

## **Placental Tissue Matrix Therapy (Allograft)**

The newest addition to our healing arsenal: **Growth Factors**.

Interesting fact: *Did you know that pain and dysfunction of the musculoskeletal system are the second most common presenting complaints to health care providers?* Traditional medical models often do not offer clear-cut options or outcomes for the various types of musculoskeletal pain or sports injuries.

Dr. Nebbeling has been successfully treating difficult musculoskeletal problems for over 30 years. These conditions include but are not limited to:

- \* All sports injuries both new and old
- \* All traumatic injuries from motor vehicle accidents or work related incidents
- \* All levels of osteoarthritis, including bone on bone

The treatments offered at this office include prolotherapy injections, prolozone injections, platelet rich plasma (PRP), Placental Growth Factors, and stem cells. Dr. Nebbeling is always on the cutting edge of medicine, looking for new ways to improve treatment for his patients. In 2017, Dr. Nebbeling's office, Advanced Osteopathic Health, introduced placental derived Growth Factors.

**What are Growth Factors?** Growth Factors are proteins produced by the body which aid in communication and regrowth of tissue. The Growth Factors offered at our office are obtained from placentas that are donated at the time of C-section. Over 20 different growth factors are contained in this product. These Growth Factors, derived from the placental tissue, are labeled as "immune privileged". In other words, they cause no immune response and patients that have received this treatment have had no adverse reactions reported from the injection of placental driven Growth Factors.

The patient's own growth factors have been involved with traditional prolotherapy injections that have been used for over a hundred years by Osteopathic Physicians. The medical definition of platelet rich plasma requires that the solution must contain at least 7 growth factors and the platelets must be concentrated to 4x the baseline number. What is new and exciting is the ability to obtain concentrated amounts of growth factors from healthy, growing, new borns. After obtaining these stem cells, they are administered for the purpose of healing and repair in older, injured adults at an affordable price.

What type of musculoskeletal injuries are Growth Factors used for? They are used for shoulders, knees, hips, ankles, wrists, etc.; all the traditional areas that Prolotherapy or PRP are being used for. What is the recovery time? Depending upon the condition of the patient, reports have shown that typically the Growth Factor injections reduce pain and symptoms in just a few days after treatment. Improvement is commonly noticed by the 3rd day, and after the 10<sup>th</sup> day post-treatment continued to show improvement. These improvements continue over weeks and months showing tendon and ligament Improvement and remodeling.

If you or a loved one are suffering from pain or dysfunction with a difficult musculoskeletal issue, please feel free to call our office to discuss the many treatment options we have available.