



Regenexx™ Super Concentrated Platelet/Platelet Lysate Joint Treatment Program Guide

Pre-Procedure Information

Please carefully review the medication guidelines printed below.

It is very important that you drink plenty of fluids and are well hydrated beginning 48 hours prior to your procedure. If you come from a lower altitude, it is especially important to drink plenty of fluids (approximately 64 ounces a day).

Please refrain from taking any anti-inflammatories beginning three weeks prior to procedure and 6-8 weeks post procedure, as they will block the body's natural ability to heal. A list of anti-inflammatory alternatives can be found below.

Please review information on improving the quality of your stem cells? See:
<http://www.regenexx.com/2012/05/how-can-i-grow-more-stem-cells-top-10-list-of-things-to-do/>

Pre-Procedure Recommendations to Optimize Results

Nutrition

Eat low glycemic index foods, close to a Paleo diet. The mainstay of the diet should be plenty of vegetables and fruits. Moderate amounts of nuts, legumes, whole grains, organic grass-fed meats if not vegetarian. Decrease sweets, conventional meat, wheat, processed foods, fried foods, dairy. No artificial sweeteners. Drink mostly water and teas, decrease sugary beverages. Cut down on alcohol. No more than 1 glass of red wine/day if you drink. No more than two 8 oz. cups of coffee/day.

Read **Nutrition 2.0**: Nutrition 2.0 is a concise guide to eating and living healthy, written by Regenexx™ regenerative medicine doctor, John Pitts. The book gives a basic foundation of information on mostly diet, but also supplements, physical activity, and stress-relief to improve your life. Link: <http://www.regenexx.com/nutrition-2-0-guide-eating-living-achieve-higher-quality-life-now-golden-years/>

Alcohol and Marijuana

Alcohol can have profound negative impacts on stem cell function, so this should be avoided for the 6 weeks before and after your procedure. A glass of red wine or white wine with dinner is not a problem, but more than that could pose a risk to the cells. Cannaboids such as marijuana can also promote bone formation over cartilage (not what we want in this case), so should be avoided.

Supplements

Regenexx™ supplements are available at our clinic or can be ordered by going to this link: <http://www.regenexx.com/regenexx-advanced-stem-cell-support-formula/> you may use promo code: **VSSHIP** for discounted/free shipping offers.



Regenexx Stem Cell Support Formula: We suggest that you take the Regenexx™ Advanced Stem Cell Support Formula supplement during the course of your treatment (approximately 4 weeks or more before your bone marrow draw and at least 4-6 months post-procedure). There is certainly no harm in taking this supplement for a longer period of time. This is a proprietary blend of vitamins, herbs and supplements developed by the Regenexx™ research team that helps support healthy stem cell function and cartilage production.



Regenexx Turmeric Curcumin Complex: Physicians also recommend Regenexx Curcumin in addition to the Advanced Stem Cell Support Formula to control inflammation while undergoing the procedure as it has been found to be as effective as over the counter NSAIDS for relief of osteoarthritis pain. Patients can take 750-1500 mg or 1-2 capsules 2-3 times per day in conjunction with the Advanced Stem Cell Support Formula.



Regenexx Fish Oil: Two capsules provide 1000 mg of EPA and 500 mg of DHA and includes lipase, a fat digestive aid to ensure maximum absorption. Regenexx fish oil products are provided in the triglyceride form (TG) and carry the TruTG seal. Take two capsules 2-3 times daily.

****** Medication Restriction List ******

Certain medications may interfere with your stem cell procedure. Please inform us of all medications, supplements, and hormones you are taking. This is reviewed to ensure that there are no contraindications and to confirm whether you need to adjust or withhold certain medications for a specified period prior to, during, or after your procedure.

Through our research and experience we have found certain medications that can inhibit cell growth or have a detrimental effect on healing. In an effort to optimize your outcome, please follow the below recommendations.

Stop taking all medications and supplements that can be stopped.

Do not stop any prescribed drug without speaking to a physician.

- Some medications may not be safe to abruptly discontinue, so you must check with your Regenexx doctor, who may have you contact your prescribing physician as well.
- For the medications listed below, we recommend stopping for at least **2-4 weeks** before and **4-6 weeks** after your procedure.
- Medications/products listed have been shown to be particularly problematic either in our clinical experience, or, are suspected to be, based on what is published in the medical research about their impacts on cells or stem cells and must be stopped.
- For all other medications and supplements stop (if able) at least **3-5 days before** any blood or bone marrow draws, and stay off for **2-5 days after** your procedure as an extra layer of precaution.
- If you take the Regenexx Stem Cell Support Supplement, Regenexx Turmeric/Curcumin Complex, or hormone therapy, you can continue taking these.

1. Steroid drugs

- You should discontinue use of these drugs for at least **6 weeks prior** to your procedures. Note, this is more than two weeks outlined above.
- **This is very important!** Oral steroids (such as prednisone, methylprednisolone, etc.), steroid injections (i.e. for knee or joint arthritis or sciatica such as cortisone, dexamethasone, triamcinolone), topical steroid creams and any other forms, such as eye drops, skin creams, etc. must all be discontinued **for at least 6 weeks**.
- Stop inhaled steroids taken for asthma (Advair, Beclomethasone, Budesonide, Flovent, Fluticasone, Mometasone, Nasonex, Pulmicort, QVAR, etc...) for at least **2 weeks before** and **2 weeks after** your procedure.

2. NSAID (Non-steroidal anti-inflammatory) drugs

- **This is very important!** Anti-inflammatory medications such as: Aleve, Aspirin, Bayer, Cataflam, Cox-2 inhibitors (Celebrex, Voltaren, Feldene, Piroxicam) and Indomethacin,

Ibuprofen, Motrin, Naprosyn or Naproxen **must be stopped**. Asthma medications such as Montelukast, Singulair, etc. must also be stopped.

- If you think you will have intolerable pain with stopping these drugs, then please let us know.
- The physician may have other pain medication alternatives that can be prescribed. • We encourage you to read and utilize the “Anti-inflammatory Alternatives” in the next section.

3. Statin cholesterol lowering drugs

- Including Advicor, Altacor, Atarvastatin, Caduet, Crestor, Lescol, Lipex, Lipitor, Lipostat, Livalo, Mevacor, Pitava, Pravachol, Pravastatin, Rosuvastatin, Selektine, Simvastatin, Torvast, Vytorin, Zocor, etc.
- If you have a history of heart disease, you must get approval from your prescribing cardiologist or internist to temporarily stop these drugs.
- Ask your prescribing doctor about ezetimibe (Zetia), high dose fish oil, red yeast rice, or Niacin as temporary alternatives.

4. ACE inhibitor blood pressure drugs

- Accupril, Altace, Enalapril, Lisinopril, Prinivil, etc.
- If you take these medications, consult with your prescribing doctor about switching to a different blood pressure drug such as a diuretic or calcium channel blocker.

5. Beta Blockers

- Atenolol, Carvedilol, Labetalol, Metoprolol, Nadolol, Propranolol, Sotalol, etc.
- If you take these medications, consult with your prescribing doctor about switching to a different blood pressure drug such as diuretic or calcium channel blocker.

6. Angiotensin receptor blockers

- Losartan, Olmesartan, Telmisartan, Valsartan, etc....
- If you take these medications, consult with your prescribing doctor about switching to a different blood pressure drug such as diuretic or calcium channel blocker.

7. Blood Thinners

- Medications such as Apixaban, Coumadin, Eliquis, Rivaroxaban, Warfarin, Xalralto, etc....
- These medications increase the risk of bleeding from your procedure. Stop these per your prescribing doctor’s protocol prior to the procedure.

8. Testosterone Inhibitors

- Dutasteride, Finasteride, Proscar, Propecia, etc.

9. Proton Pump Inhibitors

- Used to reduce gastric acid (examples – Aciphex, Nexium, Prevacid, Prilosec, Protonix)
- The following medications are ok to take as an alternative, but should be discontinued 3 days before any blood or bone marrow draw: Acid, Famotidine, Pepcid, Ranitidine, Tagamet, Tazac, Zantac.

10. Antibiotics

- You should not take the following antibiotics **2-4 weeks** prior to your procedures and should not start these antibiotics until **6-8 weeks** after your treatment: Quinolones such as Ciprofloxacin, Enrofloxacin, Levoquin etc... have been associated with tendon ruptures and nerve injury.
- Gentamycin, Vancomycin, Tobramycin, should also be discontinued as described above.
- The following antibiotics are okay: Tetracyclines, including Azithromycin, Doxycycline and Erythromycin. Amoxicillin, Augmentin, Ceftriaxone, Penicillin and are also okay.

11. Osteoporosis medications

- Bisphosphonates such as alendronate, Fosamax, zoledronic acid, Reclast, Etidronate, Didronel, Risedronate, Atlvia, ibandronate, Boniva, must be stopped at least **4 weeks prior** to procedures.

12. Alcohol

- Avoid alcohol or limit to 1 glass of red wine or less per night, or no more than 2 other alcoholic beverages per week.

13. Artificial Sweeteners

- Avoid products with Aspartame, Acesulfame K, NutraSweet, Saccharin, Splenda, Sucralose, Sweet'N Low. These can be found in many diet sodas and other diet or zero calorie beverages.
- Products with Stevia or Sugar alcohols such as Erythritol, Sorbitol, Xylitol, etc. are ok.

14. Others:

- Avandia (rosiglitazone – anti-diabetic medication) • Pepto-Bismol (contains salicylates)
- Interferon – immune suppressant
- Chemotherapy drugs
- Erythropoetin (EPO)
- Human Chorionic Gonadotropin (HCG)
- Marijuana
- Blood donation: refrain from donating blood for 2 months prior to BMA and for 2 Months after last injection.
- If you have titanium implants where wear and tear on the implant is suspected, please discuss with the doctor!

Exceptions for prescription medications:

- You may continue to take thyroid medication and hormone therapy, but should avoid abrupt changes within 1-2 weeks before or after your procedures.
- **This includes Male or Female Hormone replacement**, including thyroid hormones, estrogen, progesterone, testosterone, and growth hormone like Norditropin.
- This does not include Human Chorionic Gonadotropin (HCG) which should be stopped.

Anti-inflammatory Medication Alternatives

As stated earlier, we generally do not recommend anti-inflammatory medications (NSAIDs): Aleve, Aspirin, Bayer, Cataflam, Cox-2 inhibitors (Celebrex, Voltaren, Feldene, Piroxicam) and Indomethacin, Ibuprofen, Motrin, Naprosyn or Naproxen. We also do not recommend steroids or cortisone.

All of these drugs have many side effects with long term use, including GI upset, kidney problems, increased cardiac risks and they block the body's natural ability to heal. Steroids have an even longer list of potential complications.

As detailed earlier, if you are undergoing a Regenexx procedure you should stop the above for 2-4 weeks prior and 6-8 weeks post procedure. Continue reading for alternatives that do not impair your healing mechanisms.

- **Acetaminophen (Tylenol)** Take 500mg (1-2 tabs) every 6 hours as needed for pain. No more than 6 tabs or 3000mg in a day. If you have a prescription for Tramadol, take an extra strength Tylenol at the same time to potentiate the effects of either drug alone.
- **Curcumin/Turmeric:** Take 1-2 capsules per day of Regenexx Turmeric Curcumin Complex, which is an all-natural Turmeric extract with BioPerine (black pepper). 95% standardized Curcuminoids extract of 750 mg Turmeric, vegetable capsule. Includes BioPerine 5 mg to increase Turmeric absorption by 2000%. Can be taken with the Regenexx Stem Cell Support Formula.
- **Omega 3s:** have anti-inflammatory properties and can help with arthritis pain at high doses. Take 3-4grams 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 risk of oxidation.

The best brands are:

- Regenexx: Concentrated Pro Omega 3 Fish Oil
- Nature's Bounty: Triple Strength Red Krill Oil
- Dual Spectrum Omega 3s
- Meijer Naturals: Omega 3 high EPA Fish Oil or
- Nature Made: Ultra Omega 3 Fish Oil
- Burpless Fish Oil or
- Finest Nutrition: Cod Liver Oil

- Double Strength Fish Oil or
 - Simply Right: Fish Oil or Vlt D-3
 - Wild Alaskan Salmon Oil
 - Sundown Naturals; Plant Based Omega 3
 - Pure Alaska Omega 3: 100% Natural Omega Natural Omega Wild Alaskan Salmon Oil; and Purelife Naturals
- **Glucosamine:** Building block for cartilage. Helps with mild to moderate arthritis. Take combined with chondroitin +/-MSM. Take 1500mg daily divided in 2-3 doses in a day as it may cause stomach upset if taken all at once. This is in the Regenexx Advanced Stem Cell Support Formula.
 - **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, stop.
 - **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.
 - **Capsaicin Cream:** Made from hot peppers and decreases substance P which leads to decreased pain. Helps with 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 the cream can burn. Do not touch eyes, nose, mouth, or genitals after use, as it can cause irritation and burning.
 - **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. This is in our Regenexx Advanced Stem Cell Support Formula as well.
 - **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 ½ cup of fresh or frozen cherries daily Or table spoon of cherry juice concentrate 2x daily.

Allow 1-4 weeks to notice a difference in pain for Bromelain, fish oil, Glucosamine and Turmeric. If you take any prescription medications or have any medical conditions, discuss with your physician before taking any of the above products. **AND** If you take blood thinners such as Plavix or Coumadin ensure that you receive authorization from your physician before commencing supplementation with Turmeric or Fish Oil because it may increase the risk of bleeding. Discontinue fish oil at least 2 weeks before any surgeries and at least 3 days before any other procedures/injections. These may be resumed immediately after a Regenexx procedure.

Post-Procedure Information

General Instructions for All of Our Procedures:

- Our procedures are activity as tolerated unless otherwise specified by your doctor. This means that you should be as active as you feel able. For example, if you're in a lot of pain, then take it easy and stay off the area or avoid activities that would aggravate the area. If you feel good, without pain or symptoms, then slowly test the area with activity. If you still feel good, then you can try more activity. If you have been placed on crutches, in a brace that locks the joint-this may not apply to you. In these rare instances, please ask the staff.
- We generally don't want to suppress inflammation, so stay off of anti-inflammatory drugs (Motrin, Ibuprofen, Aleve, Naprosyn, Celebrex, etc...) and don't use ice. If you want, heat is fine.
- With any injection, always be on the lookout for signs and symptoms of infection. This would include: fevers, chills, sweats, hardness and/or redness in the area injected, pus, or continued pain beyond what would normally be expected from an injection.

Epidurals and Spine Injections

If you had an injection in your back, your legs may be numb or weak for several hours and your bladder may be numbed (i.e. avoid drinking excessive fluids). If you had a neck injection, your arms may be numb or weak for several hours. While longer periods of numbness can occur, they are more rare. You should call your doctor if you have numbness, weakness, or nerve symptoms caused by the shot that lasts more than 24 hours. Please be careful walking, driving, operating machinery, or with other activities that involve the numb areas. **Until these areas are no longer numb, you are at higher risk of falling or injury.**

Prolotherapy and Platelet Injections into Joints and/or Ligaments and/or Tendons and/or Muscles

These injections are supposed to cause an inflammatory reaction before you begin to feel better. You must expect that the area will be from mildly sore to very sore for as little as a few days to as many as a few weeks. If significant soreness lasts longer, please call your doctor.

Nerve Injection (Hydro-dissection)

These injections can cause a temporary increase in nerve type symptoms including numbness, burning, tingling, or weakness. You should contact your doctor if these symptoms persist for more than a few weeks.

Top 5 Things You Should Call Your Doctor About:

1. Fever, chills, sweats, hardness or redness at the injection site.
2. Heart palpitations, sweating, increased heart rate related to the procedure.
3. A marked increase in pain after the procedure than lasts more than a few weeks.
4. Fluid retention, swelling in the face, or severe insomnia due to the injection. If you are diabetic, if steroids were used, you may have to much more closely monitor your blood sugars.
5. Severe headache after an epidural injection. This could indicate a “dural leak” and is usually easily remedied with an injection of your own blood into the area to parch the leak (blood patch).

Thank you for trusting us with your care!