

***ORTHOPAEDIC SPECIALISTS OF MASSACHUSETTS (OSM)
REGENERATIVE MEDICINE PROGRAM***

INTRODUCTION

- At Orthopaedic Specialists of Massachusetts (OSM) we strive to offer the latest techniques in non-surgical regenerative medicine treatments. Regenerative medicine refers to treatments that help stimulate the body to heal itself through introduction of growth factors and cytokines. There are a variety of techniques and types of injections that have been shown by clinical research to improve symptoms and quality of life. Conditions treated include arthritis, tendonitis as well as some tendon and ligament injuries.
- Currently at Orthopaedic Specialists of Massachusetts we offer a variety of injection therapies including platelet rich plasma (PRP), human amniotic membrane allograft (AmnioFix), as well as Viscosupplementation (lubricant).

ULTRASOUND GUIDANCE

- As part of performing these treatments at OSM, we feel it is important to use the latest imaging technology including ultrasound guidance for performance of these specialized injections. Numerous studies have shown that utilization of ultrasound allows for the more accurate placement of injections into specific anatomic areas.

PLATELET RICH PLASMA (PRP)

- Platelet Rich Plasma injection is an ultrasound guided procedure where a test tube of blood is drawn usually from the patient's arm. This is then spun in a specially designed centrifuge to create a fluid for injection that is "rich" with platelets and multiple growth factors.

AmnioFix (HUMAN AMNIOTIC MEMBRANE ALLOGRAFT)

- AmnioFix is processed and sterilized amniotic membrane allograft tissue. This is formulated into a fluid which can be injected into anatomic areas under ultrasound guidance to help modulate inflammation and increase healing. This has been utilized in conditions such as knee arthritis and tendonitis.

VISCOSUPPLEMENTATION

- Viscosupplementation is a formulation of hyaluronic acid that is injected into the knee to create cushioning and lubrication, as well as a possible anti-inflammatory response within the knee. Studies have shown that it can be effective to diminish symptoms of knee arthritis.

QUESTIONS: PLEASE FEEL FREE TO ASK YOUR CLINICIAN IF ANY OF THESE TREATMENTS MAY BE RIGHT FOR YOU. SOME TREATMENTS MAY BE COVERED BY INSURANCE, BUT OTHER TREATMENTS SUCH AS PRP AND AMNIOFIX ARE CURRENTLY NOT COVERED BY MOST INSURANCE CARRIERS.

If you have any questions regarding details of procedure or cost, please contact Orthopaedic Specialist of Massachusetts (Lisa Doody, OSM Regenerative Medicine Program Coordinator (781) 769-6720)

PLATELET RICH PLASMA (PRP) **Ultrasound Guided Injection**

FREQUENTLY ASKED QUESTIONS

WHAT IS PLATELET RICH PLASMA (PRP)?

Platelet-rich plasma (PRP) is blood plasma that has been enriched with platelets. As a concentrated source of autologous platelets, PRP contains (and releases through degranulation) several different growth factors and other cytokines that stimulate healing of bone and soft tissue.

Platelets are a specialized type of blood cell involved in injury healing. Platelets also contain large reservoirs of natural growth factors that are essential for the cell recruitment and multiplication involved in wound healing. PRP is made in the office using commercially available machines that take 15-20 minutes to concentrate the platelets after blood is drawn from patient. The PRP is subsequently injected into the appropriate site using ultrasound guidance.

WHAT GROWTH FACTORS AND CYTOKINES ARE IN PRP?

Some of the growth and healing factors found in PRP include:

- Platelet derived growth factor (PDGF)
- Fibroblast growth factor (FGF)
- Vascular endothelial growth factor (VEGF)
- Interleukin 8 (IL-8)
- Transforming growth factor beta (TGF-b)
- Insulin like growth factor 1,2 (IGF-1,2)
- Epidermal growth factor (EGF)

WHAT ARE THE CLINICAL INDICATIONS FOR USING PRP?

PRP is being studied and used for many medical conditions.

Arthritis

- Hip osteoarthritis
- Knee osteoarthritis
- Ankle osteoarthritis
- Shoulder osteoarthritis
- Elbow osteoarthritis
- Wrist osteoarthritis
- Symptomatic articular cartilage injury



WHAT ARE THE CLINICAL INDICATIONS FOR USING PRP (CON'T)

Tendonitis (Chronic tendonitis or partial-thickness tears)

- Rotator cuff
- Biceps
- Golfers/Tennis elbow
- Tendonitis around the thigh (Gluteus medius, hamstring, piriformis syndrome)
- Patellar or quadriceps tendonitis
- Tendonitis around the ankle (Peroneal, Tibialis posterior)
- Achilles
- Plantar fasciitis

Ligament Injury

- Ulnar collateral ligament injury of the elbow
- Medial collateral ligament injury of the knee

Fracture Care

- Delayed union or nonunion fractures

WHAT IS THE BENEFIT OF ULTRASOUND?

Multiple studies have shown that injections can be more accurately placed using ultrasound guidance. At OSM we feel strongly that patients receive added benefit from use of this technology.

WHAT HAPPENS AFTER THE PRP INJECTION IN THE OFFICE?

Patients should avoid sports and maintain a lower level of activity if possible for three or four weeks. Patients should avoid NSAIDS/Anti-inflammatory medication (i.e. Motrin, Advil, Aleve) for one week prior to the procedure and two weeks after the procedure. This is necessary because these medications block the inflammatory response necessary for the procedure to help with healing. Aspirin should likewise be avoided before and after the injection unless taken for a heart condition. Patients can use Tylenol or other pain medications that don't block the inflammatory process. Patients are evaluated about six weeks after the procedure to monitor their progress and response to the treatment.

WHAT IS THE COST FOR PRP THERAPY?

In the United States most insurance plans and Medicare/Medicaid do not currently cover PRP therapy. Patients interested in having PRP therapy are responsible for the full payment for the procedure. If you have questions regarding details of procedure or cost, please contact Orthopaedic Specialists of Massachusetts (Lisa Doody, OSM Regenerative Medicine Program Coordinator (781)769-6720)