

# Skin Burns





## **Overview**

Burn is a type of injury that affects the skin and other organic tissue of the body chiefly because of heat, radiation, electricity and/or fiction. Moreover, injuries are caused by unremitting exposure to UV radiations, chemicals fumes as well as respiratory mutilation that occasions from smoke inhalation can also considered as burn injuries. Burns are amid the most common domestic injuries. Even internationally, burns are a serious public health concern. As per the WHO report, an assessment shows that 2, 65,000 deaths occur every year for fires alone. Added 10% deaths were the cases reported to be from scalds, electrical burns and other. Skin burns can get really fatal and may even affect the patient's confidence, stem cell therapy for skin burns has surfaced to aid as help for the affected people.

The type of wounds by burns is categorized by severe skin impairment because of deceased tissue cells. Since the skin is the biggest organ of the body with a lot of imperative functions such as protection, temperature regulation, sensation, storing of water, etc. A severe burn can not only modify the physical structure but also the emotional security of the individual as well as his whole family. Folks with severe burn injuries might be left with the loss of physical aptitudes, loss of mobility, deformity, scarring, etc. At times, the injury can penetrate into the deep germ layers causing muscle and tissue impairment, affecting every system of the body. To help people lead a normal life with the stem cell therapy for skin burns in India.



**Blisters** 

Pain (Although the degree of pain is not reliant upon the severity of the burns, the most serious burns can be painless).

Peeling, red, patchy skin.

Inflamed, white or burnt skin.

Slight wheezing, trouble in breathing and coughing.

Dark, carbon tainted mucus.

Shock as in pale, slimy skin, weakness.



- Fire
- Electrical currents
- Radiation, such as that from X-rays
- Sunlight or other sources of ultraviolet radiation, such as a tanning bed
- Hot liquid or steam
- Hot metal, glass or other object.
- Chemicals such as strong acids, lye, paint thinner or gasoline
- Abuse

## Diagnosis



The extent of a burn is usually based on the "rule of nines" - each arm is considered 9% of the body surface area, each leg is 18%, the back and front of the torso are each considered to be 18%, the head and neck are 9%, and the genital region is 1% of the surface area. Using these classifications, a physician can make a clear diagnosis.

## **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 Global Stem Cell Care 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

Visa assistance letter
Dedicated guest relation officers
Coordination of the admissions process





## **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.



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**



#### Chandrabhan Ghoshal (Bengal, India):

I had second-degree burns and when I decided to go to the hospital, they recommended a stem cell treatment, which is less painful than the normal treatments. I decided to get it. It has been a few months and I have been totally cured. This really is an amazing method and the staff at GSCC was also so amazing. I thank them all.

#### Piyush Kanwal (Mumbai, India):

I'm a burns victim and I tried the stem cell treatment that is said to promote healing of the skin. The treatment is applied to the affected area. The results were amazing, my burns healed in a very less time and I saw a huge improvement in the scars. The treatment costs are also not bad for the kind of results I got. So if you're looking for a treatment for burns, I suggest you try this one.

#### Daniel Ligon (Florida, USA):

I had a skin burn on my hands due to an accident and was about to spend a fortune on conventional treatments. A friend suggested that I try out a stem cell treatment that was affordable and effective. My burns were healed in a couple of months and now I do not have any scars to remind me of the accident.

## **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. GlobalStemCellcare 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 GlobalStemCellcare 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.





#### •How are stem cells stored and where are they kept?

Our stem cell banking center is based in Bangkok, Thailand. Both stem cell samples are first marked with special barcodes that indicate the donor's name, storage date, and inventory number. For fast extraction, we use special tools to automatically record and evaluate samples.

After that, the samples are placed in a vacuum-insulated storage tank with the recommended amount of specific liquid nitrogen for deep cryogenic storage. These bins may be cryobags or even vials, depending on the need.

Both cryopreservation samples are monitored on a daily basis, and with backup systems in place, a steady temperature is retained. Liquid nitrogen needs a temperature of -196 degrees Celsius, while liquid nitrogen vapors need a temperature of -175 degrees Celsius.

#### •How long do burns take to heal?

Moderate thermal burns can heal fully within a week to ten days. Severe second-degree burns can take 2 to 3 weeks to cure and can result in skin discoloration or scarring. Third-degree burns often necessitate skin grafts, which can take weeks or months to heal, particularly if scarring is present..

#### Burns tend to be caused by a variety of environmental factors:

- The majority of burns are called *flame burns* since they're caused by fire. Contact with flame can cause direct injury to the skin and tissue.
- A wound to the skin caused by a hot liquid is called a *scald*. The thicker the liquid and the longer its contact with the skin, the greater the scald.
- Damage to the skin caused by a hot object is called a *contact burn*. In such instances, the burn is usually confined to the part of skin that touched the hot object. Examples are burns from cigarettes, irons, or cooking appliances.
- Sunburn involves damage to the skin caused by ultraviolet (UV) rays, which are emitted from the sun or a tanning bed.
- Electrical burns are caused by currents of electricity. These burns are usually very deep and may cause severe damage to the skin and its underlying tissue.
- Contact with flammable gases or liquids may cause chemical burns. Inhaling hot gases could damage the upper airways, making it difficult to breathe.



## **Global Stem Cell Care**

As a stem cell company at the cutting edge of Regenerative Medicine, GSCC 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.



## **AGING & LONGIVITY**

Using stem cells to more effectually decelerate aging and reverse the signs of ageing is not a new idea, but it is now becoming better acknowledged in the general public. Here at the Global Stem Cell Care, we are thrilled to be assisting patients like you look and feel 20 years younger!

Stem cell anti-aging therapy is the most progressive and contemporary approach available for slowing, and even reversing, the ageing procedure in humans. Furthermore, anti-aging stem cell therapy helps fortify the remaining cells so they last longer. Eyeing for diverse skin rejuvenation therapy? You have come to the right place as stem cell therapy can be used for skin and face renovation. Aging is a very natural but astonishingly complex process everybody goes through as they get older. The course of aging is one where the cells of the body become gradually impaired over time because of normal wear and tear and exposure. Finally, those cells expire. Some cells are supplanted as they decease but it is never quick enough to compensate totally for the cells dying off. Thus, the signs of aging start to appear. New stem cells and related therapies are demonstrating to be very useful at slowing down or, in some circumstances, even



reversing this natural aging procedure. Stem cells have a unique regenerative and anti-aging effect that aids to repair organs, tissue sand cells that have been impaired by stress and/or exposure to toxins and contaminants. This is why stem cell therapy is one of the most focused and contemporary medical discoveries nowadays. Naturally, stem cell application helps embolden new healthy cell growth so the body stays healthy and sturdy, unlike old-style anti-aging technology and treatments that only treat the surface symptoms instead of the source of the problem.



# SUPPORTIVE THERAPIES

Global Stem Cell Care 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 anumber 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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