

# Stem Cell Therapy for Parkinson's Disease (PD)



**R3 Stem Cell International R3Stem.com +1 (888) 988-0515**  
*Changing Lives Every Day!*

# Overview of Parkinson's Disease (PD)

Parkinson disease (PD) is the second most prevalent progressive neurodegenerative disorder that is characterized by relatively focal degeneration of midbrain dopamine (mesDA) neurons. This issue occurs in ONE area of the midbrain called the substantia nigra pars compacta. The loss of dopamine producing neurons results in a subsequent deficit in dopamine.

The prevalence of PD in those over 65 years old is 2% with men being affected 50% more than women. It is a movement disorder that causes varying symptoms such as bradykinesia, resting tremor and muscle rigidity. Impaired balance and coordination occur, sometimes leading to falls. Difficulty walking and talking may ensue as well.

The gold standard treatment for PD is levodopa, which is combined with carbidopa to prevent nausea and vomiting. Complications

include end- of-dose wearing off and levodopa- induced dyskinesia. Other common adverse effects include hallucinations, impulse control disorders and other psychiatric problems

Deep brain stimulation (DBS) is commonly used when medical therapy is exhausted in an attempt to normalize motor function.

## **Stem Cell Therapy for Parkinson's Disease**

The optimal treatment is one that would enter the brain and actually be neuroprotective and neuroregenerative. Initial research into the effects of stem cells on the brain show excellent effects for:

- Neurogenesis
- Revascularization
- Anti-apoptosis
- Immunomodulatory
- Anti inflammatory

Given the ability to migrate and engraft at sites of inflammation

and injury, most of the effects are exerted by their cell to cell communication along with neurotrophic factors and cytokines.

A 2017 study in Neural Regeneration Research showed that the umbilical cord maintains an unlimited source of cells differentiable towards dopaminergic neurons. A study the following year in the Journal of Chemical Neuroanatomy showed that Wharton's Jelly derived mesenchymal stem cells may be a great source for the production of dopamine producing neurons.

A 2010 study out of Translational Research included seven PD patients receiving bone marrow derived stem cells directly into the brain. Three out of the seven showed dramatic improvements, and no adverse events were seen.

R3 Stem Cell International has treated over 50 patients with PD to date, using intrathecal umbilical cord stem cells numbering between 50 million up to a billion cells. Patients have seen substantial improvements, with no significant adverse events to date.



# Frequently Asked Questions



## **Q What Kind of Stem Cells are used and how many?**

R3 does NOT use embryonic stem cells (ESCs) or induced pluripotent stem cells (iPSCs) for treatments, as they are not ready for clinical use due to potential risks. R3 International uses biologics that contain mesenchymal and hematopoietic stem cells. Not only are they safe for patients, they are also effective for many conditions.

## **Umbilical Cord Stem Cells –**

Umbilical cord (UC) tissue is an amazing source of active, potent mesenchymal stem cells along with many other regenerative elements. R3 International offers UC treatments from 5 million stem cells up to a BILLION stem cells! They come from donor tissue after a scheduled c-section with no harm to baby or mother, and



are processed at accredited labs that are cGMP compliant and ISO certified.

**Exosomes** – These are small extracellular vesicles that are by products of umbilical cord stem cells. Active in cell to cell communication, they facilitate repair and regeneration. R3 incorporates exosomes frequently into patient treatments.

**Autologous Adipose** – Some R3 International Centers offer stem cell therapy using a patient's own adipose (fat) tissue. Adipose tissue contains plentiful stem cells, exosomes, growth factors, secretomes and other regenerative elements. This is typically performed in conjunction with umbilical cord stem cell treatment.

### **Q Are there risks involved?**

Stem cell and exosome procedures at R3 International are very safe. To date, no patients have experienced a significant adverse event such as disease transmission, deep infection, or rejection reaction. The vast majority of side effects have been mild and temporary.

However, any regenerative procedure with donor material entails risks which may include infection, rejection, allergic reaction, nausea, dizziness, fever, bleeding and others.

### **Q What are the outcomes?**

After nine years and 16,000 stem cell procedures worldwide, R3 consistently achieves an 85% overall success rate. This includes patients with very difficult conditions.

Patients need to understand that stem cell therapy is not a cure for a condition, rather, typically very effective at modifying and/or mitigating disease. It may need to be repeated as well, as patients are different in their response

# Safe, Effective Treatment with R3 Stem Cell International

R3 Stem Cell International takes great pride in helping patients with safe, effective regenerative therapies that are nonsurgical and drug-free. Treatment protocols are customized to each patient's specific needs, with an unparalleled combination of excellent outcomes, safety and cost effectiveness.

Most stem cell clinics do not understand that high cell counts are critical to patient success. If they do, then the treatment pricing ends up being 2-3 times higher than R3 because of the biologic cost. They simply do not have the volume to produce quality biologics with high cell counts at affordable pricing. R3 has spent the last decade growing its patient base worldwide to develop the buying power so that the best biologics are offered with considerable savings. Our mission has always been to offer the most

effective stem cell and exosome therapies without having finances get in the way.

By offering high cell counts at extremely competitive pricing, R3 provides patients with the absolute best chance of improvements, while doing its best to make the treatments affordable. R3 leverages its global volume to make its first rate stem cell treatments the most cost effective anywhere in the world, while maintaining quality assurance second to none!

We use best practice protocols developed from our own clinical experience as well as the peer reviewed literature to stay on the cutting edge of regenerative therapies. Rest assured that when you receive treatment with R3 Stem Cell International, you and your loved ones will be in the best hands!



# Partial List of Conditions Treated at R3 Stem Cell International



- Alzheimer's Disease
- Amyotrophic Lateral Sclerosis (ALS)
- Ankylosing Spondylitis
- Anti Aging
- Arthritis & Joint Pain
- Autism
- Back Pain
- Cerebral Palsy
- Chronic Kidney Disease
- Cirrhosis
- COPD
- Crohn's Disease
- Degenerative Disc Disease
- Diabetes
- Erectile Dysfunction
- Failed Back Surgery
- Fibromyalgia
- Heart Failure
- Hepatitis
- Inflammatory Bowel Disease
- Kidney Failure
- Liver Failure
- Lung Disease
- Lupus
- Lyme Disease
- Neuropathy
- Multiple Sclerosis
- Muscular Dystrophy
- Osteoarthritis
- Parkinson's Disease
- Post Concussion Syndrome
- Post Covid
- Psoriasis
- Pulmonary Fibrosis
- Rheumatoid Arthritis
- Scleroderma
- Spinal Cord Injury
- Spinal Muscular Atrophy
- Stroke
- Traumatic Brain Injury
- Ulcerative Colitis

# Getting Started



Starting the process for treatment at R3 Stem Cell International is easy. You can visit **R3Stem.com** to see the various locations available and complete your consultation request, or also call us at

**+1 (888) 988-0515**

Each prospective patient undergoes a virtual consultation with one of our highly experienced stem cell doctors. Very convenient!

***Find out today if you or a loved one is a candidate for life changing stem cell therapy.***



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