatic reduction in recovery time while also reducing the re-tear rate after ACL reconstruction surgery.

Fortunately, for those of us living in Northeast Ohio, the Crystal Clinic Orthopaedic Center is one of the few places in the country offering this procedure.



Paul R. Fleissner, Jr., MD, is a board-certified pediatric orthopedist who specializes in pediatric and adolescent sports medicine, with an interest in sports injuries and fractures. He is a graduate of Marquette University and The Ohio State University College of Medicine.

Dr. Fleissner belongs to a number of national, state and local medical associations and is a clinical professor of orthopaedic surgery at Northeast Ohio Medical University (NEOMED). He practices at the Crystal Clinic Orthopaedic Center locations in Montrose, Green and Medina.



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Awarded The Joint Commission's Gold Seal for our commitment to continual improvement for knee, hip, shoulder replacement and spinal fusion, we are the only hospital in Ohio certified in all four orthopaedic areas.



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