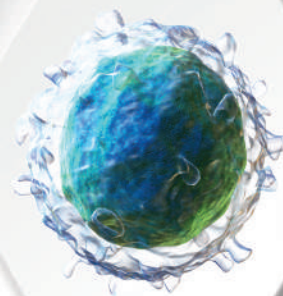




Advancells
GROUP
Shaping the Future

Cerebral Palsy

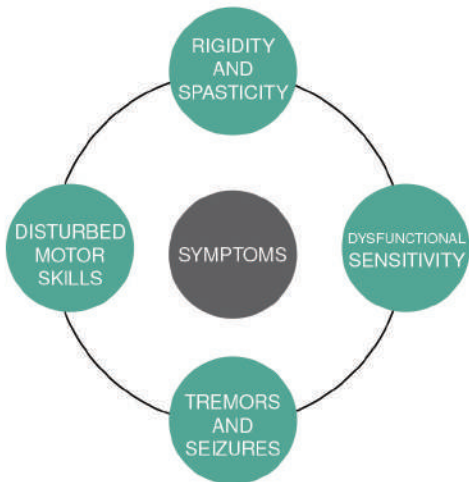
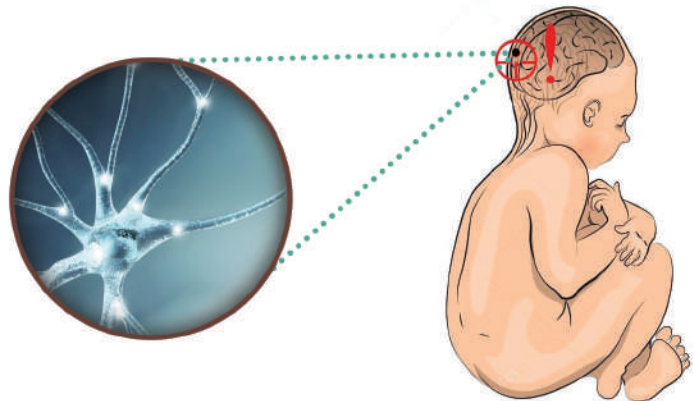


What is Cerebral Palsy?

■ Neurodegenerative disorder with decreased motor response.

EVERY
2.5 IN 1000

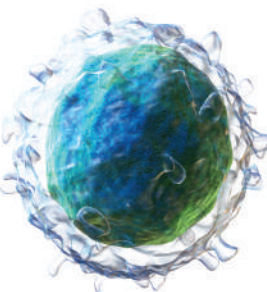
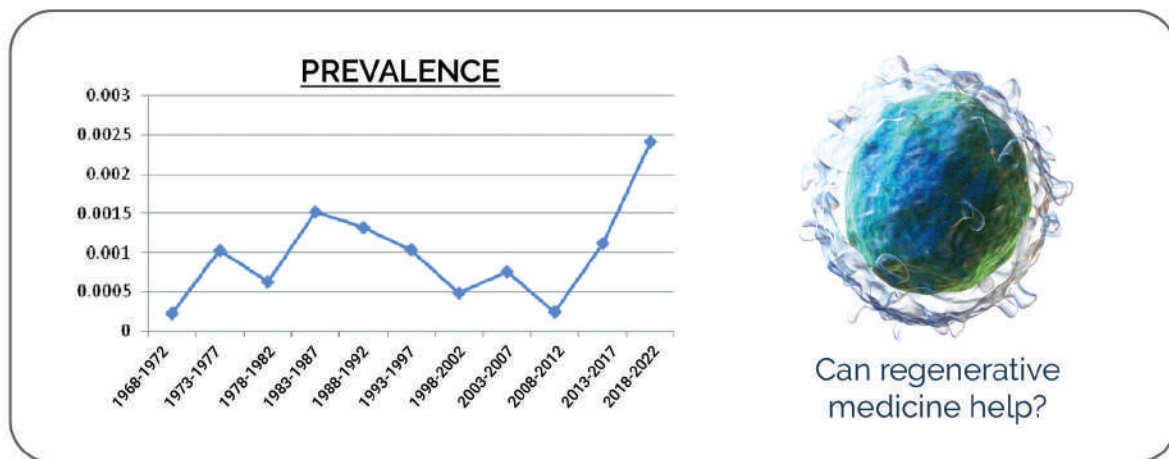
The incidence of Cerebral Palsy is approximately 2.5 for every 1000 live births and we can reduce this number by supporting and encouraging more therapeutic research for Cerebral Palsy.



Cerebral Palsy is a chronic childhood motor neuron disorder that results in cerebral cortical and sub-cortical damage of the brain. Children affected with cerebral palsy suffer from several neurodevelopmental and epileptic disorders. Premature birth is the most common risk factor for cerebral palsy.

The treatment regime for cerebral palsy is multimodal and often involves physical and occupational therapy, social skill training and medication for seizure, depression, and pain.

Although there is no specific cure for cerebral palsy to prevent the associated neuron damage, with recent scientific advances and research in stem cell therapeutics, cerebral palsy has a new hope in the form of Regenerative Medicine.



Can regenerative medicine help?

* As per the new figures disclosed by 2018

STEM CELL *Treatment for* **Cerebral Palsy**

- Reduced muscle tremors.
- Reduced muscle rigidity.
- Improved motor skills and cognition.
- Improved learning abilities.
- Improved swallowing and speech development

Regenerative Medicine

Stem cells have the unique potential to undergo self-renewal as well as differentiate into cells of neuronal origin in the body upon natural.



What can you expect?

Majority of the patients treated by us have reported a good control over muscle functions and perception. Further to which, our data suggests that post stem cell therapy, people experience less tremor, reduced drooling, improved cognition and reduced risk of seizures.

Although type and extent of improvement is patient specific, some of the common benefits that you can expect after stem cells treatment for Cerebral Palsy are:

- Improved fine motor skills.
- Decreased muscle tremors and spasticity.
- Decreased muscle rigidity.
- Improved control over speech and drooling .
- Improved learning abilities and focus.

Why Should YOU choose Advancells?

01 AUTOMATED and CLOSED System

At Advancells, stem cell therapy is performed under the supervision of medical experts in a multi speciality hospital and cells are processed in the state-of-the-art GMP compliant laboratory i.e. fully functional with automated equipments.



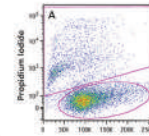
02 SAFE Treatment Procedure

The procedure is completely safe and has not detected any adverse events throughout the globe.



03 HIGH Concentration Enriched with MULTIPLE Cell Population

The treatment procedure is performed using a high concentration of viable cells with multiple cell population, created from a very small portion of the tissue.



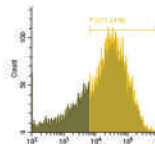
04 HIGH Quality of Cells

At Advancells, we ensure that cells are of best quality; and hence we perform a thorough **Quality Assessment** by experienced scientists. We provide a detailed certificate of analysis to each patient further authenticating the cell quantity and viability.



05 Disease-Specific MARKER Analysis

Our clinical research scientists do a thorough disease-specific marker analysis both **pre and post-treatment** to ensure subjective reduced expression levels of the same, thus showing evidence based assesment of improvement in each case.

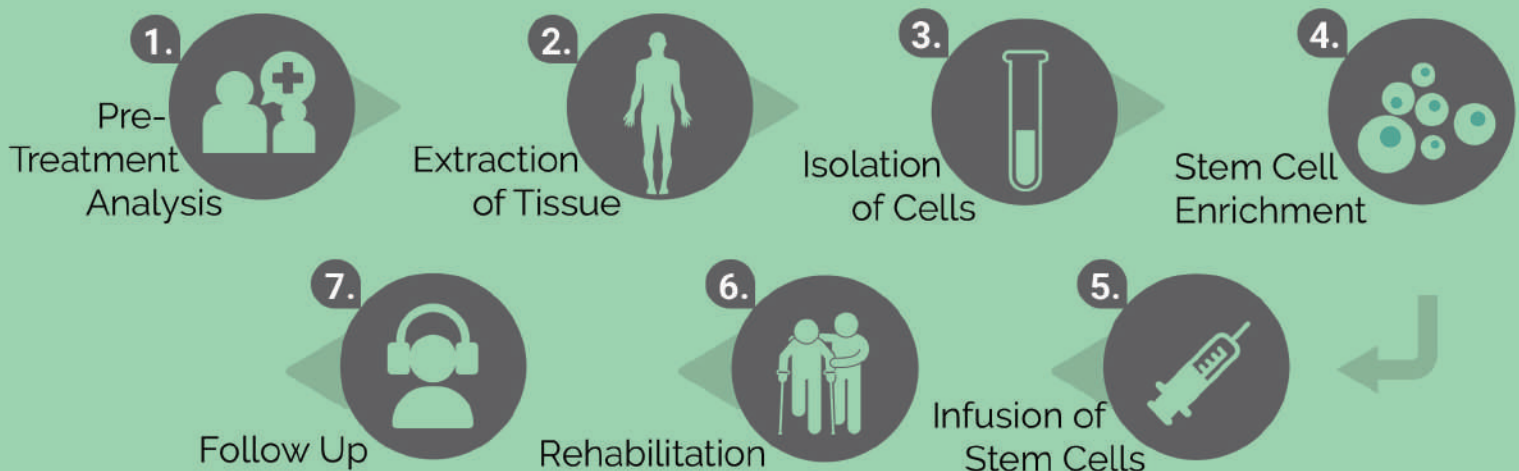


Easy Process

Establishment of day care procedure

Once you are enrolled with us for the treatment, we will intimate you regarding the date and time of the treatment. The entire treatment plan will be divided into seven parts:

■ The Whole Process is as simple as 1,2,3,4.. .



Cell Therapy Management

PRE-TREATMENT procedure

Complete assistance will be given to the patient in all pre treatment procedures such as consultation, hospitalization (If required), Assessment.

■ Eligibility Criteria

Pre-Treatment Assessment

- Routine Blood Test
- Routine Urine Analysis
- Infectious Disease Testing
- Physical Examination
- X-Ray

Pre-Op Procedure

- MRI
- CT Scan
- Neurophysiology
- Medical Neurological Reports
- Medical History

EXTRACTION of tissue sources

Generally the entire procedure takes around 7-8 hrs including 1-2 hrs of source aspiration, 2-3 hrs of stem cell isolation and another 1-2 hrs in injecting cells. The processing of sample is done in a state-of-the-art class 10000 clean room wherein we strictly adhere to maintain quality of standards. Wherein the extracted sources undergo minimum manipulation such as been spun in a centrifuge to cull out a stem cells.

TARGETED delivery

Once isolated, intensified and ready for reinstalling back into the body, we work out different mode of implantation: depending upon patient's health condition.

■ Intravenous Administration

Cells will be infused directly into the vein to be able to circulate in the vascular system. This may further help to induce immediate signaling pathways to direct cells to the site of injury

■ Intra-theal Administration

Intrathecal administration is the infusion of stem cells via injection into the spinal canal, most popularly known as **Lumbar Puncture**.

REHABILITATION

Post treatment care involves reclamation therapies such as Physiotherapy, Recreational Therapy, Occupational Therapy, Patient Counselling etc. for accelerated recovery. The follow up schedule will be provided at the time of discharge.

Special services for outstation patient

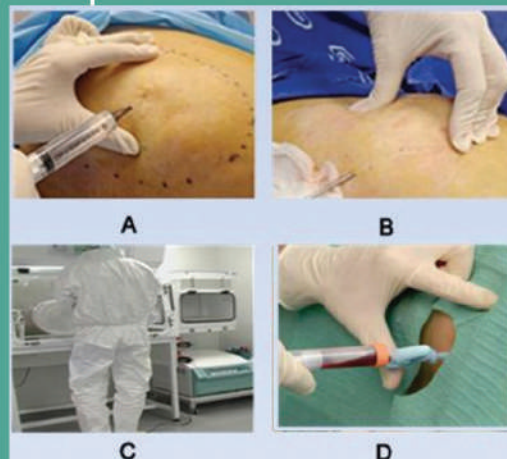
- Assistance in Visa and planning travel itinerary.
- Assistance in getting comfortable Accommodation in nearby location.
- Travel Assistance for sight seeing.
- Assisting with your interpretation services.
- Assisting with multiple payment options.
- Expedite arrival with fast track registration.

Bone Marrow Extraction



- A. Application of local anesthesia.
- B. Bone Marrow collection by needle insertion in the hip bone.
- C. Isolation of Stem Cells in the clean room.
- D. Intra-theal Injection of stem cells.

Adipose Tissue Extraction



- A. Application of tumescent anesthesia.
- B. Adipose Tissue collection by lipoaspiration.
- C. Isolation of Stem Cells in the clean room.
- D. Intra-theal Injection of stem cells.

Each Case is Special For Us,

Therefore Every Cell has to pass through a Stringent Quality Control Parameter.

■ Clinical Definition of Stem Cells

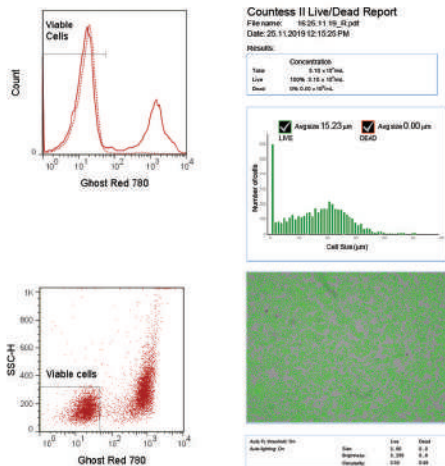
- Stem Cells are the mother cells of our body.
- They can divide unlimited times.
- Can differentiate into any cell type.
- Can be exploited to treat diseased condition.

At Advancells, we provide a high concentration of viable stem cells with enhanced differentiation potential for our treatment procedure. The patient derived stem cells are checked for mycoplasma and endotoxin contamination after isolation from the patient's body.

The stem cell suspension are checked for both gram-positive and gram-negative bacterial load during procedure for preventing any bacterial infection upon re-injecting them to the patient's body.

1.

Characteristics of Stem Cells



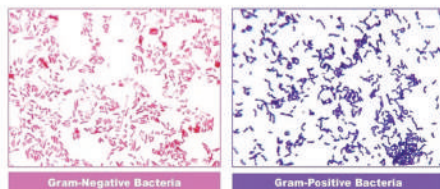
2.

Mycoplasma Detection



3.

Detection of bacterial containment



4.

Endotoxin Analysis



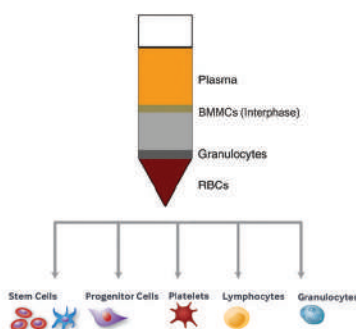
5.

Viable Cell Count & Analysis



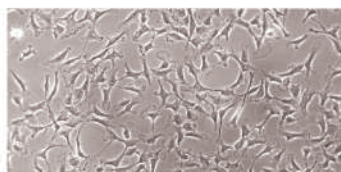
Analysis report		
Viable cell count at the time of dispatch: x * xx cells		
Mycoplasma : Negative		Endotoxin : Negative (Qualitative Test > 0.2EU/ml)
Marker Analysis (Reference Document No: 0024GI001552):		
Markers Detected	Interpretation	Percentage
XX	Positive/ Negative	xx%
XX	Positive/ Negative	xx%
XX	Positive/ Negative	xx%

Technology Calling..

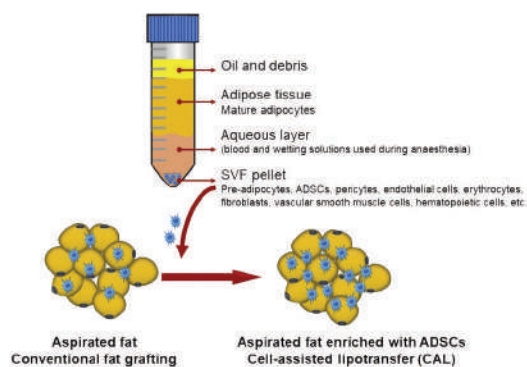


Bone Marrow derived mononuclear cells

Neutrophil	72.3%
Eosinophil	1.8%
Lymphocyte	12.1%
Monocyte	2.8%
Nucleated Erythrocyte	8.9%
Blast Cells	1.6%

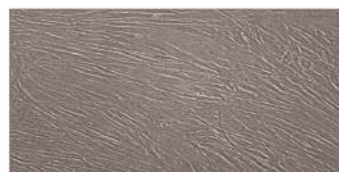


Bone Marrow Stem Cells promote vasculogenesis and differentiation to enhance blood circulation.



Stromal Vascular Fraction

Endothelial Cells	25%
Myeloid Cells	22%
Monocyte	20%
cKit ⁺ Progenitor Cells	5%
CXCR4 ⁺ Multipotent Cells	2.5%
PDGFR- β ⁺ Perivascular Cells	20%



Pre-Adipocytes are known to produce cells of neuronal origin and regularise inflammatory immune responses.

Stem Cell Therapy Success Rate

Symptoms	Percentage Improvement
Social Interaction	67.3
Eye Contact	81.06
Attention/ Concentration	83.41
Stereotypical behaviour	54.3
Aggressiveness	59.04
Hyperactivity	66.49
Self-Injurious Behaviour	61.33
Sitting Tolerance	87.93
Command Following	85.43
Speech	60.48
Communication	61.27
ISAA	94.23
CARS	95.67

FACILITY & EXPERTISE



CAN only Rehab Help?

- Physiotherapy
- Speech and Language Therapy
- Hyperbaric Oxygen Therapy
- Neurofeedback
- Chelation
- Occupational Therapy
- Diet
- Counselling
- Medical Management
- Recreational Therapy

How should I choose a good center for stem cell therapy?

The following criteria should be kept in mind:

- A Center with all types of regulatory compliance & certifications.
- Specialized in offering safe & viable stem cells which is further certified through CoA.
- A Centre with good technical expertise & good infrastructure.



Children and adults with cerebral palsy require long-term medical management and care. Besides a neurologist and a pediatrician, the multi-modal treatment array might include a variety of therapies based on physical, speech, recreational and occupational purposes. Physiotherapy and exercises can be a beneficial part of a team approach to help people suffering from cerebral palsy to enhance their muscle movement abilities and reduce muscle weakness gradually.

- Improve muscle control and reduce tremors.
- Reduce Muscle rigidity and weakness.
- Improve swallowing and eating activities.
- Improve learning and interoception.
- Reduce tendency of seizures.

Let's Hear it from the Parents..

■ THERMISHAASOMAN, 4 YRS, SOUTH AFRICA

4-year-old Thermishaawas diagnosed with cerebral palsy when her mother contacted Advancells with much hope. With the help of stem cells, Thermishaa showed improved signs of muscle movement and visual ability.



■ MARTIN MARINOV, 5 YRS, BULGARIA

Martin was a preterm baby who was diagnosed with cerebral palsy upon suffering from asphyxia. 5 months post treatment from Advancells, Martin showed signs of reduced spasticity and improved concentration.



■ JONA GHELLI, 16 YRS, USA

A week after her treatment from Advancells, Jona's parents noticed reduced signs of muscle tremors, seizures, and improved fine motor skills like buttoning her dress. They were happy significant improvements with stem cell treatment for their daughter's cerebral palsy condition.



■ REYAN SINGH, 4 YRS, INDIA

Post treatment, Reyan showed signs of speech and developmental improvement. Even his recreational and speech therapist encouraged his improved cerebral palsy condition after his stem cell treatment.

Certifications





Advancells

G R O U P

Shaping the Future



advancells

THE POWER TO CURE



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