

# Diabetic Foot Ulcers









# **Overview**



Stem cell treatment can be used to support those with Type 2 diabetes. About the fact that stem cell therapy cannot cure diabetes, patients with diabetes Type 2 who seek treatment from Stem Cell Care India may see a substantial reduction in symptoms and complications as well as a likely pause in the disease's progression.

The stem cell therapy that is used by patients with diabetes provides the ability to observe changes in the signs and effects of numerous disease conditions, such as improved regulation of blood sugar levels, better blood sugar control, less frequent urination, increased stamina, better wound healing, etc.

The more likely possibility is that when you hear the word "diabetes," you will equate it with blood sugar and the need to take insulin. Diabetes, though, has two distinct types — Type 1 and Type 2. When the body is unable to produce sufficiently insulin and also becomes insulin-resistant, Type 2 diabetes is more prevalent. High blood pressure, called hyperglycemia, results from this.

A frequently ignored condition is Type 1, an allergic disorder through which the body's immune response kills the pancreas's insulin-producing beta cells. People with Type 1 diabetes are placed on insulin because they cannot produce insulin without these pancreatic cells.

Age is often, but not always, a major factor. According to study, almost all adults with Type 1 diabetes have been diagnosed by the time they are in their youth. Form 1 diabetes is also known as juvenile diabetes. However, adult-onset autoimmune diabetes (AODA) nearly invariably progresses after the age of 30, and is thus diagnosed with Type 1 diabetes.

# **Symptoms**

A Heavy Headache

An Awkward, Uneasy Feeling

Diminished Vision

Lack Of Emotion

Inability To Walk Or Drive Safely

Musculoskeletal Pain

It Happens As Urine Builds
Up In The Eyes, Ears, And
Nose, And Allows One To
Lose All Sense Of Taste,
Smell, And Touch.

Vertigo Depression

Peeing Frequently; Feeling Hungry, Thirsty, And Exhausted All The Time

Losing Or Losing Weight Quickly

The Pricking Feeling Of The Skin

Unfavourable Effects Resulting From The Delay In The Healing Of Wounds



- Obesity, overweight, and inactivity
- Insulin resistance:
- Genetic History
- Genetics
- Exposure to viruses and other environmental factors
- Dehydration
- Weight loss
- Diabetic ketoacidosis
- Damage to your body

# Diagnosis



- Blood Sugar Fasting, PP
- HbA1c
- CBC
- THYROID PROFILE, TOTAL, SERUM
- GAD-65 (GLUTAMIC ACID DECARBOXYLASE- 65)
- ISLET CELL ANTIBODY, SERUM

# **Adverse Reaction**

We comprehend that patients might have apprehensions about adverse reactions to the treatment. Possible side-effects of stem cell therapy may differ from individual to individual; any complications depend upon the type of processes you are undergoing.

Side-effects experienced by our patients are consistent with predictable reactions for routine IV and LP injections. The most common reactions to the treatment are fever, headache, diarrhea, leg pain, vomiting and allergic reactions. Less than four percent of patients experience any of these signs.

### The most common reactions to the stem cell treatment are:

Fever Headache Leg Pain

Diarrhea Vomiting Allergic reactions





# **Treatment Procedure**



The Viezec India offers a very safe and non-invasive treatment protocol and procedure. The patients can travel the next day. The following is the day-wise schedule for the patients.

### Day 1-

- •Pick up from the Airport to the Hospital
- •Interaction between Dr and Patient, to clear all their doubts at that time
- Admission procedure
- •Clinical examination & Lab test will be done prescribed by the doctor

### Day 2-

- •Stem cell Procedure
- Supportive therapies
- Physiotherapy

### Day 3-

- Supportive Therapy
- Physiotherapy
- Discharging formalities
- •Drop back to the Airport

# International Patient Facilities

# Quote/treatment plan

Complimentary airport pick up Scheduling of all medical appointments Cost estimates for anticipated treatment









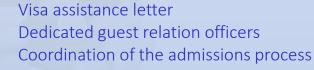
















# **Treatment**



The majority of the cases of AMD involve the slow-developing type of AMD, called dry AMD. Currently, as of 2020, there are no treatment options available for dry AMD, but some promising new therapies are in it. The slow-developing form of AMD, called dry AMD, constitutes the majority of AMD cases. There are no treatment options currently available for dry AMD as of 2022, but some exciting new treatments are in the pipeline.

For all aspects of medicine today, including multiple cases of cancer, as well as for dry AMD, stem cell treatment is gaining momentum. The aim of stem cell treatment for AMD is to be able to replace retinal cells that have been damaged or killed by symptoms with new stem cells.

Stem cells are also inserted, through IV infusion, into the blood supply of the body. But, experts are focusing on how the stem cells can be transplanted directly into the eyes. One strategy involves placing the stem cells into a fluid suspension that can be injected under the retina

We use the unique technology of Mesenchymal stem cells extracted from Wharton's jelly (WJ) for treating MS. WJ-MSCs offer remunerative and budget friendly favorable treatment for tissue engineering purpose. An optic nerve stem cell regeneration aids this and more. They might help in the three peculiarly prominent ways – prevent damage, repair damage and develop new medicines.

The treatment will take place in multiple steps comprising of the following.

- •Qualification for the treatment: Our experts will assess all your past medical history and symptoms to examine and correctly judge the severity of your condition. A series of tests will be performed to gain a knowledge of the stage of disease. As per the test results, our experts will counsel the patient for further process of the procedure.
- •Source Extraction: With guidance and approval from the physician, the source of extraction will be decided. In general, WJ-MSCs are the most potent allogenic sources available. Stem cells from a healthy person (the donor) are transferred to the patient's body. A bone marrow donor is considered for allogenic stem cell transplantation. A scraping from the inside of the patient and his or her sibling's cheek is tested to determine tissue type. An expert will examine to identity Human Leukocyte Antigens (HLAs). If the HLA on the donor cells are identical or similar, the transplant is more likely to be successful. Stem cell for optic nerve atrophy is promoted to aid patients suffering from similar kind of ailment.
- •<u>Laboratory Processing:</u> The extracted samples will be sent to government approved cGMP laboratory for processing. The sample manipulation will take place in a state-of-the-art facility in compliance with the ISO and GMP standards and using the latest technologies. The client will receive a third party certificate from an internationally accredited lab for quality purpose. An optic nerve stem cell therapy provides just that and more.
- •<u>Stem Cell Implantation</u>: Once the stem cells are ready to be implanted, the doctor will identify the most potent method of infusion based on the patient's physical and mental well-being. The only limitation of the allogenic stem cell treatment is that this procedure carries the risk of developing Graft vs. host disease (GVHD), wherein the patient's body rejects the donor stem cells. Human leukocyte antigens (HLA) can help minimize the risk of any side effects. In this procedure, the HLA of the patient and the donor are primarily matched as closely as possible.

<u>Stem cell treatment Aftercare:</u> The patients will be asked to visit the doctors for evaluation. You will be provided counselling for speedy recovery and also kept on check to ensure that no side effects affect the human body.



# Mechanism

Stem cells can help restore the weakened retina and can contribute to a complete halt in the process of loss of vision, thus enhancing the general quality of life of humans. The new doors to the cure and changes in Macular Degeneration patients have been opened through Stem Cell Therapy.

Program for Stem Cell Therapies to treat multiple diseases. Each patient receives 200-300 million stem cells during the stem cell procedure. Not only does the sum of stem cells compensate everyday losses, but it beats them by a million times. The stem cell source, which has basically been missing for the last 15 to 20 years, is thus retrieved and revived. Different organs get rejuvenated following our stem cell injection, and they get revived when the new and activated stem cells replace the old ones fully.

Introduced into the retrobulbar space, stem cells may start to work on damaged tissue and begin to rejuvenate the optic fibers and retinal cells. Photoreceptors and other cells can be differentiated from mesenchymal stem cells. It is possible to use segregated stem cells to treat tumors in the macular and retinal cells.

- There are three stem cell classes that vary, based on their position in the body and their potency (the ability to develop in different cell lines). Ophthalmologist performs experiments on both of these classes. Embryonic stem cells (ESCs) are cells that are found at an early stage of development in the inner cell mass of an embryo. ESCs are pluripotent, meaning that in the course of growth they will become any cells.
- Fetal stem cells. Following an abortion or from cord blood, this community of cells is removed from the fetus. Fetal SCs have greater functionality than adult SCs and are pluripotent. Such cells exhibit increased recovery rates of photoreceptors and are capable of sustained doubling during cultivation. Their use, however, is often synonymous with ethical concerns. Study on fetal cells is banned by law in many countries worldwide.
- Adult stem cells, found in mature tissues, are immobile and non-specialized cells. Adult SCs collaborate with new ones to replace dead cells and facilitate tissue regeneration. Nonetheless, they create a microenvironment for tissues, shield them from degeneration (destruction), and also have the capacity to self-renew and create mature cells. Hematopoietic stem cells, mesenchymal stem cells, and neural stem cells may be differentiated by multiple forms of SCs.
- Relevant antigens, which are a common cause of incompatibility between donor tissues and the recipient during transplantation, are still not generated. ESCs may be useful in managing retina degenerative disorders, retinal pigment epithelium pathologies, and optical neuropathies. Research on ESCs is banned at the regulatory level in many countries, as their extraction from the embryo interrupts its further production.



# **Patient Testimonials**



Rajat Tandon (Ahmedabad, Gujrat): I am Rajat and a year ago I was very irritated by my foot ulcer, I was even prescribed by a doctor to go for amputation as that will be the most favorable case, but then in order to avoid the amputation, I decided to find some other way of treating this condition and soon enough I had reached the doors of Viezec. They were really confident in the stem cells and this confidence made me feel like at least my condition will improve a little. It has been a year and I can't still believe in the results. I am very thankful to the whole of the team of Viezec as if it was not for their confidence, I would have maybe undergone amputation.

**Denilson van Kats (Boskoop, Netherlands):** Hi, I firstly want to start by thanking the amazing minds Viezec for helping me out during my treatment. They not only assisted me in having the best treatment but also helped me with the international travel-related issues. I am surprised how much I was struggling and as soon as I got them to give me some assistance, all the struggle just disappeared. I would suggest everyone who is traveling to India for Stem Cell Therapy consider Viezec. They are great at what they do.

**Eddie A. Whitehead (Avalon, California):** I recently received stem cell therapy for my foot ulcer on the advice of my wife and this therapy seems to have been working wonders as my condition has become a lot better. Also, I have no complaints related to my hospitalization as that went by In a breeze of comfort. All the healthcare workers there were so kind and helpful to me. I am sure that they are the best clinic I have ever visited.







# **Improvement**



It's frightening to envision a life without a clear central goal, but there's reason to be hopeful. Doctors are also searching at ways to improve patients with this condition, and they're researching experimental therapies that may one day be used as a therapy. For instance, stem cell development is currently ongoing, with the potential to lead to a cure in the future.

Before these groundbreaking therapies become a reality, it's important to speak with an experienced doctor who will guide you through current procedures for the type of macular degeneration you have already. We have physicians available to work with you, and our doctors will use cutting-edge procedures to keep your eyes as healthy as possible. Patients' effects have changed as a result of stem cell therapy provided by Stem Cell Treatment India.

## **Our Promise**

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# **Post Treatment Care**

### Postoperative care

The stem cell therapy does not damagingly affect patients in any way. Generally, the patients are permitted to leave after few hours after the completion of the stem cell treatment. A 24-hour patient hotline number is there for any inquiries after their discharge. The concerned physicians or surgeons of the clinic also stay in contact with their corresponding patients through telephone or email. By doing this, they can get the precise feedback about their progress and also suggest further recovery if required. Say for example, in case of a diabetic patient, after hearing about the patient's present symptoms, the concerned doctor can recommend the needed dosage of insulin.

### **Treatment disclaimer**

It is an imperative fact to comprehend that stem cell treatment in every prospect has the ability to diminish symptoms of numerous diseases. It also has the aptitude of ceasing several degenerative procedures, but one should also know that this treatment may not work for all kinds of patients. Viezec does not have the right of forecasting or warranting the success of this treatment.

In harmony to the current condition of a patient, the medical team of Viezec might propose the stem cell transplantation or may even withdraw the treatment under abnormal situations. However, in any case, the approval of the patient is a must. Keeping the patient's current health condition and unforeseen health hazards in mind, the medical staff might propose an alternative stem cell transplantation process. In exceptional situations, they may entirely cancel the treatment.



### What is Type 1 & Type 2 Diabetes?

Type 2 diabetes is a common form of the disease and is different from type 1 diabetes. In type 1 Diabetes, which in young children also known as Juvenile Diabetes, the body is not able to produce insulin, which is a very important requisite for glucose metabolism. Whereas type 2 diabetes is more common in adults, wherein the insulin, which is produced by the body, is not able to metabolize the blood glucose. Whether you are an insulin resistant or have too little insulin the end result is the high blood glucose level.

### What are the common symptoms associated with the disease?

The disease develops gradually and some of the common symptoms associated with the disorder are fatigue, extreme thirst, frequent urination, extreme hunger, weight loss, frequent infection, slow wound healing, blurry vision.

### What are the risk factors associated with the disorder?

Several genetic and environmental factors such as hereditary link ups, diet, smoking, high BMI, age are related to the disease.

### How is it diagnosed?

Diabetes can be routinely diagnosed with blood sugar testing and urine analysis. For a fast and quantitative assessment, the doctors might prescribe antibody tests and genetic tests.

### How can stem cells be beneficial to treat?

Undifferentiated adult autologous stem cells are mutable and can meta morph into countless number of cells as per the requirement. This remarkable property of stem cells can be exploited for treating variety of diseases. These cells can be isolated from the most potent sources of our own body known as Adipose Tissue and Bone Marrow. Upon implanting back into the body, these cells can rapidly multiply with the great speed to restore the distorted and damaged cells, setting up a micro environment that can stimulate the secretion of growth factors, cytokines as a booster for regeneration. Stem Cell for diabetes is one of the right treatment to cure the disease.

### Why is stem cells treatment better than conventional treatment approach?

Conventional treatment approach involves hormone therapies which are again associated with prolonged and various side effects. Long term use of steroids is also termed dangerous for welcoming many diseases. Additionally, if left untreated for a prolonged period of time, it can give rise to diabetic foot, kidney damage and other physical problems.







As a stem cell company at the cutting edge of Regenerative Medicine, Viezec is dedicated to developing technologies and protocols for safe and effective treatments utilising adult stem cells derived from the umbilical cord.

StemCellCareIndia offers a comprehensive range of stem cell solutions in India for the treatment of different kinds of diseases. Our main focus is helping people get back to good health through stem cell treatment. We have association with the leading hospitals, research institutions and medical colleges specialising in regenerative medicine to offer cost—effective healthcare.

Around the world, emerging technologies and advancements in stem cell therapies are driving major changes in healthcare. With the use of potent mesenchymal stem cells isolated from the tissue of umbilical cord, damaged cells are replaced by new cells. This makes the symptoms of the diseases disappear. We are passionate about the latest developments in stem cell therapies and strive to deliver safe and effective treatment options to patients' world over at the highest medical standards.

As the leading stem cell therapy company, StemCellCareIndia takes care of each and every section of the Medical Trip to New Delhi. We ensure our patients get the best healthcare service by bringing in place, the renowned multispecialty hospitals, latest stem cell treatments, economical accommodations and travel options for the patients.

### **VISION**

Our vision is to provide effective healthcare services to patients all over the world fast and hassle-free. For this, we work closely with some of the best medical centres and research institutions in providing stem cell therapeutic solutions to our patients. Our work is to redesign and deliver the best treatment possible for the safe and fast recovery of patients and make their journey towards 'good health' as stress-free as possible.

### **MISSION**

Our mission is to provide the international patients visiting in New Delhi, the satisfaction of best treatment for any kind of disease. The face of healthcare has changed over the years and so, have the healthcare costs. We have a professional team that takes care of every need of international patients, from appointment to accommodation. Through our network of internationally accredited hospitals and research clinics, we provide reliable and bespoke assistance. Seeing patients getting healthier and happier is what make us happy.



# **OTHER DISEASE**

Stem cells are the prime cells that are present inside our body as our own "natural resources" and can be recovered back in crisis. The regenerative power of these stem cells will be employed in case of usual deterioration of the body. In an unhealthy condition as well, when the whole cellular system of a specific organ; these cells will be useful in redeveloping as many cells as possible to renovate back the lost function, to fairly an extent. This far-reaching regenerative potential of stem cells has been employed by the science of medicine to treat multiplicity of ailments, for which no known treatment modality does occur so far. Thus, stem cell therapy can definitely be a new medical blessing that has been recognized for treating numerous health stigmas, which are worrying mankind so far.

In the recent years, stem cells therapy has been evolving as the most viable option to treat variety of degenerative illnesses, which cannot be treated with the assistance of conventional treatment choices. Numerous clinical evidences have been amassed from gigantic obtainability of data to assess theirmense potential of stem cell therapy as a contemporary medicine. Various doctors are in this regard, supporting stem cell therapy in India; indicating it to be the most innovatory way to treat the root cause,



with the assistance of body& own restoring mechanism. Although, the therapeutic results are very promising, to affirm it to be the mainstream medicine; adequate clinical evidences are required, which can be gotten via huge variety of clinical trials. Thus, unquestionably, stem cells treatments are very auspicious and can prove as the prospective alternative for futuristic treatment arrangement.



# SUPPORTIVE THERAPIES

Viezec is unlike any other stem cell treatment provider in the world, the reason? Since its inception, we have been developing and enhancing our stem cell treatment protocols with the notion that stimulation via number of supportive therapies is essential to augment stem cell regenerative response. Our treatment methodology permits our patient to maximize their improvements. Learn more about the diverse therapies provided in our treatment practices.

### **ACUPUNCTURE**

Acupuncture is a method in which practitioners stimulate particular points on the body – most often by inserting thin needles via the skin. It is one of the most effective practices used in old-style Chinese medicine. Acupuncture arouses nerve fibers to convey signals to the spinal cord and brain, stimulating the body's central nervous system. The spinal cord and brain then release hormones accountable for making us feel less pain while improving overall health. Acupuncture might also: upsurge blood circulation and body temperature, affect white blood cell activity (responsible for our immune function), decrease cholesterol and triglyceride levels and normalize blood sugar levels.

### **EPIDURAL STIMULATION**

Epidural stimulation has aided preceding patients to recoup some voluntary motor function. The technology comprises of a device implanted in the epidural space which constantly delivers electric signals to the spinal cord. These electric signals mimic the ones that are delivered by the brain to voluntarily control the body's movements. The epidural stimulation device is offered by Medtronic.

### **AQUA THERAPY**

Aquatic Physical Therapy is the practice of physical therapy in a specially designed water pool with a therapist. The exceptional properties of the aquatic environment augment interventions for patients with neurological or musculoskeletal conditions. Aquatic therapy embraces a widespread variety of techniques permitting patients to improve their balance, muscle strength and body mechanics. Aquatic therapy works to boost the rehabilitation process and support efficiency of stem cell treatment.

### HYPERBARIC OXYGEN THERAPY

Hyperbaric Oxygen Therapy (HBOT) is the medical use of oxygen at a level upper than atmospheric pressure. The equipment necessary comprises of pressure chamber, which might be of rigid or flexible construction, and a means of supplying 100% oxygen into the respiratory system. Published research shows that HBOT upsurges the lifetime of stem cells after inoculation and offers an oxygen-rich atmosphere for the body to function at optimal levels.



### **NERVE GROWTH FACTOR (NGF)**

Nerve growth factor (NGF) is a member of the neurotrophic factor (neurotrophin, NTFS) family, which can inhibit the death of nerve cells and has several features of typical neurotransmitter molecules. NGF plays an imperative role in the development and growth of nerve cells. NGF is synthesized and secreted by tissues (corneal epithelial, endothelial, and corneal stromal cells), and it can be uptaken by sympathetic or sensory nerve endings and then conveyed to be stored in neuronal cell bodies where it can encourage the growth and differentiation of nerve cells. NGF can exert neurotrophic effects on injured nerves and promote neurogenesis (the procedure of generating neurons from stem cells) that is closely related to the development and functional maintenance and darning of the central nervous system. It is also adept of encouraging the regeneration of injured neurons in the peripheral nervous system, improving the pathology of neurons and guarding the nerves against hypoxia (lack of oxygen)/ischemia (lack of blood supply).

# TRANSCRANIAL MAGNETIC STIMULATION

Research has shown that TMS can efficiently treat symptoms of depression, anxiety, neurological discomfort, stroke, spinal cord injuries, autism and more. This process is very simple and noninvasive. During the process, a magnetic field generator or "coil" is placed near the head of the individual getting the treatment. The coil produces small electrical currents in the area of the brain just beneath the coil via electromagnetic induction. This electrical field causes a change in the trans membrane current of the neuron which results in depolarization or hyper polarization of the neuron and the firing of an action potential.

### **OCCUPATIONAL THERAPY**

Occupational therapy interventions concentrate on adapting the environment, revising the task and teaching the skill, so as to upsurge participation in and performance of everyday activities, predominantly those that are meaningful to the patient with physical, mental, or cognitive maladies. Our occupational therapists also focus much of their work on detecting and eradicating environmental barriers to independence and participation in day-to-day activities, akin to everyday life.

### **PHYSIOTHERAPY**

Physical therapy or physiotherapy (often truncated to PT) is a physical medicine and rehabilitation specialty that, by using mechanical force and actions, remediates damages and promotes flexibility, function and quality of life via examination, diagnosis, prognosis and physical intervention. We combine our PT with stem cells for supreme physical rehabilitation improvements.

### **NUTRITION THERAPY**

Medical nutrition therapy (MNT) is a therapeutic methodology to treat medical conditions and their related symptoms by the usage of a specifically tailored diet formulated and monitored by a specialist. The therapy targets at fixing nutritional inefficiencies and physiological imbalances so as to provide the best environment possible for the stem cells to develop appropriately as well as improving patient's general health.















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