



MICHAEL A. CASTILLO, MD

Next Generation Treatment for Pain

Platelet Rich Plasma

New Innovative Treatment
for Healing Chronic Pain

A grayscale, high-magnification microscopic image of several red blood cells. The cells are biconcave discs, appearing as rounded, slightly flattened spheres with a darker center. They are scattered across the frame, with some in sharp focus and others blurred in the background.

Platelet Rich Plasma Therapy

What is Platelet Rich Plasma (PRP)?

Plasma is the liquid portion of your blood and is primarily composed of water, but it also includes proteins, nutrients, and other elements that it can distribute throughout the body. PRP is a sample of the patient's own plasma that is concentrated with platelets (for clotting) and white blood cells (for fighting infection).

PRP is obtained by drawing a small sample of blood from the patient and separating the red blood cells and plasma. This technology yields a high concentration of platelets and white blood cells that is 5-7 times greater than normal. The separation is done by spinning the blood sample in a centrifuge to separate the elements before the injection.

What is Platelet Rich Plasma Injection Therapy?

PRP Therapy utilizes your body's own bio-active proteins, also known as growth factors, to replace, repair, and regenerate tissue. PRP is used to deliver the growth factors directly to the site of pain.

When tissue injuries occur, platelets collect at the site of the injury and begin the clotting cycle. These activated platelets release numerous growth factors that are directly responsible for tissue regeneration. So by increasing the concentration of platelets, we can deliver a powerful mixture of growth factors directly to the injured tissue and dramatically enhance the body's natural healing process. This treatment may result in a more rapid, efficient, and thorough restoration of the tissue to a healthy state.

What conditions does PRP treat?

PRP has been used for over 20 years in numerous medical fields to enhance bone grafting, accelerate wound healing, and reduce the risk of infection after surgery. In recent years, physicians have begun PRP injections to treat chronic pain. Tennis elbow, plantar fasciitis, Achilles tendinitis, rotator cuff tears, meniscal tears. Osteoarthritis, and chronic back and neck pain are all being successfully treated with PRP injections.

What is the PRP procedure?

Musculoskeletal Ultrasound is used to properly identify the injury area. A local anesthetic will be applied to the area followed by the PRP injection with ultrasound guidance, to ensure the appropriate target is reached.

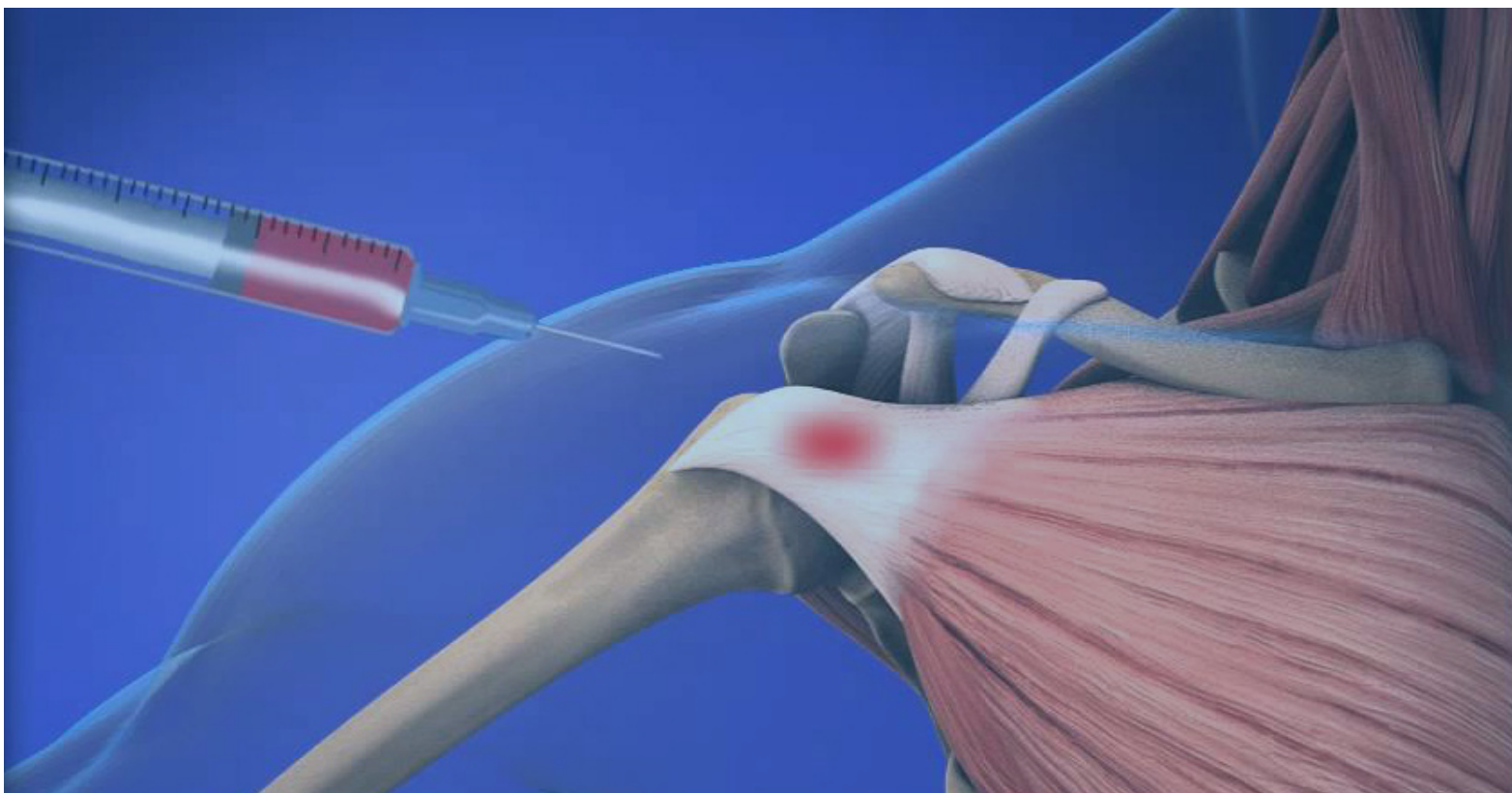
What can I expect following the injection?

Following the PRP injection, an achy soreness is often felt at the injury site. This soreness is a positive sign that a healing response has begun. This effect can last for several days and gradually decreases as healing and tissue repair occurs. It is important that anti-inflammatory medications such as Ibuprofen, Naproxen, and Aspirin be avoided following PRP treatments. These medications may block the intended effects of the healing process. Tylenol can be taken, and apply ice and elevation as needed. The patients will be permitted to resume normal day to day activities and light exercise following the injection. We suggest avoiding strenuous lifting or high-level exercise for at least several days after PRP treatment.

A PRP treatment is not a quick fix and is designed to promote long-term healing of the injured tissue. The regeneration of collagen takes 4-6 months and may require multiple injections. For most cases, 1-3 injections are required at 4-6 week intervals. Pain and functional recovery will be assessed 2-3 weeks after PRP to determine further therapy needs.

What are the risks involved?

Clinical research shows PRP injections are safe, with minimal risk for any adverse reaction or complication. Because PRP is produced from your own blood, there is no concern for rejection or disease transmission. There is a small risk of infection from any injection into the body, but this is rare. Research suggests PRP has an anti-bacterial property, which protects against infection.



PRP is a Nonsurgical Solutions for

Sports Injuries • Back & Neck Pain • Herniated Discs
• Joint Pain • Arthritis

• Nerve Injuries • Industrial/Work Injuries
• Carpal Tunnel Syndrome

Acute Injuries • Muscle & Ligament Sprains & Strains





Alternative to Surgery

When you're in pain, life comes to a standstill. Even the simplest everyday task can feel impossible. We want to get you past the pain and back to your life.

Dr. Castillo is on the forefront of regenerative medicine with a new and innovative form of nonsurgical treatment known as Platelet Rich Plasma Therapy, or PRP.

PRP stimulates the body's natural healing abilities, enabling most patients to avoid more invasive procedures such as surgery. Providing you with an alternative to long term medication programs such as anti-inflammatories, steroid injections, and epidurals.

Medical research and studies are leading the way to the impressive benefits offered by PRP for sports injuries, joint pain, arthritis, acute injuries, disc degeneration, and more.

Enhance your body's ability to naturally heal itself with Platelet Rich Plasma Therapy.

Platelet Rich Plasma Therapy Benefits



- PRP enhances your body's healing potential
- Prepared from your own blood, PRP has no risk of rejection, infection, or disease transmission
- Patients see tremendous improvement in symptoms and return of movement
- Results are proving PRP to be an effective and natural alternative to surgery
- PRP may eliminate the need for more aggressive treatments such long-term medication or surgery

Pre-Procedure Instructions for PRP Injections

Date of Procedure: _____

Patient Information

Patient Name: _____ DOB: _____

Procedure: _____

PRP/ PRF Instructions

Activity: ☐ Rest and relax for the remainder of the day.

Do Not Drive or Operate Machinery: Medications you may have received today can affect your reflexes and muscle control.

Diet: ☐ Resume your regular diet today

Do not drink alcoholic beverages for the next 24hours

Medications: ☐ Continue taking all your medication unless otherwise instructed as noted below.

Comfort: ☐ Ice pack for maximum of 10minutes on and off as needed for the next 24 hours
Do not apply ice directly to skin

Changes: ☐ Call Office **602-242-9891** to report any of the following symptoms or if you have concerns
☐ Unusual swelling, redness, bleeding or drainage for or around the injection site
☐ Temperature of 101 or greater
☐ Increased in the severity of your pain
☐ Shortness of breath or difficulty breathing or any life threatening problem **Call 911**
Go Directly to the Emergency Room

- ✓ **Aspirin** and all **aspirin containing products** (including Bayer, Ecotrin, Alka Seltzer etc.)
- ✓ **All non NSAIDS** COX-2 non-steroidal anti-inflammatory drug (Advil, Motrin, Ibuprofen, Nuprin, Aleve, Naproxen, Relafen, Voltaren, Lodine, Mobic etc.)
- ✓ **All over the counter vitamin/mineral/supplements**
- ✓ **Do not restart any of the above medications for 4 weeks following the procedure**

Follow Up Appointment: _____ / Arrival Time: _____

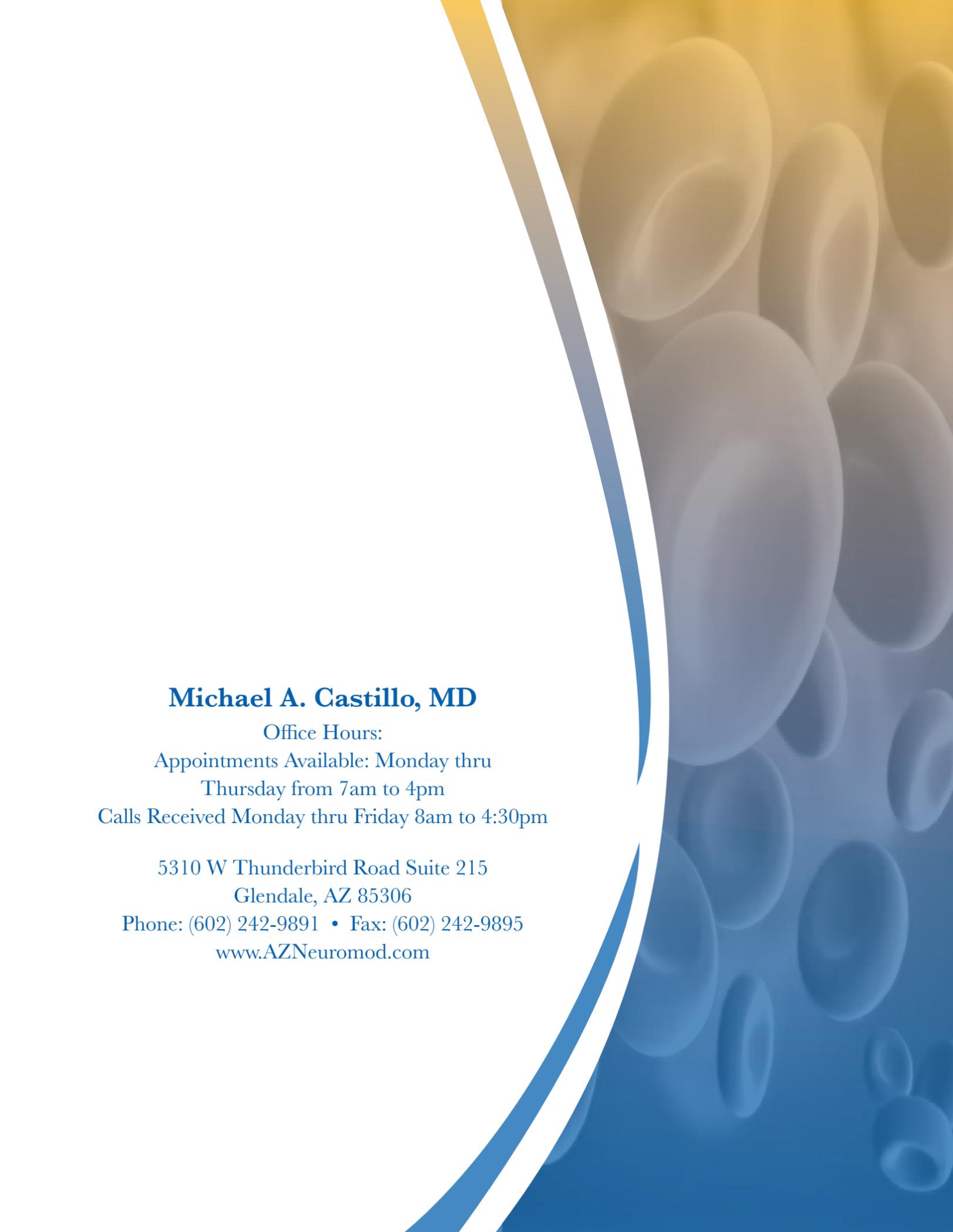
PLAN: _____

Patient Signature

Date

RN Signature

Date



Michael A. Castillo, MD

Office Hours:

Appointments Available: Monday thru
Thursday from 7am to 4pm

Calls Received Monday thru Friday 8am to 4:30pm

5310 W Thunderbird Road Suite 215

Glendale, AZ 85306

Phone: (602) 242-9891 • Fax: (602) 242-9895

www.AZNeuromod.com