

FACTS, RESEARCH, & CLINICAL USE

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"Stem cells offer the possibility to treat a myriad of diseases, conditions, and disabilities including Parkinson's disease, spinal cord injury, burns, heart disease, diabetes, and arthritis."



National Institutes of Health, U.S. Department of Health and Human Services, 2016

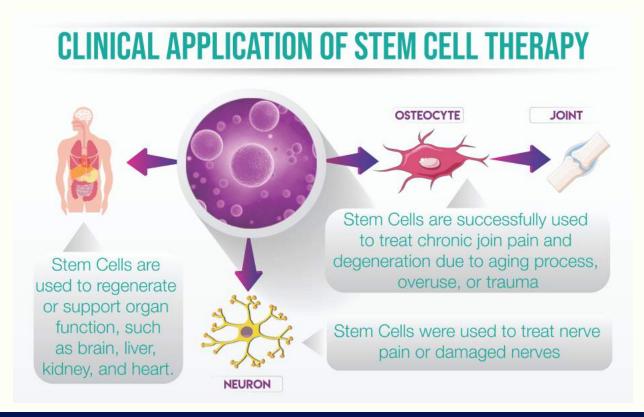






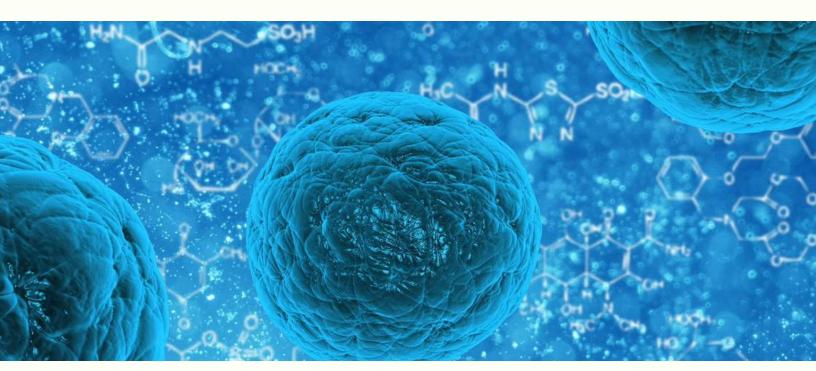
Like many of the patients who come to see us, you might be suffering from knee, back, shoulder, or neck pain. Does this pain slow you down? Does it reduce your ability to enjoy hobbies or time with your loved ones? Most of our patients have been suffering from pain, disability, depression or mood swings, autoimmune conditions, or decline in memory. They are tired of taking drugs and have tried different treatments that did not help. Just like you, our patients wanted to get back to living their lives without pain or disability.

Stem cells are master cells (also called "father" or "mother" cells) that your body uses every day to replace injured or dead cells, such as muscle, meniscus, or nerve cells. According to the U.S. National Institute of Health, as part of regenerative medicine, stem cells have been showing promising results in regenerating joints, nerves, and even organs, such as heart, liver, pancreas, intestine, kidney, and parts of the brain (NIH, Stem Cell Information, published 2016).



### WHERE ARE STEM CELLS COMING FROM AND WHY DO I NEED NEW STEM CELLS?

Stem cells reside everywhere: in our bone marrow, in our fat, and in every single tissue compartment. Your body uses stem cells, like building blocks, to replace cells and repair damage to joints, organs, and even the brain. It is an essential part of our repair system. Unfortunately, as we age, the number of stem cells in our body reduces significantly, which leaves us without the "building blocks" to repair damaged cells in our body. (source: Journal of Stem Cells International, 2011, PMID: 21716667)

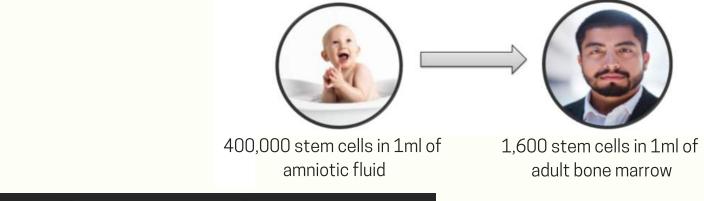


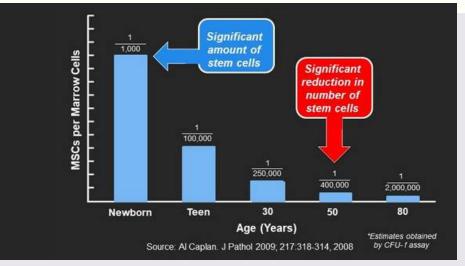
### WHY DO THE NUMBER OF STEM CELLS IN OUR BODY DECREASE OVER TIME?

Studies show that the amount of stem cells in our bodies decrease significantly as we age. When you are born, you can find about 440,000 stem cells in 1ml (one milliliter) of the amniotic fluid, while as an adult, you can only find an average of 1,600 stem cells in 1ml of bone marrow. How will your body regenerate your joints, tissues, nerves, and organs without enough stem cells?

"Age-related dysfunction of stem cells, such as loss of the ability to self-renew, can lead to the depletion of the stem cell pool."

-Manifestations and mechanisms of stem cell aging. The Journal of Cell Biology. 2011





## AS WE AGE, OUR OWN STEM CELLS LOSE THEIR EFFECTIVENESS

A study published in 2017 in the International Journal of Stem Cell Research reported that "there is increasing evidence that the aging process can have adverse effects on stem cells. As stem cells age, their renewal ability deteriorates and their ability to differentiate into the various cell types is altered." In other words, your stem cells lose their ability to repair joints, ligaments, and nerves. Loss of stem cells and their ability to function well might lead you to suffer from chronic inflammation and pain, osteoarthritis, and autoimmune conditions. It might also lead to a decline in function of organs, such as lungs, heart, and kidney, as well as brain conditions (decline in memory, Alzheimer's, and Parkinson's).

## IS STEM CELL THERAPY EFFECTIVE FOR JOINT PAIN AND DEGENERATION?

Many studies on the effect of stem cells have shown that, once they are introduced into your joints, they can lead to a reduction in joint pain, improvement in range of motion, as well as promote the healing and repair process in your joints. A study published in the Journal of Transplantation evaluated the effect of stem cell injection on osteoarthritis patients. These patients had lost or partially lost their meniscus (the cartilage between the two bones in the knee).

The study found that administration of stem cells into the knee exhibited rapid and progressive improvement in the quality of the cartilage in the knee in 11 out of 12 patients, as well as a significant reduction in pain. In other words, their meniscus was regenerated. The study concluded that stem cell procedures are safe and effective in the treatment of osteoarthritis, an inflammatory and degenerative disease of the joint. A two-year follow-up study with the same participants still showed improvement in their meniscus and a reduction in knee pain.

## WHAT HAPPENS AFTER THE STEM CELLS ARE INTRODUCED TO YOUR BODY?

Several studies show that after injection of stem cells, the cells will be stimulated to "differentiate" (turn) into meniscus, ligaments, and other tissues that have been damaged due to age or injury. Due to the anti-inflammatory effect of the amniotic and umbilical cord stem cells, most patients notice relief within a few days. In some patients, depending on the severity of the condition, the regenerative process might take weeks or months.

A five-year follow up (2015) on patients who received stem cells treatment for degeneration of the knee still showed improvement in all parameters: walking time, stair climbing, reduced pain, patella crepitus, and range of motion.

### Rheumatic Diseases

#### Source:

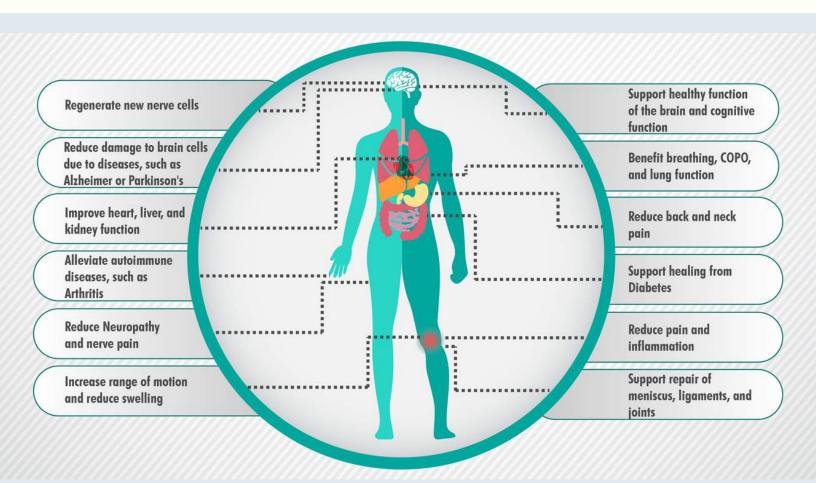
Mesenchymal stem cell therapy for knee osteoarthritis: 5 years follow-up of three patients. International Journal of Rheumatic Diseases. Published 2016



## WHAT CONDITIONS CAN BENEFIT FROM ADVANCED STEM CELLS TREATMENT?

There are many studies on the health benefits of stem cell therapy. Stem cells have been used to support the healing of joints, nerves, and organs, such as heart, liver, and lungs. Since stem cells are considered a biologic and not a drug, the FDA does not consider stem cells as treatment for any specific disease or condition.

In research literature and from our providers' experience, stem cells can be used for the following conditions: Osteoarthritis, chronic inflammation, arthritis, neck pain, knee pain, sports injury, neuropathy, erectile dysfunction, migraines, autoimmune conditions or neuro-degenerative diseases (Alzheimer's, Parkinson's, post-stroke recovery). The chart below describes these benefits.





"Currently, there have been a numerous clinical and experimental studies showing positive results in terms of functional improvement with stem cell treatment in Spinal Cord Injury"

#### Source:

Current Concept of Stem Cell Therapy for Spinal Cord Injury: A Review. Korean Journal of Neurotrauma. Published 2016

#### WHICH TYPE OF STEM CELLS SHOULD I USE?

There are several types of stem cells in clinical use, including stem cells from adipose tissue (fat tissue), bone marrow, and stem cells from amniotic and umbilical cord tissue. The majority of clinics use stem cells that are harvested from your own tissue, such as bone or adipose (fat).

Unfortunately, our own stem cells have been exposed to bacteria, viruses,

Unfortunately, our own stem cells have been exposed to bacteria, viruses, and environmental toxins for years. Furthermore, our own stem cells grow old with us and studies show that they might not be as effective as they used to be when we were younger. Therefore, we recommend using "newer" stem cells from reliable sources, such as amniotic and umbilical cord.

### WHY OUR STEM CELLS ARE SO UNIQUE

- Umbilical cord and amniotic tissue is rich with the basic components
- necessary for tissue and joint healing. These stem cells include
- collagen substrates, the full range of growth factors, amino acids,
- hyaluronic acid, fibroblasts, and epithelial cells.
- Amniotic and umbilical cord stem cells are new and powerful cells.
- They have not yet been exposed to as many toxins as we have, and
- they have not aged.
- Our stem cell products include a variety of cytokines and exosomes.
- Several studies have shown they can promote a healthier and more
- effective recovery. Cytokines are important in cell signaling. They are
- the "architects" or "engineers" that tell stem cells (and other cells)
- how to rebuild a joint, muscle, organ, or nerve. Exosomes are
- extracellular vesicles that reduce inflammation and help with the
- regeneration of organs.
- · Amniotic and umbilical cord stem cells and cytokines have anti-
- inflammatory and anti-bacterial properties.



"Stem cells can grow into brain cells, and as a result, have the potential to repair brain damage caused by neurological conditions, such as dementia."

Source: American Alzheimer Society. Published online, 2015

## WHY DON'T MOST DOCTORS TALK ABOUT STEM CELLS?

Stem cell therapy is not taught in medical schools. Doctors mostly learn about drugs or surgery; therefore, there are a lot of misconceptions about regenerative medicine. Furthermore, there is a lot more money in keeping you on drugs or in performing expensive surgery, rather than actually getting you healthy. Unfortunately, most patients do not know about the risks involved with back or joint surgery, and many patients are left with chronic pain after surgeries that were promoted by their doctor.

### ARE STEM CELLS SAFE TO USE?

- We place safety and effectiveness as our top priorities. We use a form
- of stem cell therapy from amniotic and/or umbilical Cord tissue
- allograft.
- The stem cells we provide have been used in over 100,000 patients
- nationwide with zero serious side effects reported. Rarely, some
- patients will experience fatigue or minor muscle cramping for a few
- hours after the procedure.
- Our stem cells come from a cord bank that is approved by the Food
- and Drug Administration (FDA) and the American Association of
- Tissue Banks (AATB).
- To meet with our strict safety and effectiveness criteria, stem cells
- are donated from healthy mothers under the age of 35, after the birth
- of a healthy baby.
- · Samples are tested and contagious diseases are ruled out according
- to the FDA regulations.
- Stem cells from amniotic and umbilical cord tissues do not contain
- DNA and are shown to be immune privileged, which means that the
- immune system does not reject them.



"The spectacular progress in the field of stem cell research has laid the foundation for cell based therapies of disease which cannot be cured by conventional medicines."

#### Source:

Stem Cells Applications in Regenerative Medicine and Disease Therapeutics. International Journal of Cell Biology, Published 2016

### ARE THESE STEM CELLS VIABLE AND HOW MANY WILL I GET?

There is a great misconception when it comes to the viability and function of stem cells. Therefore, it is important to look at the research:

- Research published in 2015 by Keck School of Medicine (University of Southern California) reported that umbilical cord tissue has the highest amount of stem cells, with an average of 2.5 million and up to 4.7 million stem cells per 1mL (one milliliter). This makes umbilical cord tissue a superior source of stem cells for research or clinical use (source: Journal of Arthroscopy. Sep 2015; 31(9):1836-43).
- Our stem cells are collected using a new technology, and our samples are tested for viability by our vendors and by a third-party lab. It is estimated that for every single unit of injectable or intravenous umbilical stem cells, you will receive about 4 to 8 million stem cells.

### **HOW MUCH DOES IT COST?**

In relation to a total knee replacement or a disk fusion surgery, stem cell therapy is incredibly cost effective. The average knee replacement surgery is about \$49,500, hip replacement surgery is \$39,200, and back surgery is between \$25,000 and \$120,000. Most insurance companies will cover up to 80% of costs (surgery, physical therapy, hospital stay, medication, etc.), so the average co-pay for the patient is between \$4,000 and \$12,000. That's not including your time off work to recover, usually a few weeks or months after the surgery.

On the other hand, stem cell therapy does not require rehabilitation, and the usual cost is between \$4 and \$10k. We also offer financing programs and occasional promotions.

#### WHY A NEW WAY CLINIC?



We use the highest quality stem cells from amniotic and umbilical cord tissue.



Our team has advanced training in injections and stem cells therapy and is experienced with treating a variety of joint, nerve, and organ dysfunction.



We provide a post-procedure protocol that includes nutritional guidance, unique herbal medicine, and supplements to support the function of your stem cells.



We offer financing options for an easy monthly payment (with approval).

Dr. Tal Cohen, DAOM is the program director in A New Way Clinic and a healthcare provider with over 15 years of clinical experience. He specializes in integrative solutions for chronic pain and chronic diseases.

Dr. Cohen is the author of several books about chronic pain, Functional medicine, environmental toxins, and stem cell therapy. He has presented these topics for several institutions, such as Oregon Health and Science University, Linfield College of Nursing, National University of Natural Medicine, and Oregon College of Oriental Medicine.





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