



ORTHOBIOLOGICS ASSOCIATES
INTEGRATIVE HEALING



CELLULAR THERAPY AND YOU

Understanding Cellular
Therapy



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Chapter 1

Understanding Cellular Therapy



What is Cellular Therapy

The medical community has convinced us that new, different, and "better" drugs are the answer to our pain. This has proven to not be the case. In fact, the chemicals in those drugs can lead to further destruction within the body and will eventually call for more drugs.



Now, imagine one small injection (of your own cells) and having that procedure free you from pain and chemical drug dependency.

Cellular therapy is a branch of medicine where the healing potential of your own body is harnessed and applied. Stem cells are taken from bone marrow at Orthobiologics Associates and are then relocated to an area of disease, injury or inflammation. Stem cells exist within our body and are responsible for maintaining and repairing tissue when damaged.

However, certain tissues do not have direct access to stem cells. Cellular therapy, therefore, is harvesting stem cells from where they exist in abundance (usually fat or bone marrow) and applying them to an area of need within the body.

Is Cellular Therapy Safe?

Side effects are typically minimal and can include minor pain and irritation at the injection site. Since we are using a patient's own stem

cells, chances of immune system rejection are virtually zero. So yes, cellular therapy is safe!

How Does Cellular Therapy Work?

You can get stem cells from several different types of tissue such as adipose (fat), blood, and bone marrow.

Here at Orthobiologics Associates, we get stem cells from bone marrow because they provide the most growth factors that aid in repairing and regenerating the body. This is done through bone marrow aspiration (BMA).

BMA is a quick and painless process that takes about 1 minute after we find the best place to get the bone marrow from. We give you a local anesthetic to numb the injection area, then pull a small amount of bone marrow out.



1. Obtain Samples

Outpatient mini Lipoaspiration with topical anesthetic



2. Process Samples

Proprietary cell wash to isolate living stem cells



3. Wash & Filter

Wash and filter SVF



4. Combine

Enrich stem cells with PRP and inject into patient



Why Choose Cellular Therapy Over Drug Prescriptions?

By continuously taking prescription pills to mask your symptoms, you are only poisoning your body, rather than solving the underlying issue. Eventually, the prescriptions will fail to help and instead you will be required to try a higher dosage, or even a new regimen of drugs.

This creates a pharmaceutical vicious cycle that repeats over and over again.

We're giving hope to people who have almost given up. We're lifting the jail sentence of pain and pain medication and helping people like you heal from the inside out using your own cells.

Aside from how amazingly effective this therapy can be, our cellular therapy is also:

- **Minimally invasive** (requiring an incision so small that it does not require stitches) so you will not have to endure a difficult recovery period. You will walk out of the treatment with very minimal discomfort.
- **Most often effective with one treatment!**
- May be able to **reduce or eliminate your need for prescription medicine** so you can stop relying so much on medications to manage your life, and you will be able to eliminate those chemicals from your body.
- **Performed all in one day, in just a few hours.** You will get in and out and back to life in much better shape than when you came in. There is minimal downtime!
- **Immune privileged** - since each patient receives his or her own stem cells, and no foreign tissue is introduced, there is no risk for rejection or cross reaction.



Orthobiologics Associates Unique Cellular Therapy Approach

By continuously taking prescription pills to mask your symptoms, you are only poisoning your body, rather than solving the underlying issue. Eventually, the prescriptions will fail to help and instead you will be required to try a higher dosage, or even a new regimen of drugs.

This creates a pharmaceutical vicious cycle that repeats over and over again.

Some clinics are offering injections from placenta tissue or cord blood. Those therapies are promoted as "stem cells" but are not true stem cells.

Placenta tissue or product is "a-cellular" meaning that there are no living cells in the mixture. Samples are lyophilized, snap frozen, or morselized which kills the cells. These products are only growth factors and do not contain living stem cells like the cells that we obtain from bone marrow.

Our process involves taking the patient's bone marrow and processing it to get live potent stem cells. Our process is superior to any cord blood or placenta "cellular therapy" because it actually harvests live and potent stem cells.

We also do not utilize harmful drugs like Neupogen or GCSF (granulocyte stimulating colony factor) to isolate cells from peripheral blood. These drugs are very harsh on the body and using them is an outdated way to obtain stem cells

Aside from how amazingly effective this therapy can be, our cellular therapy is also:



What Conditions Does Cellular Therapy Treat?

If you have suffered an injury, illness, or have lost proper function in one or more of your bodily systems, there is a good chance that our cellular treatment could help you.

Cellular therapy is considered for the following conditions:

- Cartilage damage
- Meniscus tears
- Chronic pain
- Labral tears
- Sports injuries
- Arthritis
- Orthopedic injuries
- Osteoarthritis
- Sprains
- Tendonitis
- Inflammation
- Trigger finger
- Bulging discs
- Degenerative Disc Disease (DDD)
- Bursitis
- And more!



Chapter 2

Cellular Therapy For Chronic Knee Pain



What Is Cellular Therapy For Knee Pain?

Cellular therapy involves the injection of your own healing properties to repair and replace damaged tissue in any joint, including the cartilage in your knees. This is a minimally invasive outpatient procedure that requires little to no recovery time. Your cells are harvested from one area and injected directly into your knee.

PRP (Platelet Rich Plasma) is also used to help promote the healing power of your cells. Patients are typically back to their normal activities quickly, often seeing results within weeks.

The main differences between cellular therapy and traditional medicine is that cellular therapy is designed to heal and regenerate the cause of your pain, like damaged knee cartilage, while traditional medicine focuses on treating your symptoms, not the cause. Our treatment is intended as a single outpatient procedure.

That's the beauty of cellular therapy – there are no expensive medications, medical equipment, therapies, or follow-up visits that are just designed to mask symptoms and allow the condition to get worse. The nature of Functional Medicine practitioners, like Orthobiologics Associates, is to make you well and let you get on with your happy and healthy life instead of just masking symptoms short term and prolonging the inevitable...surgery.



What Knee Conditions Does Cellular Therapy Treat?

Chronic knee pain can be a major inconvenience. It can interfere with your mobility and

reduce the amount of time you can spend standing or walking. If you work on your feet, it can

prevent you from being able to perform all of your job duties.

Chronic knee pain has ended the careers of many professional athletes. Parents and grandparents may opt out of a variety of family activities because of their knee pain. The sources of this chronic knee pain can be different for each patient.

Here are a few of the knee conditions that qualify for cellular therapy:

- Arthritis, such as osteoarthritis (see Chapter 4)
- Cartilage reduction in the knee joint
- ACL or MCL tears
- Meniscal tears
- Other degenerative conditions

When you seek treatment for knee pain, you may be told that there is no cartilage left in the knee joint. The doctor may say that it is "bone on bone." However, this is rarely the case.

Generally, there are still areas of cartilage, which can respond positively to the cellular regeneration offered with cellular therapy. In our facilities, we have helped many patients with "bone on bone" conditions return to normal function and reduced pain

Cellular Therapy vs. Knee Surgery

The most common treatments for knee conditions are arthroscopic knee surgery and total knee replacement. With either of these surgeries, you can spend months dealing with expensive and extensive rehabilitation before your body is able to regain mobility and strength and to feel significant pain reduction. It can be months before you are able to get back to doing what you love in life.

Evidence suggests that some forms of surgery offer no real benefit. There are additional issues associated with knee replacement that, today, is over-prescribed as a solution. Not long ago, knee replacement was considered a last-ditch attempt to help restore the use of the knee. It has now become the most common method for treating chronic and severe knee pain. Some studies suggest as much as 1/3 of knee replacements fail in the first year.

Unfortunately, the use of cellular therapy for chronic knee pain is not yet widely known among the public. Thousands of patients continue to choose meds to mask symptoms and ultimately invasive surgery or knee replacement without realizing there are better-suited, more natural, and safer options available that provide long-term relief and improved quality of life



Risks of Knee Replacements

There are several big cons associated with knee surgery or replacement, such as:

Your risk of heart attack increases after knee replacement

A study found that patients over the age of 60 who underwent a knee replacement surgery were 25.5 times more likely to have a heart attack during the 2 weeks following their surgery. Surgery causes trauma to bone and blood vessels. This trauma increases the risk of blood clots. This, in turn, increases the risk of a heart attack.

Smoking increases your risk of complications during surgery

If you are a smoker, you face an additional set of risks when undergoing knee surgery or replacement. In fact, this can be a deadly situation. Researchers have found that smoking can increase the risk of infection by 53%. Smokers who received these surgeries also faced a 63% greater chance of living less than one year after the surgery and a 61% greater chance of experiencing a stroke

Knee replacement adds metal ions to your blood

Another potential risk associated with knee replacement is the presence of metal ions in your blood. This occurs when small pieces of plastic, metal, or ceramic material break from the knee prosthesis. This irritates your tissue and allows particles, including metal ions, to enter your bloodstream. Unfortunately, we do not fully know the long-term effects of higher levels of metal ions in your blood, but the possibility of having foreign substances in your body should act as a caution sign.

Some patients experience an allergic reaction to the replacement

Before undergoing knee surgery or replacement, it is important to undergo allergy testing. In the past few years, surgeons have noticed an increase in allergic reactions to the metal or other components used during knee replacement surgery. One study found that nearly 2/3 of people who have a knee replacement experience some type of allergic reaction. These allergic reactions can limit your ability to recover from the surgery. More importantly, they can affect your long-term health.

33% of people returned to chronic pain following surgery

A study published in the British Medical Journal in 2017 concluded that the current practice of knee replacement performed in the U.S. on patients with knee osteoarthritis had minimal improvements on quality of life. It also showed that up to 1/3 of recipients of total knee replacement experienced chronic pain postoperatively

Are You A Candidate For Cellular Therapy?

There are many people suffering from debilitating knee pain conditions that suffer for no reason. Cellular therapy can be the solution to your pain, your happiness and your freedom.

The first step is contacting one of our experienced physicians who specialize in regenerative medicine. We will evaluate your condition, perform a complete case review, and determine the best course of action – and at Orthobiologics Associates we do not charge for this service

Chapter 3

Cellular Therapy For Back Pain



What Is Cellular Therapy For Back Pain?

Do you suffer from back pain? Have you discussed your options with your doctor? If surgery has been recommended, then you may want to take a moment to explore other options, such as regenerative medicine through cellular therapy



Conservative medical treatments that are often used for treating back pain include moderate exercise, physical therapy, pain medications and therapeutic injections. And while these treatments may offer relief, they do not always provide a complete solution to your back pain because they only target the symptom. In some cases, some form of invasive surgery may be advised.

Unfortunately, surgery can lead to a variety of complications and risks. This includes the risk of infection, nerve damage, or permanent loss of flexibility. There is also a significantly long recovery process – surgery can put you out of commission for several weeks or months. Couple that with poor long-term outcomes and it's easy to see that all options should be exhausted prior to ever making that decision.

However, cellular therapy provides a minimally invasive alternative to invasive surgical treatment options. Imagine being able to heal your spine as opposed to cutting things out. Cellular therapy has helped thousands across America for a wide variety of orthopedic conditions and disorders. When it comes to a back problem, stem cells hold the power to repair damaged discs or facet joints while restoring function and minimizing pain

How Long Does Cellular Therapy For Back Pain Take?

Each treatment is a single outpatient procedure. Ideally, a treatment is a one-time treatment with no additional care or expense. While some ailments and conditions may require more than one treatment, many do not.

The entire procedure is completed within 2 to 3 hours. Unlike invasive surgery, recovery time is minimal. After a cellular treatment, patients tend to go back to work within 1 or 2 days. It's recommended that you wait 4 to 6 weeks before you participate in activities that require impact, torque, or heavy lifting (such as running, golf or weightlifting). Patients can typically return to low impact exercise (such as walking, elliptical, or biking) within 1 to 2 weeks.

What Back Conditions Does Cellular Therapy Treat?

An ideal cellular therapy candidate for back pain is someone who suffers from a painful disc or facet syndrome from overuse, trauma, or a debilitating condition such as degenerative arthritis. Chronic pain sufferers make up the bulk of patients for cellular therapy, but we are also seeing dramatic improvements in recovery times for acute and sub-acute injuries as well (new injuries).

Let's check the two main conditions in more detail

Degenerative Disc Disease (DDD) & Disc Herniations

Spinal disc degeneration is a common cause of back pain. It primarily impacts the lumbar spine, AKA your lower back. Spinal discs are made up of soft, compressible material that separates each spinal vertebra. You can think of them as shock absorbers, which are needed to allow your spine to flex and bend. You can expect a certain amount of wear and tear to your spinal discs as you age

Arthritis and injury can expedite with wear and tear to your spinal discs. When these discs begin to degenerate, you will often experience a loss of mobility and increased pain. If the condition is not treated, you may eventually develop chronic back pain. This is because these tissues can't easily heal on their own.

Cellular therapy can help restore the health of these discs. The loss of healthy cells inside the disc can be repaired or replaced through stem cell injections

Facet Joint Syndrome

Facet joint syndrome is another common cause of back pain that may be treated with cellular therapy. The pain is the result of facet joints located in your spine becoming inflamed or swollen. The pain can also be caused by the loss of cartilage surrounding your joints.

If you have trouble bending or twisting your back, there is a chance that you may be suffering from facet joint syndrome. As with DDD, facet joint syndrome can be the result of natural wear and tear, disease or injury. Occasionally, it is caused by a combination of these issues, but acute trauma or degenerative arthritis are two of the most likely culprit

Additional Disc or Joint Pain

Along with the conditions we discussed, cellular therapy can be used to treat a number of other conditions that result in disc or joint pain. Stem cells are known to help repair damaged joints, cartilage, and soft tissue in the back.

Chapter 4

Cellular Therapy For Knee Osteoarthritis



What Is Knee Osteoarthritis?

Osteoarthritis is one of the most common afflictions impacting Americans today, and is a condition that is often responsible for chronic knee pain. Symptomatic osteoarthritis occurs in 13% of women and 10% of men over the age of 60 in America.



Due to its weight-bearing nature and location within the body, the knee joint is one of the most common places for this type of osteoarthritis to show up. As the cartilage in the knee joint deteriorates, debilitating pain develops, leading to a cascade of pain medication, cortisone shots, surgeries, and eventually, total joint replacement.

This equates to millions of people nationwide trying to navigate the management of this condition. Contrary to popular belief, aging is only a small factor when it comes to developing osteoarthritis. Things such as gender, obesity, knee injury, and repetitive use of the joint through running or twisting are also key players.

Symptoms include:

- Stiffness and loss of mobility upon waking in the morning
- Loss of joint flexibility
- Decreased range of motion
- Pain that increases after activity
- A buckling sensation in the knee which can even lead to falling
- Sudden sharp pains that can develop into pain that lasts for days after any weight-bearing activity
- Pain that calms down when you rest

Traditional Treatments for Knee Osteoarthritis

Traditional medical approaches to knee osteoarthritis include:

- Hot and cold therapy
- Knee braces
- Over-the-counter pain medication
- Prescription medication for more advanced cases
- Cortisone injections
- Surgical intervention, such as an osteotomy (where a cut is made through the tibia bone to realign the top portion of the bone), cartilage grafting, joint clean out with arthroscopy, and total knee replacement.

The issue with these methods of treatment, as far as we see it, is that they do not work to heal osteoarthritis at the root cause. The invasive nature of these treatments only leads to a cascade of interventions that requires additional treatment over time.

This requires lots of recovery time and is both costly and frustrating. You may be surprised to know that even a total joint replacement can fail when it comes to pain relief. 1 in every 3 people who undergo replacement surgery still report pain long after their post-op period has officially ended.



Why Cortisone Shots Are Bad For You

Many people turn to cortisone shots only to find that the relief for their knee pain caused by osteoarthritis is minimal. The bottom line with cortisone shots is that they offer little – if any – long-term relief of symptoms. This is because as multiple cortisone shots are given over long periods of time, the cortisone actually causes further deterioration to the cartilage that surrounds and lubricates the joint. This is completely contrary to your healing goals

Cellular Therapy for Knee Osteoarthritis

We offer a new minimally invasive cellular therapy that uses cells from your own body to help heal your osteoarthritis. This is a great option as there is a very short recovery time and no risk of tissue rejection.

Here are two forms of regenerative medicine we offer for knee osteoarthritis at Orthobiologics Associates:

Cell Therapy

Cell Therapy often relieves pain within weeks. This is because this type of therapy works with your body's ability to heal itself by delivering your own healing stem cells right to the source of joint pain. This leverages natural regenerative healing with less downtime. Most of our patient's report returning to daily normal activities within 24-48 hours!

We offer a type of treatment called mesenchymal cell therapy, which involves using the cells from your own bone marrow to promote healing for osteoarthritis. These cells eventually develop into skeletal tissue, fat tissue that makes up bone marrow, or cartilage tissue. Mesenchymal cells are excellent in facilitating cartilage regeneration that helps to heal osteoarthritis – saving you from lengthy recovery times and wasting money on multiple therapies that cost hundreds – if not thousands – of dollars.

Conclusion

The best thing about cellular therapy at Orthobiologics Associates is that it works with your body to achieve results that will get you back on your feet living with minimal side effects and downtime.

We are excited to have multiple therapies that will help you find relief from your pain, bringing you non-surgical treatment that's safe, effective, and non-invasive.

Call us at 877-381-4200 to schedule a consultation or visit us online at www.orthobiologicsassociates.com to discuss which therapy is right for you!

