



*PATIENT
INFORMATION*

PLATELET RICH PLASMA (PRP) TREATMENT

Sonnenberg

—— Biomedical Health ——

by Dr. Rau





INTRODUCTION

INTRODUCING THE METHOD

Regenerative medicine

Regenerative medicine, an interdisciplinary field that applies engineering and life science principles to promote regeneration, can potentially restore diseased and injured tissues. Since the inception of the field several decades ago, a number of regenerative medicine therapies, including those designed for orthopaedics applications, have received Food and Drug Administration (FDA) approval.

Regenerative medicine has the potential to heal or replace damaged areas by age, disease or trauma. Our goal is to replace many of the more invasive orthopaedic surgical procedures with less invasive, precise injections.

Advanced ultrasound and fluoroscopy guided procedures are offered using the stem cell and platelet mixes, as well as ozone therapy to help our patients return to an improved lifestyle!

Rolandas Janušas, MD

Rolandas Janušas, MD, is a graduate of Heidelberg University Medical School (Ruprecht-Karls-Universität Heidelberg), Germany. He is a trained orthopaedic and spine surgeon, working as a physician and performing orthopaedic procedures since the year 2000.

Over the course of his practice, Rolandas Janušas, MD, has performed over 25 000 various orthopaedic infiltrations using ultrasound imaging and fluoroscopic injections.

From February 2017 till 2022 he was in charge of his Belgian clinic, providing consultations to and treatments for orthopaedic patients from Brussels and from all around the world.

Beginning of 2022 Rolandas Janušas, MD, introduced these therapies in the Sonnenberg Biomedical Health Center, which expanded the range of therapies.





TREATMENT

PLATELET RICH PLASMA (PRP) TREATMENT

Platelet-rich plasma (PRP) therapy uses injections of a high concentration of the patient's platelets to accelerate the healing of injured tendons, ligaments, muscles, and joints.

Using each patient's individual healing system to improve musculoskeletal problems has a stimulating effect on the stem cells within the targeted area, making those cells work harder to heal damaged tissues.

Some of the key advantages of PRP injections are the reduced need for anti-inflammatories or stronger medications like opioids. In addition, the side effects of PRP injections are very limited as they are created from your blood. Your body will not reject or react negatively.

Platelet procedures are commonly used for soft tissue injuries, arthritis, and spine condition.

PRP procedures take about 3h to complete.
The whole procedure will be ultrasound and/or fluoroscopy guided!



PREPARATION

PREPARING YOUR TREATMENT

Preparing for your treatment

You have chosen to restore your body with a regenerative treatment. Scientists have discovered four main characteristics which may influence the successful outcome of your procedure:

- Nutrition
- Vitamins and Supplements
- Medications
- Therapeutic Exercise

Restrictions

- Avoid alcohol for at least 2-4 week prior to the procedure.
- Unless you have been advised otherwise, drink extra water in the days leading to your procedure.
- Please stop smoking 3 months prior to your procedure. Smoking and inhaling second-hand smoke interferes with healing after a regenerative treatment. Don't use Marijuana either.
- Do not donate blood 12 weeks prior and post regenerative treatment.

Nutrition

A patient's body should be triggered for regeneration already before the procedure.

The best way to reduce inflammation and restore immune regulation is a proper diet. The Sonnenberg diet is a nutrient-dense, whole foods diet based on eating a variety of quality vegetables, fruits, nuts and seeds. It improves your health by providing balanced and complete nutrition while avoiding most processed and refined foods and empty calories.

The recommended period prescribed by the doctor is at least 3 weeks before and 6 weeks after the treatment.

For more information on benefits, what to eat - advice and recipes please contact us directly: guest@biomed-sonnenberg.com.

Vitamins and supplements

Common nutritional supplements may be beneficial to both stem cells and cartilage. Reducing the inflammation processes with proper supplements might help to increase the success rate for your regenerative procedure.

We highly recommend to charge up on the following required elements for regeneration:

- Glucosamine sulfate & hydrochloride 1500 mg
- Chondroitin Sulfate 1000 mg
- L-Carnosine 400 mg
- Resveratrol 500 mg
- Vitamin C 1000 mg
- Vitamin D 4000 IU

All of the above listed ingredients can be found as an all-in-one solution in Cellounar's Suplex formula. To find out more about Suplex, contact the Sonnenberg pharmacy directly: apotheker@biomed-sonnenberg.com or +41 71 353 36 90

In addition we also recommend the intake of 2000mg Omega 3 (EPA; DHA) and 1000 mg Curcumin (Bioperine activated). Can be found on www.biomed-int.com Dr. Rau's ASTA- Q3.

It is advised to take the above mentioned supplements for at least 3 weeks before and 6 months after your treatment.



PREPARATION

ADVICE ON MEDICATION AND ALTERNATIVE PAIN MEDICATION

We do not recommend taking anti-inflammatory drugs (NSAIDs) i.e.: Diclofenac, Ibuprofen, Arcoxia, Naproxen, Celebrex, Indocin, Indomethacin, Aspirins, etc., nor steroids or cortisone. All of these drugs have many long term side effects such as gastrointestinal upset, kidney problems, increased cardiac risks. They block the body's natural ability to heal. Steroids have an even longer list of potential complications.

If you are undergoing a procedure at Sonnenberg Biomedical Health Center, you should stop the above mentioned drugs at least 4 weeks prior and 6-8 weeks after your procedures. If you take any prescription medications or have a medical condition you need to discuss any changes with your treating physician first.

Should you be taking any blood thinners such as Plavix or Coumarin, consult with your doctor before switching to alternatives such as Tumeric or fish oil because it may increase the risk of bleeding. Stop fish oil at least 2 weeks before any surgery and at least 3 days before any other procedures/injections. You may continue immediately after your procedure.

Next, please find some alternative options which will not impair your healing mechanisms:

Paracetamol

Take 500 mg 1-2 tabs every 6 hours as needed for pain. No more than 6 tabs or 3000mg (3 grams) in a day.

Curcumin

From the Turmeric spice, has antiinflammatory properties and helps with arthritis and combines many other health benefits. Take 500 -750 mg 2-3 times daily. Take with black pepper or piperperine or in liposomal form to help absorption.

Omega-3

Has anti-inflammatory components and can help with arthritis pain at high doses. Take 3-4 grams of a mix of EPA and DHA per day divided 2-3 time per day. Don't take if it has a rancid odor. Best if taken with mixed isomers of vitamin E or a mixed antioxidant supplement to decrease the risk of oxidation.

Glucosamine

Building block for cartilage. Helps with mild to moderate arthritis. Take combined with chondroitin +/-MSM. Take 1500 mg daily divided in 2-3 doses in a day as it may cause an upset stomach if taken all at once.

Capsaicin Cream

Made from hot peppers and decreases substance P which leads to decreased pain in superficial joints and muscles. Apply a moderate amount of 0.025% or 0.075% cream up to 3 times daily. We recommend using gloves or washing hands very thoroughly after use because of possible skin irritations. Do not touch eyes, nose, mouth, or genitals after use.

Arnica

Homeopathic medication can be taken orally or topically. It helps with acute traumas, bruises, soreness, and arthritis. Take 2x daily for 1 week. If no improvement after 1 week, you may stop.

Vitamin D

Hormone made from exposing your skin to sunlight. Most People are chronically deficient which can contribute to chronic pain. We recommend 2-5,000 IU daily.

Ginger

Has been shown to help treat migraines and menstrual cramps. Take ¼ teaspoon of ground ginger 3x daily at the onset of migraine or cramps.

Cherries

Can reduce incidence of gout flares. Eat 120 g of fresh or frozen cherries daily or a table spoon of cherry juice concentrate 2x daily.

CBD oil

Anti-inflammatory and pain-relieving effects which helps with pain management. CBD gel could potentially help people with arthritis. Please check your country's restrictions before buying any product which contains CBD.

Bromelain

A pineapple extract and a natural anti-inflammatory. As a tablet take 500mg 2-3 times daily. In capsule formulations: 2,000MCU per 1000mg or 1,200 GDU per 1000mg.



PROCEDURE

PROCEDURE STEPS

1. Blood draw from a vein in your arm.
2. The blood is placed into a centrifuge and PRP is separated.
3. The treatment area is cleansed and numbed using a local anaesthetic.
4. Additional Ozone-injection: a small amount of ozone is injected into your damaged area. After around 30 min procedure protocol resumes.
5. Using ultrasound or fluoroscopy, a needle is gently guided to the damaged tissue or joint.
6. The PRP is injected into the damaged tissue or joint.
7. The released platelets and growth factors stimulate and increase the number of reparative cells your body produces.

PRP procedures take about 3h to complete.
The whole procedure will be ultrasound and/or fluoroscopy guided!

Before the procedure

- Take any prescribed medications as usual unless you were told specifically to do something different (no anti-inflammatory medication)
- As previously mentioned, do not take Omega 3 three days before your treatment.
- Don't eat or drink at all if you are having a sedation/general anaesthesia.
- Dress comfortably in clothes that are easy to get on and off
- Wear supportive shoes. Especially if you are having an ankle procedure.
- Stay hydrated.
- Arrange for a driver.
- Book your departure and return flight at least 24 hours after your last injection if you are returning home by flight. For accommodation please contact the Sonnenberg Health Hotel directly. reservation@sonnenberg-schwellbrunn.ch
- Bring your prescribed brace

After the procedure

- Stay hydrated.
- Begin using a far infrared heating pad (see further instructions)
- Do not ice re-injection site
- Follow the medication restriction and advice as mentioned earlier.
- Showers may be taken 24 hours after the procedure
- If you have taken Valium or if you undergone sedation, you must have transportation pre-arranged
- Please check any other medication with Rolandas Janušas, MD, and your prescribing physician for a few months after the regenerative procedure.
- Let the pain guide your activity. Discontinue an activity if the pain is higher than 2/10







POST-PROCEDURE

POST-PROCEDURE INSTRUCTIONS

The cell injection will cause a micro-injury in the tissue. As a result, expect the injected area to be sore. This can last anywhere from 1 to 3 days and can be everything from minimally sore to very sore.

Rolandas Janušas, MD, may prescribe stronger pain medicines that are safe with the procedure. Continue to avoid anti-inflammatories.

If you experience any of the following complications, contact our health care team to learn what you should do next:

- Fever
- Excessive swelling
- Chills
- Pulse at the injection site
- Local hardness
- Redness
- Bleeding
- Increasing pain or pain not relieved by pain medications
- Numbness
- Muscle weakness

Medication

- Do not use anti-inflammatory products for at least 6 weeks after your procedure.
(e.g. *Singular, Advair, Nasonex*)
- Do not take NSAIDs for 8 weeks.
(e.g.: *Aspirin, Ibuprofen, Celebrex, Motrin, Advil, Aleve or Naprosyn*)
- Stay away from any steroids or cortisones for 8 weeks.
(e.g. *Cortisol, Cortisone, Prednisone*)
- Statins must be avoided for 12 weeks.
(e.g. *Altacor, Advicor, Crestor, Caduet, Lescol, Lipex*)
- Recommended to stay away from immune suppressants for 8 weeks.
(e.g.: *Cyclophosphamide, Cyclosporine, Imuran*).
- Blood thinning medication must be avoided at least 6 weeks.

Before intake, please check any other medication with Rolandas Janušas, MD, and your prescribing physician for up to 6 months post your regenerative procedure!

Follow-Up Routine

You will be scheduled for follow-up appointments to ensure your continued improvement post-procedure. During these follow-up evaluations your recovery will be closely monitored to ensure the best possible outcome. These follow-up moments can take place online or in-person.

Rehabilitation protocol

After your procedure you will receive a post-procedure rehab protocol, which provides specific guidance around restricted and permitted activities, therapeutic exercises, and rehab progression.

Vitamins and supplements

Stay on recommended supplements for a 6 months after your treatment. Most important are D3 and C, Curcumin, Glucosamine, Chondroitin, Resveratrol, and Fish Oil.

Nutrition

Keep eating healthy, if possible mostly organic food. Focus is the elimination of alcohol, sugar, dairy, grains and processed foods, such as breads and bakes. Instead choose to eat organic seasonal vegetables, fruit. The advised period to stay on the anti-inflammatory diet by the doctor is 6 weeks after the treatment.

Activity limits

The goal is to allow the stem cells to attach and then to protect them while they differentiate into cartilage. For this reason, you will be asked to keep the joint as still as possible for 30-60 minutes after the procedure. Let the pain guide your activity. Discontinue an activity if the pain is higher than 2/10.

**These guidelines are a general recommendation on how you should progress through your rehabilitation after a PRP procedure. This is not intended to replace your physician's specific recommendations for you as every patient and situation is different.*



FAR INFRARED HEATING PAD

INSTRUCTIONS

You have been instructed to use a FAR Infrared Heat Therapy unit for at home-use after your procedure.

The thermal effect of the deep-penetrating upon tissues may provide relief of minor aches and pains in muscles, joints, tendons, and tissues. This device improves and supports range and freedom of motion due to muscle relaxation and minor pain relief. It also aids in the relaxation of muscles and increases local blood circulation, helping to keep your cells viable after they've been injected.

Instructions for use

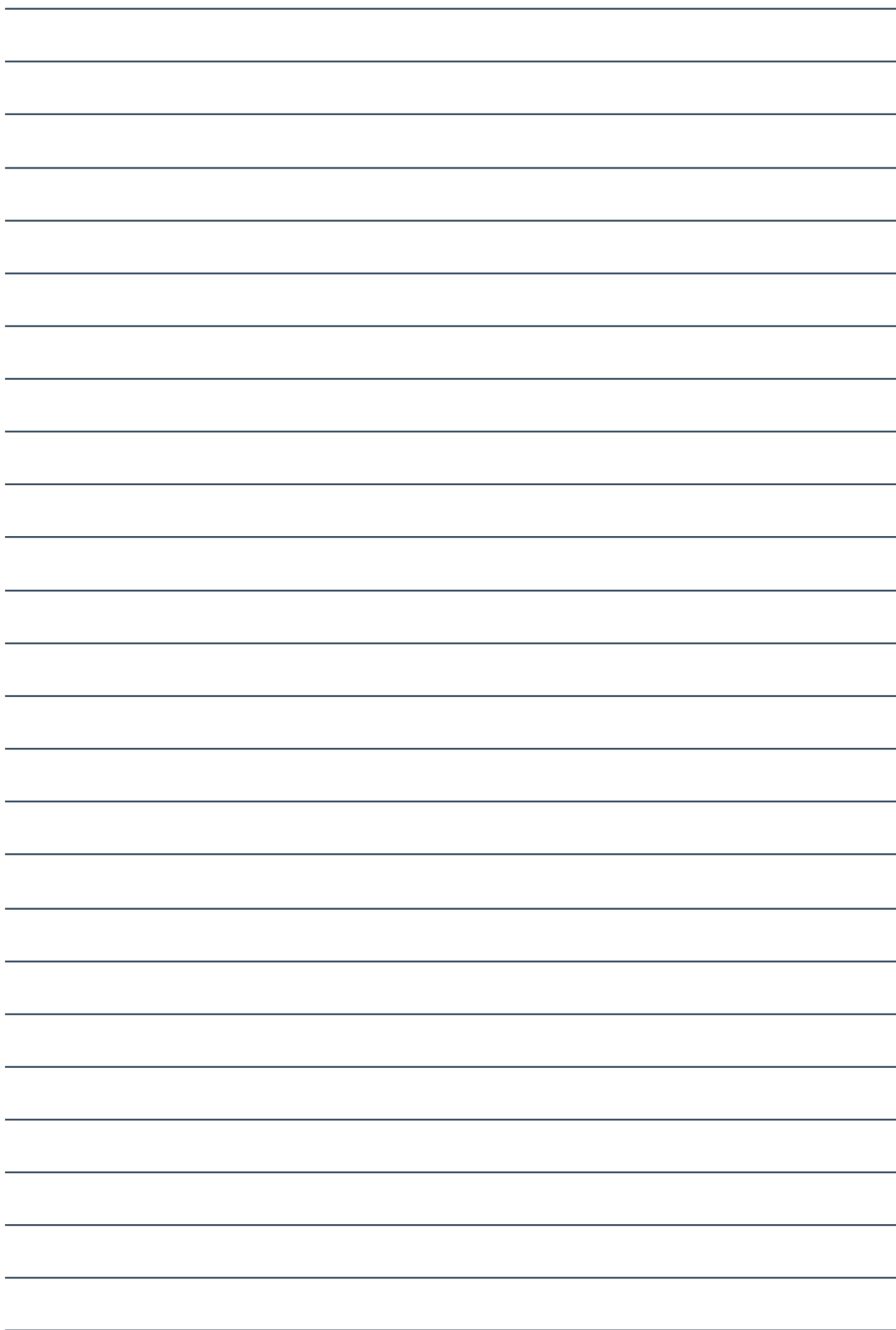
- Place on injection site and start on medium setting – adjust for your comfort level
- Do not use it directly on the skin, first put a towel or cloth
- Use three times daily in 30-minute intervals
- Do not exceed 30 minutes at one time
- Continue using for 6 - 12 weeks post- procedure
- If you notice an increase in swelling, reduce time to 15 minutes once a day.



To purchase a far infrared heating pad, please visit: www.biomed-int.com

NOTES

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