



UNIVERSAL STEM CELL CENTRE

Managed by Sarvadnya HealthCare LLP.

**REGENERATE TODAY
REJUVENATE TOMORROW**

ADVANCED • SAFE • EFFECTIVE

THE POWER OF **STEM CELLS** FOR A BETTER TOMORROW



REGENERATE

Damaged Cells
& Tissues



RELIEVE

Pain & Improve
Mobility



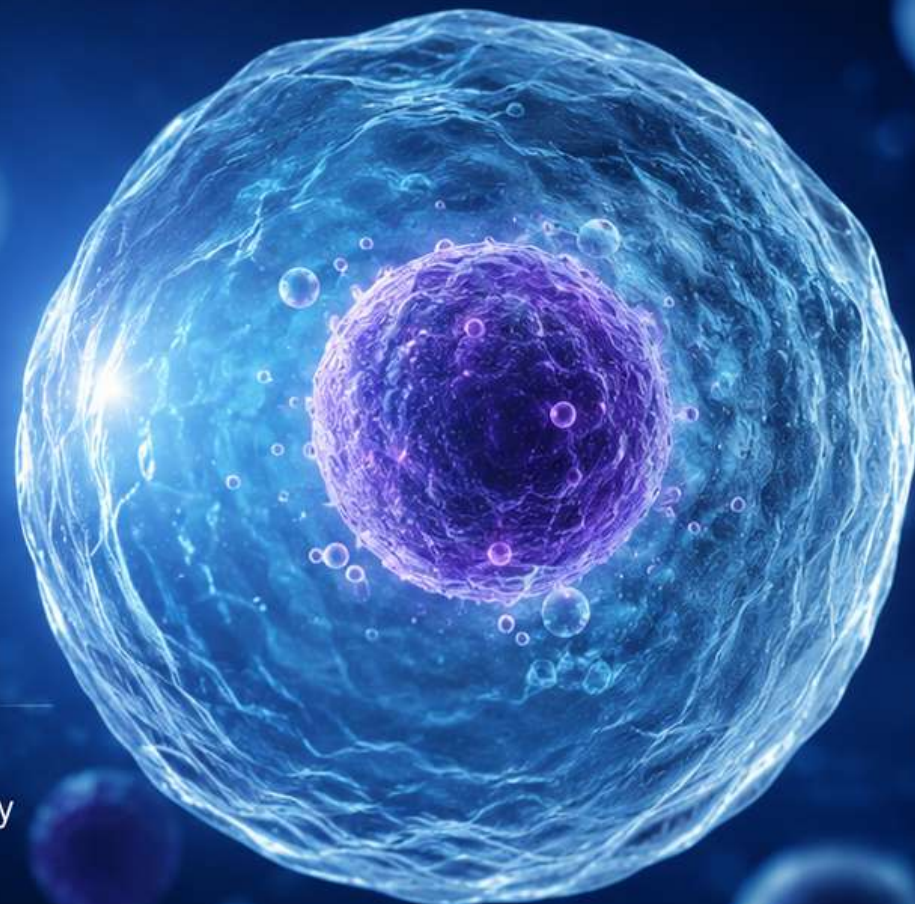
REPAIR

& Restore Natural
Function



SAFE & ADVANCED

Cutting-edge Technology
& Expert Care



NABL ACCREDITED
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EXPERT DOCTORS
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PERSONALISED TREATMENT
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INDEX

Topic	Page no
1.  What are stem cells ?	3
2.  Cerebral Palsy and Autism	4
3.  Diabetes Mellitus	5
4.  Stroke and Spinal Cord Injury	6
5.  Optic Nerve Atrophy and Huntington's Disease	7
6.  Stem Cell Therapy – Principles	8
7.  Stem cell procedure	9
8.  Stem cell collection and processing	10
9.  Frequently Asked Questions	11
10.  Foetal Stem Cell	13
11.  Patient's Experience	14



STEPPING TOWARDS NEW HORIZON

To all my Patients, Friends and Well-wishers

Stem cell therapy is a science of Regeneration , aimed towards repairing or replacing damaged cells with help of primitive cell of body ,called as “stem cells”. Stem cells has brought a Ray of Hope in millions of patients suffering from intractable diseases like Cerebral Palsy, hemiplegia, paraplegia, muscular dystrophy, diabetes, liver cirrhosis and many intractable diseases.

Chaitanya stem cell centre established two years back to conduct clinical trials as per ICMR Protocol. We believe that all Disabled patients - whoever they are, wherever they are - have the right to a healthy, happy, fulfilling life. We know change is possible.

In the past **18 years**, we have successfully treated more than **18,530 cases**, with many patients experiencing significant improvement.

In **near future**, we wish to treat many other challenging diseases like blood cancer, Thalassemia, sickle cell anemia, autoimmune, genetic disorders, arthritis.

I will be glad to extend support of Chaitanya Family to you all and wish you a prosperous , healthy and blossoming life.

At last “We have to devise means of making known the facts in such a way as to touch the imagination of the world”.

Dr. Anant E. Bagul
M.S. (Ortho.)

 Date : **20th JAN 2011**

WHAT ARE STEM CELLS ?

Stem cells are cells which have the potential to develop into many different or specialized cell types. Stem cells can be thought of as primitive, “unspecialized” cells that are able to divide and become specialized cells of the body such as liver cells, muscle cells, blood cells, and other cells with specific functions. Stem cells are referred to as “undifferentiated” cells because they have not yet committed to a developmental path that will form a specific tissue or organ. The process of changing into a specific cell type is known as differentiation. In some areas of the body, stem cells divide regularly to renew and repair the existing tissue. The bone marrow and gastrointestinal tract are examples areas in which stem cells function to renew and repair tissue.

Stem cells represent an exciting area in medicine because of their potential to **regenerate and repair damaged tissue**.

Sources of Stem cells



Embryonic stem cells

During the early stages of embryonic development the cells remain relatively undifferentiated (immature) and appear to possess the ability to become, or differentiate, into almost any tissue within the body.



Umbilical cord stem cells

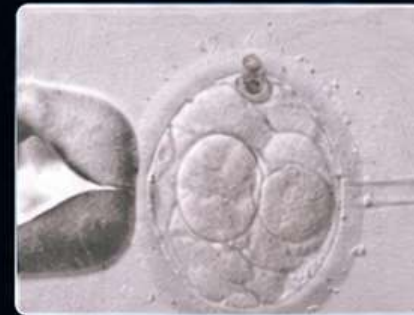
Newborn infants no longer need their umbilical cords, so they have traditionally been discarded as a by-product of the birth process. In recent years, however, the multipotent-stem-cell-rich blood found in the umbilical cord has proven useful in treating the same types of health problems as those treated using bone marrow stem cells and PBSCs. Umbilical cord stem cell transplants are less prone to rejection than either bone marrow or peripheral blood stem cells. This is probably because the cells have not yet developed the features that can be recognized and attacked by the recipient's immune system. Also, because umbilical cord blood lacks well-developed immune cells, there is less chance that the transplanted cells will attack the recipient's body, a problem called graft versus host disease.

Adult stem cells

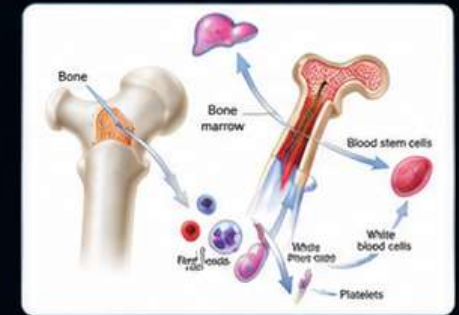
Also known as somatic stem cells and germline (giving rise to gametes) stem cells, they can be found in children, as well as adults. Adult stem cells are found in the bone marrow of adults, which includes femurs, hip, ribs, sternum, and other bones. Cells can be obtained directly by removal from the hip using a needle and syringe, or from the blood following pre-treatment with cytokines, such as G-CSF (granulocyte colony-stimulating factors), that induce cells to be released from the bone marrow compartment.

Chief sources of stem cells

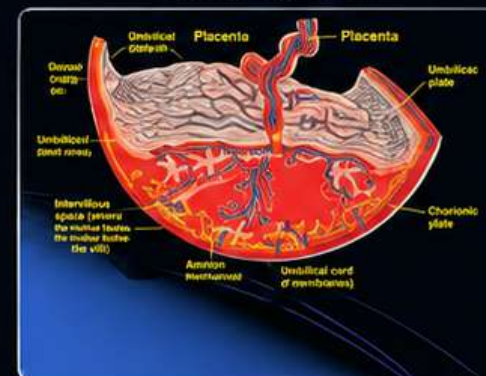
Embryo (Blastocyst)



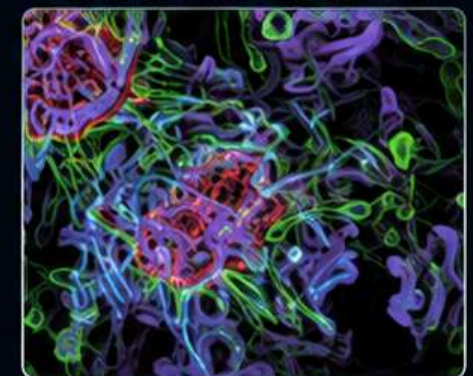
Bone Marrow



Umbilical Cord



Stem Cells (Microscopic View)



CEREBRAL PALSY

Cerebral palsy

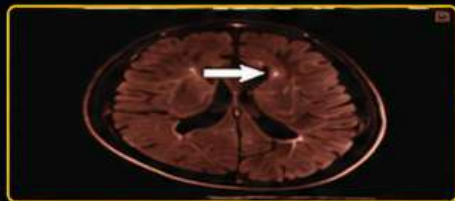
Cerebral palsy (CP) is a group of disorders caused by insult to new-born brain by any cause, affecting body movement, balance, and posture. Loosely translated, cerebral palsy means "brain paralysis." The resulting impairments first appear early in life, usually in infancy or early childhood. Infants with cerebral palsy are usually slow to reach developmental milestones such as rolling over, sitting, crawling, and walking.

Cerebral palsy cannot be cured. Standard treatments include drugs, mechanical aids, physical therapy, behavioral therapy, occupational therapy and speech therapy. All these approaches are focused at helping the patient overcome developmental disabilities or learn new ways to accomplish difficult tasks.

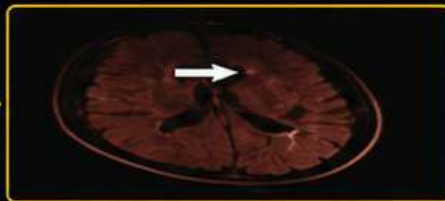
Treatment

Stem cell therapy is a drug-free alternative focused on affecting physical changes in the brain that can improve a child's quality of life. Almost 70% of the cerebral palsy patients treated with stem cells at the Chaitanya Stem Cell Center show improvement. Most cerebral palsy patients are treated by lumbar puncture; injecting the stem cells into the cerebrospinal fluid which transports them up the spinal canal and into the brain. Lumbar puncture is an outpatient procedure that requires patients to stay in Hospital 1 days in every session.

Follow up statistics from 80 cerebral palsy patients completed in Dec 2010 show that close to 68% experienced improvements after stem cell therapy. The type of improvements reported include: decreased spasticity; better coordination; improved motor function, improved posture stability; better cognition resulting in communication improvements; gaining the ability to sit, stand or even walk unassisted, improved speech & I.Q. was observed in 56% of patients. 43% reported a decrease or even absence of epileptic seizures following treatment. About 20% showed improved cognition. Some patients shows significant improvement in their MRI



Before Stem Cell Therapy



After Stem Cell Therapy

AUTISM

Autism

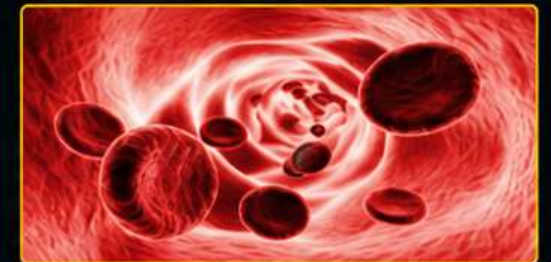
Autistic disorder almost always develops before the age of three and is characterized by impaired verbal and non-verbal communication, social interaction, some form of repetitive and restricted stereotyped interest, ritual, or other behavior. Children with autism often have extreme difficulty developing normal relationships with others. They tend not to share in the interests their peers have. In many cases these children are not able to interpret non-verbal cues of communication like facial expressions. Most people with autism have some impairment in language and may never speak at all.

About 8.7 of every 10,000 children are autistic,

The cause of autism is not known. Low grade Hypoxic damage to cerebral cortex and immunological abnormalities are mainly responsible for Autism. Autism lasts throughout a person's lifetime. There is no cure, but treatment can help. Treatments include behavior and communication therapies and medicines to control symptoms.

Autism patients are treated by lumbar puncture; injecting the stem cells into the cerebrospinal fluid which transports them up the spinal canal and into the brain. Lumbar puncture is an outpatient procedure that requires patients to stay in Hospital 1 day in every session. Overall, patients reported improvements in cognition, language, social contact, eye contact, coordination, motor skills and awareness.

Most Autism patients are treated by Autologous / Cord Blood / Combined Stem Cell Transplantation by local / Intrathecal / Intra arterial route - in 6 cycles Patient need about 16 days stay



DIABETES MELLITUS



If you or a loved one is living with diabetes then you may already be aware its debilitating effects.



Diabetes is often called the “silent killer” because it attacks the body slowly and stealthily. Newly diagnosed adult diabetes patients are usually not overly concerned about it since their symptoms are often no more serious than frequent urination and increased thirst. Many other patients have no symptoms at all.



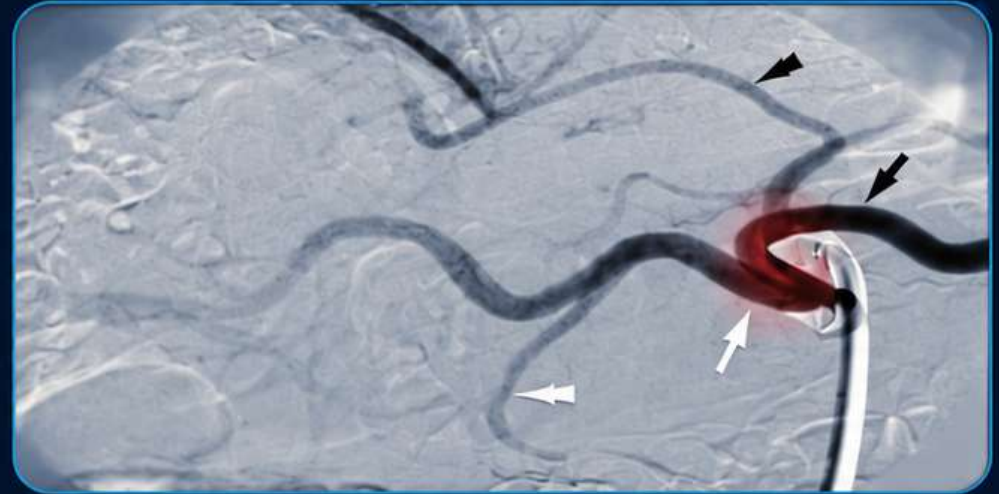
However, as time goes by, the consequences of both types of diabetes become increasingly serious and can lead to death. These include heart disease, eye problems, kidney failure, nerve damage and erectile dysfunction, to name a few. Major contributors to the degenerative effects of diabetes are **hyperglycemia** (high blood sugar) and **hypoglycemic events** (acute low blood sugar). Recent studies suggest that even some oral diabetes medications contribute to heart failure. Thus, it is critical that men and women who are diagnosed with diabetes seek treatment to reduce hyperglycemia and hypoglycemic events that will, in time, trigger these dangerous, degenerative conditions.



Our innovative, autologous (originating from your own body) stem cell therapy for diabetes I and II does just that - **drug free**. It fights diabetes at its roots, reducing hyperglycemia and its associated complications (see above). Recent evidence suggests that it also reduces hypoglycemic (low blood sugar) events that can result in death if not treated promptly.

STEM CELL IMPLANTATION

Diabetes patients are usually treated by injecting the stem cells into the pancreatic artery via catheter. Patients who cannot safely undergo the catheterization procedure may elect to receive the stem cells intravenously.



Patients who cannot be treated by catheter, such as those with kidney problems, are offered an **alternative intravenous stem cell implantation**.



Patients who are suffering from diabetic peripheral neuropathy will receive a portion of their stem cells via **intramuscular injections** into the leg muscles.



We undertake stem cell therapy to achieve following results
Abolition or reduction of insulin requirement by **> 50%** by the end of **6 months** of stem cell therapy.



Reduction in secondary complications like kidney damage, pre-gangrene, eye problem like retinopathy. **F HbA1c** levels as compared to baseline | **Time Frame: 6 months**

STROK (HEMIPLEGIA)

ADULT HEMIPLEGIA



STROKE

Hemiplegia or Stroke is very common neurological disorder characterized by loss of power in upper and lower limb on one side with or without facial paralysis. Its motor paralysis and sensations are normal. Its caused by damage to internal capsule or parietal lobe of Brain due to bleeding or choking of middle cerebral arteries. Brain is deprived of adequate oxygen and causes paralysis on opposite side.,Speaking problems,Aphasia (inability to communicate),Reasoning and memory disturbances, Incontinence,Changes in character and emotions . Strokes are the third leading cause of death.

There are two types of strokes:

- ▶ **Ischemic strokes** occur when the blood supply to the brain is interrupted, by a blood clot / atherosclerotic plaques from the carotid arteries.
- ▶ **Hemorrhagic strokes** occur when there is bleeding in the brain.

The risk of stroke increases with age, high blood pressure, a brain injury.

Is there any treatment?

No standard treatment is aimed at restoring lost brain function. Besides these kinds of treatments, stem cell therapy can be used to minimize the chronic consequences of stroke. At Chaitanya Stem Cell Center, **60-70%** patients showed recovery of power.



**MRI Image
of Blood Clot in
Brain Causing
Hemiplegia**



SPINAL CORD INJURY

The spinal cord is very sensitive to injury. Unlike other parts of your body, the spinal cord does not have the ability to repair itself if it is damaged. A spinal cord injury occurs when there is damage to the spinal cord either from trauma, loss of its normal blood supply, or compression from tumor or infection. There are approximately 10,000 new cases of spinal cord injury each year in the India. Specifically, 80% of spinal cord injuries occur in males, Most injuries occur in patients 16-30 years of age.

Spinal cord injuries are described as either complete or incomplete. In a complete spinal cord injury there is complete loss of sensation and muscle function in the body below the level of the injury. In an incomplete spinal cord injury there is some remaining function below the level of the injury. In most cases both sides of the body are affected equally.

An injury to the upper portion of the spinal cord in the neck can cause quadriplegia-paralysis of both arms and both legs. If the injury to the spinal cord occurs lower in the back it can cause paraplegia-paralysis of both legs only

The Chaitanya Stem Cell Center's spinal cord injury treatment is unique because it focuses on repairing tissue damage and restoring function to improve each patient's quality of life.



Patients are treated by injecting the stem cells into the cerebrospinal fluid which flows within the spinal canal. This procedure is called **intrathecal injection** or lumbar puncture.



Almost **60%** of the spinal cord injury patients treated with stem cells at the Chaitanya stem cell-Center show improvement.



The entire treatment consists of **three steps**: bone marrow collection, laboratory processing and stem cell implantation.



OPTIC NERVE ATROPHY



Optic nerve atrophy is damage to the optic nerve. Optic atrophy is the degeneration of the fibers of the optic nerve. The optic nerve carries images of object from the eye to the brain.

Causes



Optic nerve atrophy is caused by many diseases like Diabetes, Retinitis Pigmentosa, Macular degeneration, Glaucoma, Trauma and many other cause, the condition can be caused by diseases of the brain and central nervous system, such as cranial arteritis (sometimes called temporal arteritis), multiple sclerosis, brain tumor, and stroke. Retinitis pigmentosa. This is a hereditary ocular disorder.

Conventional Treatment:



Unfortunately, there is no effective treatment for optic atrophy. Once the nerve fibers in the optic nerve are lost they never heal or grow back.

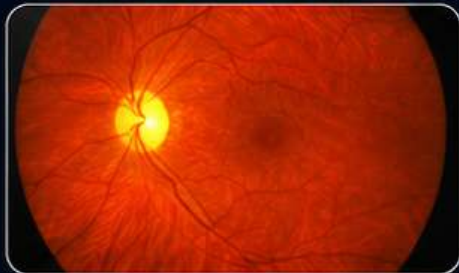
Chaitanya stem cell Treatment



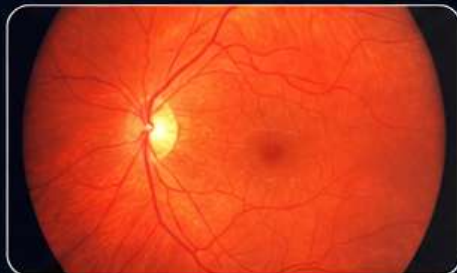
Chaitanya Stem Cell Centre is a part of Chaitanya Hospital an ISO 9001/2008 accredited organization. More than 88 cases are already treated by Stem Cells with clinical improvement in around 70% cases. Stem cells are unique and have the potential to develop into many different cell types in the body including brain cells. They also have the ability to produce more stem cells.



Patients are treated by implanting the stem cells behind the eye via **retrobulbar injection** under local anesthesia. These re-injected stem cells have the potential to transform into multiple types of cells and are capable of regenerating damaged tissue.



Before Treatment



After Stem Cell Treatment

HUNTINGTON'S DISEASE



Huntington's disease (HD) is a fatal hereditary disease that destroys neurons in areas of the brain involved in movement, intellect, and emotions. The course of Huntington's is characterized by jerking uncontrollable movement of the limbs, trunk, and face (chorea); progressive loss of mental abilities; and the development of psychiatric problems.

Nerve cells become damaged, causing various parts of the brain to deteriorate. The disease affects movement, behavior and cognition - the affected individuals' abilities to walk, think, reason and talk are gradually eroded to such a point that they eventually become entirely reliant on other people for their care. Huntington's disease has a major emotional, mental, social and economic impact on the lives of patients, as well as their families. The disease is caused by an autosomal dominant mutation on either of an individual's two copies of a gene called Huntingtin.

In this there is a Degeneration of the caudate and the putamen (striatum) - There is also neuronal loss and astrogliosis, as well as loss of medium spiny neurons, a GABAergic result. Intracellular inclusions that stain for ubiquitin and huntingtin can be seen, as well as huntingtin in cortical neurites. Genetically, huntingtin is found on chromosome 4, as are CAG repeats. There is no cure. Medicines can help manage some of the symptoms, but cannot slow down or stop the disease.

Treatment



Chaitanya Stem Cell Centre is a part of Chaitanya Hospital an ISO 9001/2008 accredited organization. More than 88 cases are already treated by Stem Cells with clinical improvement in around 70% cases.



We use cells of highest purity, viability and integrity from world quality laboratory, which complies with international standards. As it has been proved that more transplantation cycles gives better and better results.



As it is genetic disorder we prefer cord tissue derived mesenchymal stem cells only. There is no use of autologous stem cells. In this we give high dose of cord stem cells intrathecally in four to six divided doses. For the treatment, patient is required to stay for one day per session. The interval between two sessions varies from seven to thirty days as per the doctor's discretion. The number of sessions may vary from patient to patient.

STEM CELL THERAPY - PRINCIPLES



Cell-based therapy is an empirical therapy. Stem cell therapy is the use of adult stem cells to treat more than **75** intractable diseases.



Stem cell can be divided in **three types**.



Autologous stem cell therapy- which includes use of patients his own stem cells obtained from blood, bone marrow etc.



Cord Stem Cell Therapy - Cord from Umbilical vein contains abundant Stem Cells. These Stem Cells can. be used after matching. CMSC are potent having more regenerative power than adult mesenchymal cells

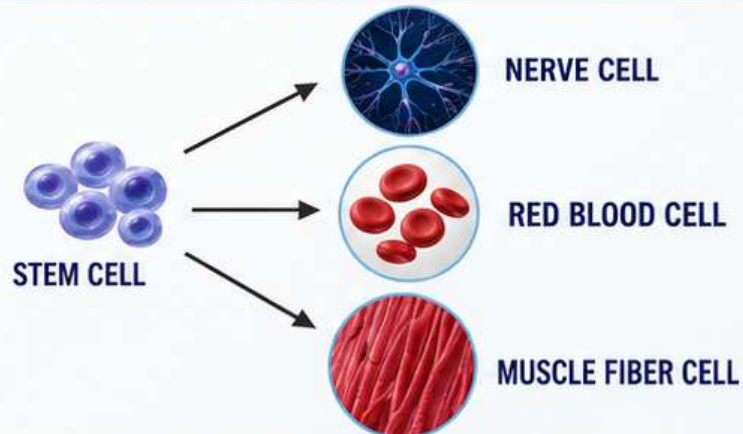


Embryonic stem cell therapy- Embryonic stem cells are derived from inner cell mass of blastocyst. They fertilize and divide into different cells. But for obtaining these stem cells the embryo has to be destroyed in the laboratory which is morally and legally is unacceptable in India.



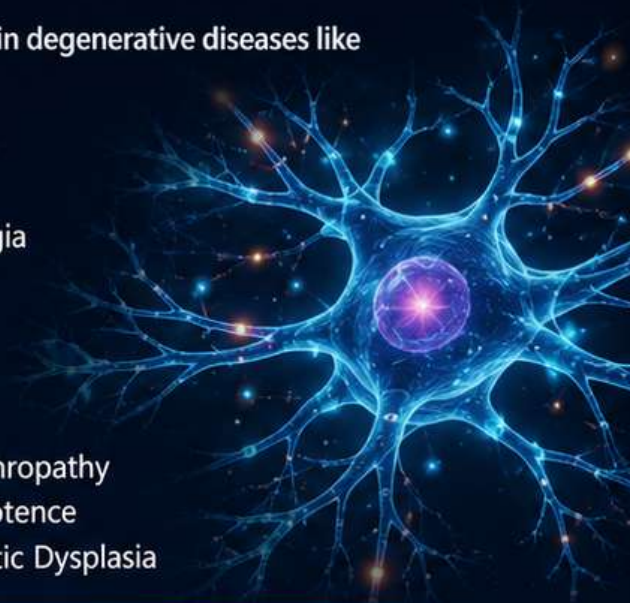
At Chaitanya Stem Cell Center , we use **Autologous or Matched cord blood Stem Cell** during treatment.

STEM CELLS CAN BECOME MANY TYPES OF CELLS



Stem cell therapy is useful in certain degenerative diseases like

- ☒ Cerebral palsy
- ☒ Mental retardation / Autism
- ☒ Diabetes Mellitus I & II
- ☒ Spinal Cord Injury, Paraplegia
- ☒ Hemiplegia / Stroke
- ☒ Alzheimer's
- ☒ Multiple sclerosis
- ☒ Transverse myelitis
- ☒ Diabetic Neuropathy, Nephropathy
- ☒ Diabetic Retinopathy, Impotence
- ☒ Blood Cancer & Myeloblastic Dysplasia



There are high hopes from stem cell therapy. Hence there is much on going research into various types of stem cells, their potential use and their therapeutic applications.

MATURE STEM CELLS

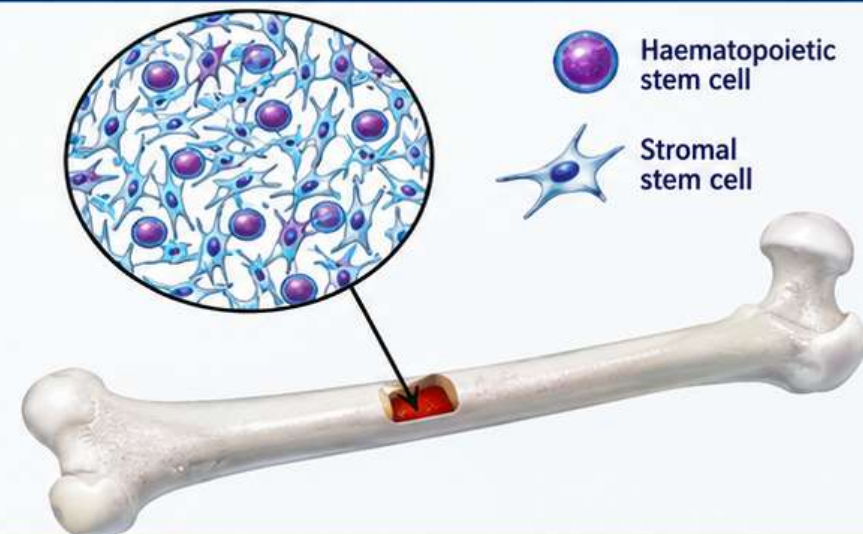


Illustration by **Cell Imaging Core** of the Center for Reproductive Sciences.

STEM CELL THERAPY - PROCEDURE

The entire procedure consists of the following phases



Three cycle of autologous and / or cord blood stem cells needs **16 days** treatment. Multiple cycles may be needed in some patients.

- A. Thorough physical and blood examination** will be done by panel of consultants. You will be asked to get PET scan / MRI to check eligibility for the therapy.
- B. Stem cell collection** will be done next day. The Chaitanya stem Cell- procedure employs autologous adult stem cells or cord stem cells. For autologous SCT These cells are collected from your own bone marrow, Sample will be send to laboratory where the stem cells will be isolated from bone and processing, isolation and quality checking of the cell will be done. Mesenchymal stem cells are cultivated & multiplied in laboratory 10 times if needed.
- C. First dose** of Isolated stem cell will be given by intrathecal / intralesional / intra arterial injection. You will be discharged on next day. You will need regular follow-up as recommended by us. We give special cocktail injections to potentiate stem cells activity. Patient is given 100% oxygen to improve stem cell potential
- D. Second & Third dose** of Stem Cell Injection as per our instruction. You will be subjected to repeated PET or MRI scan to monitor progress of stem cell implantation. However the treatment pattern may change as per patients status and disease. We give special cocktail injections to potentiate stem cells activity. Patient is given 100% oxygen.
- E. For cord stem cell** after matching with patients blood will be given in three doses within 16 days.
- F. Combined Therapy** like both bone marrow SCT & cord stem cell will be given in three cycles in 16 days.
- G. In Diabetic patients**, we will given stem cell either through angiographically in pancreatic artery or through intravenous route in three cycles.



Fig 1: Local anaesthetic Injection / General Anaesthesia



Fig 2: Palpation of iliac crest

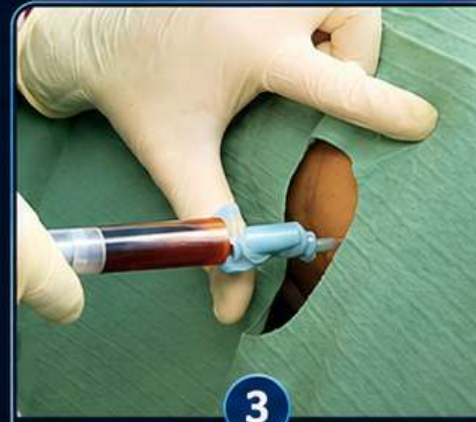


Fig 3: Inserting needle in iliac crest

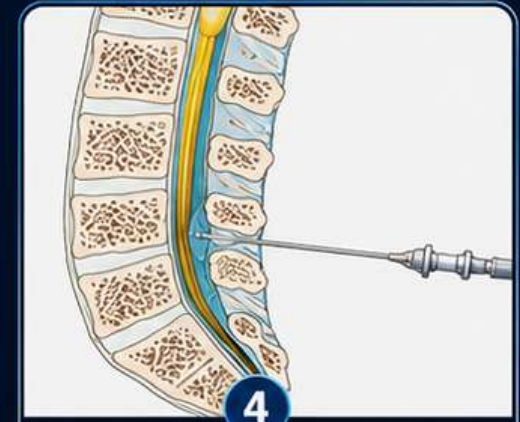


Fig 4: Intrathecal implantation of stem cells

STEM CELL COLLECTION AND PROCESSING



Prior to scheduling bone marrow collection, you will be asked to fill out the patient consent form. This form grants explicit written permission for bone marrow collection & stem cells therapy.



You must discontinue using any blood diluting medications at least **10 days** before your collection date by consulting your physician.



On collection day, we'll have everything prepared to begin collection and make it comfortable for you. Physician will collect approximately **100 ml** of bone marrow from your waist bone. Stem cell collection is performed as an in-patient procedure under local / general anaesthesia in sterile conditions. It is comparable in pain to a dentist visit. Afterwards, the collection site might look like a "blue spot" and be a bit painful for **3 – 4 days**.



For all neurological disorders stem cells are introduced either in cerebrospinal fluid via lumbar puncture or intrathecal. Since the cerebrospinal fluid circulates, stem cells are transported directly to the **damaged tissue in the brain or the spinal cord**.



As with any minimally invasive intervention, intrathecal stem cell implantation carries a very small risk of infection. We minimize this risk by working in a sterile environment and by prescribing prophylactic antibiotics to you. If there are no complications, you can return home after **2 days**



For the treatment patient needs 2 - 3 days admission during which his examinations and various investigations are conducted as per the International Council – Stem Cell Research Therapy protocol(IC-SCRT). This therapy is still experimental & do not assure any improvement or cure in all patients. However **60 to 70%** Patients shows clinical improvement as per our experience.



During processing the stem cells are separated according to International Quality Control protocol. Improvement is evident from **8 weeks** onwards to **1 year** as stated according to the previous experiences and studies. As per ICMR protocol we will give **three doses** of stem cells in various cycles.

ADVANTAGE AND DISADVANTAGE OF STEM CELL



Treatment advantages:

- Simple
- Less invasive than surgery



Treatment disadvantages:

- Less precise application



Possible Adverse Events from the treatment

After the procedure, you might experience the adverse events. These events can be intense but usually subside within two or three days.

- Nausea, vomiting
- Headache
- Backache and/or Leg pain
- However no long term adverse effects are noted anywhere in the world following autologous stem cell Transplantation.



Follow-up

Once you have returned home, you are requested to visit our center at least once a month to report any improvement or deterioration in your health. You will be subjected to various radiological, haematological & scan test from time to time to check any improvement or deterioration in your health.

STEM CELL PROCESSING





Various cycles of Stem Cell Transplantation

3 cycles of autologous bone marrow transplantation -



Day 1 - Haematological and serological investigation and other investigations and thorough checking by 4 consultant doctors & Bone marrow Harvesting



Day 4 - Autologous intrathecal transplantation First cycle



Day 9 - Autologous intrathecal transplantation Second cycle



Day 14 - Autologous intrathecal transplantation Third cycle

3 cycles of Cord Stem Cell transplantation -



Day 1 - Haematological and serological investigation and other investigations and thorough checking



Day 4 - First cycle of cord stem cell Transplantation



Day 9 - Second cycle of cord stem cell Transplantation



Day 14 - Third cycle of cord stem cell Transplantation



Both cord blood stem cell and Autologous Stem Cell Transplantation are combined in many patients as per condition and various factor.



All Therapy can be finished within **16 Days** admission in overseas patients. For details of charges , please contact Chaitanya Stem Cell Center on **+91 90 1111 1222**.



You may be having many questions on stem cells and the therapy. You will find answers to most of your questions in this brochure. However even after reading the brochure if you have any queries or you feel like discussing this topic in detail with our experts; please do not hesitate to contact us. We have provided with our contact details on the back page of this brochure.



Scientific
Process



Safe &
Secure



Regenerative
Power



Better
Quality of Life

FREQUENTLY ASKED QUESTIONS

Q.1

Q.1. What are stem cells?

Stem cells are the foundation cells for every organ, tissue and every cell of body. They have capability to differentiate along cell line or into any type of cell in body. They divide and multiply within the body. The first stem cells originate within the developing embryo.

Q.2

Q.2 What are the sources of stem cells?

Adult stem cells: involves use of stem cell derived from bone marrow, peripheral blood and some tissues.

Cord Blood Stem Cells - involves use of stem cell derived from Umbilical Cord at the time of birth.

Embryonic stem cells: are derived from inner cell mass of blastocyst. They fertilize and divide into different cells.

Q.3

Q.3 What is stem cell therapy?

Stem cell therapy is the use of adult stem cells to treat certain diseases. The stem cells are the patients own blood bone marrow and /fat. Stem cells are progenitor cells that lead to creation of new cells. They are generative cells.

Q.4

Q.4 What conditions are being treated by stem cell therapy?

Stem cell therapy is useful in certain diseases like

- | | |
|---|---|
| ☒ Cerebral palsy, Autism | ☒ Transverse myelitis |
| ☒ Stroke | ☒ Diabetic Neuropathy, Nephropathy |
| ☒ Mental retardation, Alzheimer's | ☒ Diabetic Retinopathy, Impotence |
| ☒ Spinal Cord Injury & Paraplegia | ☒ Blood Cancer & Myeloblastic Dysplasia |
| ☒ Multiple sclerosis | |

STEM CELL PROCESSING



Fig 1 : Local anaesthetic Injection / General Anaesthesia



Fig 2 : Palpation of iliac crest



Fig 3 : Inserting needle in iliac crest



Fig 4 : Intrathecal implantation of stem cells

FOETAL STEM CELLS

Foetal Stem Cells are very primitive and Immature Cells derived from new born foetal umbilical cord of genetically healthy baby . It holds more power towards regeneration than Adult Stem Cell..These cells are obtained from Whartons Jelly of Umbilical Cord of foetus. It do not have surface antigen and hence don't have Graft verses host Rejection Interaction. These cells are tested on 20 parameter to ensure that they do not have any infection, like HIV, Hepatitis and Other communicable Diseases. These Cells are very useful in Genetic Disorders, where chromosomes are defective, in diseases like DMD, Spino-cerebellar Ataxia, Huntingtons Diseases, Diabetes Mellitus, and various rare genetic abnormalities.

2) Are Foetal stem cells different from other stem cells?

Yes, Foetal stem cells are biologically younger and have unique qualities and advantages compared to other stem cell sources like bone marrow:

- There is less risk of complications
- They are immediately available, and early treatment can minimize disease progression.
- Younger than other tissue of patients, so long lasting
- Available easily.

3) Can Foetal Stem cell cure Autosomal Disease ?

In Autoimmune diseases absence of gene leads to lack of these hormones or chemical which causes neuronal damage or other tissue damage. Stem cells with normal genetic composition, have ability to produce these deficient chemical, hence they can be answer to genetic disorders, which are usually progressives and life threatening

4) What are the tests performed before cord stem cell transfusion?

Microbiological Tests:- They are tested negative for HIV I&II, HCV, CMV IgG/IgM, Syphilis, Hepatitis B and bacterial and fungal contamination.

Morphology testing:- CD31-, vWF , CD29 +, CD44: +, Cd14:, SSEA4: + HLA DR :, HLA ABC: +, Cd73 : + ,CD105 :+,Cd45

5) Is there any requirement of cross matching (HLA or Blood group) before cord stem cell transfusion?

As these are very premature cells and does not contain any surface antigen. So these cell does not produce any Severe reaction in recipient.



Q.5 What is the procedure for stem cell therapy?

During the stem cell therapy, the stem cells are acquired by extraction of the bone marrow. The extracted material is sent to stem cell based biological laboratory. During processing the stem cells are separated according to the International Quality Control protocol. These stem cells are introduced in the body to reach the damaged part and work accordingly.



Q.6 What investigations are to be performed before the therapy?

A few primary blood investigations along with some Radiological investigations, MRI Scan & Pet Scan according to the diseases are conducted. These help to understand the severity of the disease and provide detailed information.



Q.7 How long do the patient need to stay at the clinic?

During the therapy the patient needs to stay at the hospital for about 16 days for all three cycle completion. However the period of stay depends on the condition of the patient and severity of the disease.



Q.8 What is the success rate of Stem Cell Therapy ?

This is an experimental therapy under ICMR and NAC guidelines with expected results up to 50 – 70 %. However in few cases may not show desired results. Efficacy of the treatment varies from patient to patient depending on the nature and the type of disease.



Q.9 How many Cycles are needed/ given?

Generally 3 cycle are given within 16 days of your stay given. If more are needed the doctors will address you about it during treatment depending on disease condition and further progress.



Q.10 Can the other treatments be taken at the same time?

Typically will review what other medication the patient is already on, Medical decision about further medical treatment is made on an individual basis. Kindly intimate status of your treatment to doctor.



Q.11 Are there any known side effects of the therapy?

Doctors who have treated patients have not reported any side effects other than nausea, headache, fever due to meningeal irritation.



Q.12 Is any special diet required?

No.



Q.13 Are any nutritional supplements/ medications taken along with stem cell treatment?

Your treating physician/doctor may prescribe nutritional supplements that may enhance the benefits of stem cell therapy. Such prescriptions will be made on an individual basis, depending on the patients particular evaluation.



Q.14 What is cocktail therapy used during stem cell therapy ?

Stem cells will work better with help of few stimulating & potentiating chemicals & 100% oxygen. We use this cocktail therapy to improve clinical results.



Q.15 Can I get detailed information on Internet?

You can get the information on Chaitanya hospital Website:

www.edisability.org | www.stemcure.co.in | www.chaitanyastemcell.com

Similarly on internet the info is available on www.google.com - search for "stem cell therapy"

You can also see videos of a patients treated by stem cell therapy on above sites.



Q.16 What is the estimated cost for the treatment?

This therapy is provided for about 20,000 dollars in foreign countries. However CHAITANYA HOSPITAL provides this therapy for a very reasonable cost. We follow all the international Quality Control protocols and rules during the therapy.



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International
Quality Standards



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Patient Centric
Care

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Spinal Cord Injury



Mr. Girishchandra

Condition before the treatment : •

Mr. Girishchandra, 47 years young man meet with a road traffic accident approximately around one year back, which caused spinal cord injury leading to Quadriplegia his life causing disabled. There was loss of bowel & bladder control. He also had occasional trembling in his left hands, as level is C6. He had poor grip and release in both hands. He had limited movements of his both hands. When all the doors were closed, he found a little light of hope in Stem cell therapy.

Condition after the treatment : •

- ✓ After just 30 days Clinical improvement was much better observed after the stem cell therapy. The first change noticed was the reduced tightness and stiffness in his muscles and joints. As the time when, his sensory level increased considerably. His power was also improved. After one month with trunk control he was able to balance his body weight while sitting. After 3 months he recovered his full sensation of bladder & bowel. Now after 6 months Mr. Girishchandra can walk without support with full recovery of In this way Stem cell Therapy improved the quality of life.



Mr. Sampat

Condition before the treatment : •

Mr. Pandit, 37 years young man felled from tree approximately around six months back which caused dorsal spinal cord injury leading to paraplegia. There was total loss of power & sensation below umbilicus. There was Loss of bowel & bladder control. Developed bed sores, urinary tract infection due to long time bed ridden.

Condition after the treatment : •

- ✓ After just 30 days Clinical, improvement was much better after the stem cell therapy. The first change noticed flickering movements in his muscles and joints. After 2 months, his sensory level increased considerably. His power also improved so he was able to balance his body weight while sitting. After 3 months, he recovered his full sensation of bladder & bowel now after 6 months He can walk with support.



Cerebral Palsy



Mast. Ritesh

Condition before the treatment : •

Ritesh was unable to sit or stand without support due to severe tightness and rigidity in both his upper and lower limbs. He had slurred speech which was very incomprehensible and was only partly understood by his parents. Loss of trunk control made him bedridden for all these years. He had a totally dependent and miserable life.

Condition after the treatment : •

- ✓ Four weeks after the treatment, his spasticity in both upper and lower limbs has reduced considerably. His trunk control has improved. His words are much easily understood. After 6 months, he can now stand and walk without support. His I.Q. has increased, now he can answer questions asked. Stem Cell Therapy is ray of hope in the dark and handicapped life of Cerebral Palsy and mentally retarded patients.



Mr. Sainath

Condition before the treatment : •

Sainath, a nineteen year old boy got admitted as a known case of CP. Due to severe tightness and rigidity in both his upper and lower limbs he was not able to walk properly. There was Loss of trunk control. There was mild slurring of speech. All these disorders made his and his parents life miserable and painful.

Condition after the treatment : •

- ✓ Sainath as discussed above underwent stem cell therapy. The first change noticed was the reduced tightness and stiffness in his muscles and joints. His muscle strength increased considerably. His trunk control was improved so walk without support. This has helped in developing a new ray of hope to live life happily.

Patient's Experience

Stroke (Hemiplegia)



Mr. Pandurang

Condition before the treatment :

Mr. Pandurang, a known case of left sided hemiplegia. Due to tightness and rigidity in his upper and lower left limbs he was not able to walk. There was Loss of trunk control. He could not stand or walk straight. He also had occasional trembling in his left hands and legs He had poor grip and release in left hands. He had limited movements of his left hand.

Condition after the treatment :

Mr. Pandurang underwent stem cell therapy.. The first change noticed was the reduced tightness and stiffness in his muscles and joints. As the time increased considerably, His trunk control was improved. This made him balance his body weight while walking. His grip has improved a lot. His capacity to move his left hands has improved This has helped in developing a new ray of hope in his life.

Diabetes Mellitus



Dr. Nag

Condition before the treatment :

Dr. Nag is a case of Type I Diabetes Mellitus with Hypertension. He required insulin dose around 60 units' daily and taken daily four tablets to control his BP. His cholesterol level also raised to higher side. He is a professor of anesthesia from AIIMS practicing in gulf country.

Condition after the treatment :

He underwent stem cell therapy for all his above problem. After one month there was significant improvement in his blood sugar level and reduction of insulin requirement.

With control of blood sugar level his symptoms like polyuria ,weakness ,fatigue improved .Now his cholesterol is also under control and he requires only one tablet for his hypertension .He is very satisfied with stem cell therapy that works to improve his quality of life, His confidence level is improving, This has helped in developing a new ray of hope in his life

Cerebral Palsy



Mr. Tanmay

Condition before the treatment :

Tanmay is a known case of cerebral palsy this resulted into multiple contractures and deformities along with very poor IQ level. Even at the age of 14 years he was unable to stand and sit even with support. His speech was slurred and was understood only by his parents. he had truckle ataxia which made him difficult to stand, sit or walk

Condition after the treatment :

He as discussed above underwent stem cell therapy. In just few days of stem cell therapy there was reduced tightness and stiffness in his muscles and joints. he can now walk straight using a walker for long time without getting tired. His tremors have reduced to great extent. Slurring of speech has improved too greatly. This has helped in developing a new ray of hope to live life happily.

Huntington's Disease



Dr. Nair

Condition before the treatment :

Dr. Nair suffering from Huntington's disease, due to which he had jerking uncontrollable movement of the limbs, trunk, and face (chorea); loss of mental abilities; and psychiatric problems, difficulty in speech. All above symptoms were progressive day by day, Due to which he had a major emotional, mental, social and economic impact on himself, as well as on his family.

Condition after the treatment :

After cord tissue stem cell transplantation, he got improvement within one month like decreased jerky movements, improvement in speech., His mental ability also improved, so regain his confidence level.

Patient's Experience

Cerebral Palsy with Mental Retardation



Mr. Abraham

Condition before the treatment :

Abraham is a cerebral palsy child, with multiple deformities and contractures in his upper and lower limb. Trunk control was absent. Due to severe tightness in his lower limbs, he was not able to stand or walk. He had tightness in his hands.. Due to these multiple deformities in his limbs he had been bed ridden for all these years. He had severe slurring of speech.

Condition after the treatment :

After just a few weeks of stem cell therapy Abraham started showing development pattern. This made him balance his body weight while walking. He can now walk straight using a walker. His speech has improved too greatly. His capacity to move both hands has improved. He can now lift objects. His confidence level is improving. He now feels like taking part in various activities. after 6 months Mr Girishchandra can walk without support with full recovery of In this way Stem cell Therapy improved the quality of life .



Miss. Shabina

Condition before the treatment :

Miss Sabina is 30 years old now and suffered from a case of cerebral palsy with mild mental retardation.. Along with this she had abnormal movements and had slurred speech. Miss Sabina was also unable to hold her neck properly and used to get irritated immediately. She was also not able to walk steadily and properly

Condition after the treatment :

After the treatment Miss Sabina has better understanding and started responding to questions. Her standing improved to a great extent. She had started getting a sound sleep and her look also improved a lot. Her walking and muscle coordination was improved and was able to speak in one sentence. This was a positive start in her life.

Wilsons Disease



Miss. Ruchika

Condition before the treatment :

Ruchika is a case of Wilson's disease tightness in her left upper and lower limb to such an extent that her daily activities like walking, standing without support stopped. She also had difficulty in mastication.. She lost her grip and release in both hands. Over the passing years her condition went on deteriorating. She tried for treatment from many places but there was no improvement in her condition. Her parents had lost all the hope.

Condition after the treatment :

Ruchika underwent stem cell therapy on a trial basis. Being a progressive disease, there were minimum chances of her getting improvement. In just 2 weeks of stem cell therapy Ruchika felt her reduced tightness and stiffness in her muscles and joints. Her muscle strength increased considerably. Her trunk control started improving. Her tremors have reduced to great extent. She has also developed confidence and has become more confident and interactive as noticed by her parents.

Muscular Dystrophy



Mr. Dinesh

Condition before the treatment :

Dinesh suffering from muscular dystrophy (DMD) is a genetic disorder. He had difficulty in walking, due to progressive weakness in all limbs. His CPK level was more than 20,000 IU. His parents know the prognosis of disease so willing to undergo stem cell therapy.

Condition after the treatment :

There was remarkable improvement in power of both limbs His cpk level reduced upto 1000 IU in three months. His gait pattern also improved.

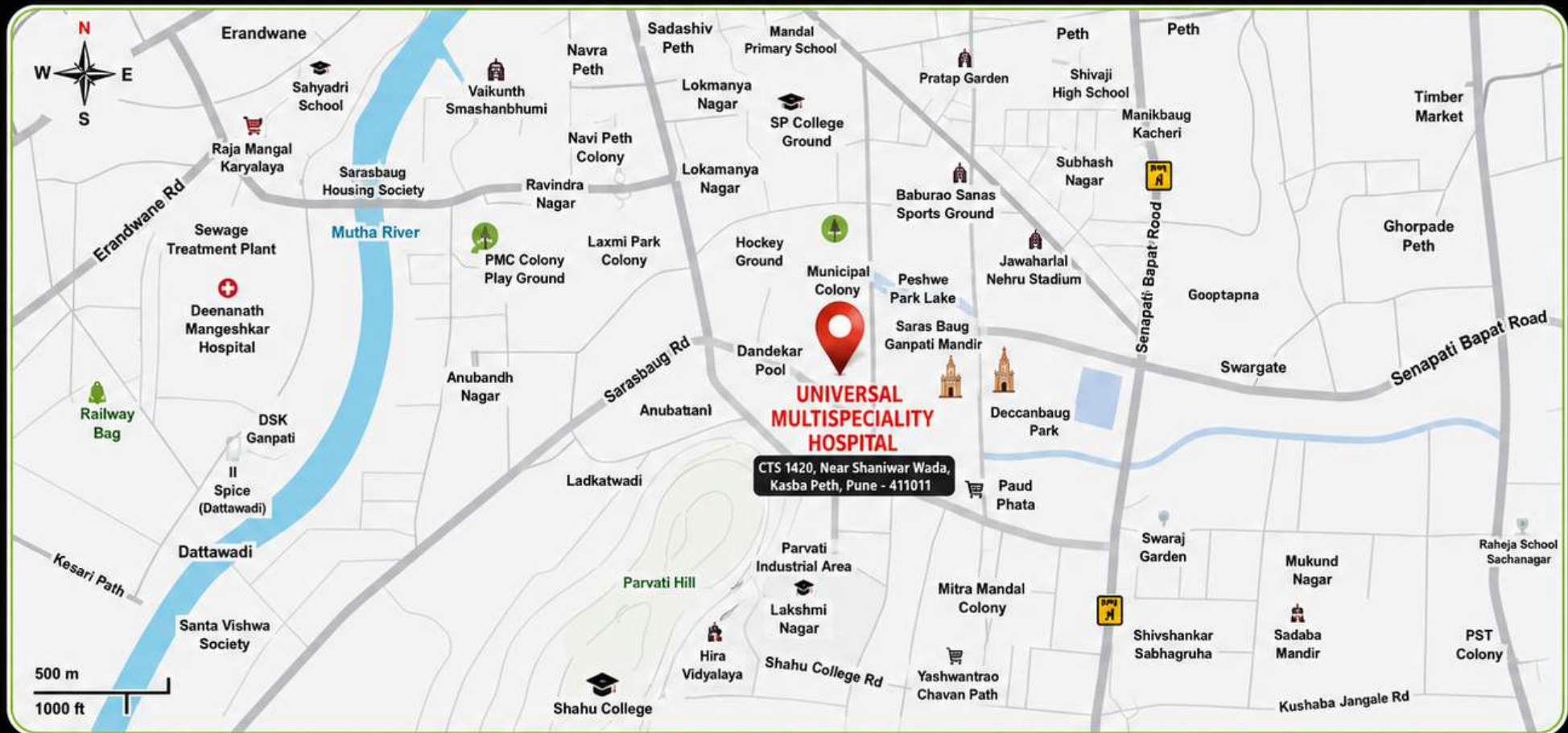
: हिंदी भाषिकों के जानकारी के लिये संपर्क पता :

यूनिवर्सल मल्टीस्पेशलिटी हॉस्पिटल

CTS 1420, Near Shaniwar Wada, Kasba Peth, Pune - 411011.

फोन : ९०९९९ ९९२२२

• LOCATION MAP •



UNIVERSAL
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