

3. Stem Cell Therapy for Autism- Science & Technology

Stem cell therapy cannot be offered as a clinical service for autism- Supreme Court
The Supreme Court's ruling on Stem Cell Therapy (SCT) for autism spectrum disorder (ASD) is a landmark judgment that prioritizes medical ethics and scientific evidence over experimental commercial ventures. By banning SCT as a routine clinical treatment for autism, the Court has protected vulnerable families from financial and medical exploitation.

The Supreme Court's Ruling- Legal and Ethical Mandates

The Court addressed the growing trend of private clinics marketing SCT as a "cure" for a condition that is fundamentally neurodevelopmental rather than a disease.

Categorical Prohibition- The Court ruled that SCT cannot be offered as a routine clinical treatment for ASD.

Scientific Dearth- It observed a critical "dearth of established scientific evidence" regarding both the efficacy and the long-term safety of using stem cells for autism.

Standard of Care- Administering unproven therapies violates the "reasonable standard of care" that medical professionals owe to their patients.

The Informed Consent Fallacy- The Court held that valid informed consent is impossible if there is no adequate scientific data to disclose. Consent must be an "informed authorization"—meaning the patient/guardian must fully understand the nature, risks, and the lack of guaranteed benefits.

Limits of Autonomy- Patient autonomy or parental rights do not grant an entitlement to demand unsafe or unproven medical interventions.

Regulatory Directive- The Court directed the Government of India to establish a dedicated regulatory authority for nationwide oversight of stem cell research and its clinical applications.

Understanding Stem Cells and Therapy

To understand why the Court intervened, it is essential to distinguish between the biological potential of stem cells and their current medical reality.

What are Stem Cells?

Primitive, unspecialized cells capable of self-renewal (copying themselves) and differentiation (turning into specialized cells like bone, heart, or nerve cells).

Mechanisms of Therapy- Primarily aimed at regenerative medicine—repairing or replacing damaged tissues—and immunomodulation (reducing inflammation).

Established vs. Experimental Uses-

1. Approved- Hematopoietic Stem Cell Transplantation (HSCT) for blood disorders (e.g., Leukemia).
2. Investigational- Research is ongoing for Parkinson's, Alzheimer's, Spinal Cord injuries, and Type 1 Diabetes, but these remain in the clinical trial stage.

Regulatory Framework in India

The gap between "research" and "treatment" is strictly governed by national guidelines.

Feature	Clinical Treatment (Approved)	Investigational Therapy (Research)
Status	Standard medical practice.	Strictly restricted to Clinical Trials.
Examples	Bone marrow/Blood stem cells for blood cancers.	SCT for ASD, Cerebral Palsy, or Aging.
Commercialization	Clinics can charge for services.	Prohibited to charge patients for trials.
Ethics	Standard medical ethics apply.	Requires ICMR/DBT/DCGI approvals.

National Guidelines (2017)- Jointly issued by ICMR and DBT, these state that any use of stem cells outside of blood disorders is "unethical and impermissible" unless part of a sanctioned clinical trial.

Autism Spectrum Disorder (ASD)- Nature and Management

The judgment reinforces the medical consensus that ASD is a lifelong neurodevelopmental condition, not a "damage" to be "repaired" by stem cells.

Characteristics of ASD

1. **Spectrum Nature**– Symptoms vary widely. Intellectual functioning can range from profound impairment to exceptional "savant" abilities.
2. **Core Indicators**–
 - a. Communication– Delayed speech, limited eye contact, and difficulty with social cues.
 - b. Behaviour– Repetitive patterns (stimming) and a rigid insistence on routines.
 - c. Sensory– Hypersensitivity to light, sound, or textures.

Evidence-Based Management (The Real "Treatment")

Since there is no "cure," management focuses on enhancing quality of life–

1. Occupational Therapy– Developing daily living skills and motor coordination.
2. Speech Therapy– Improving functional communication and language development.
3. Behavioural Therapy (e.g., ABA)– Helping with social interaction and emotional regulation.

Global and National Initiatives

The ruling aligns India with global standards for the rights of persons with disabilities.

RPwD Act, 2016 (India)– Expanded recognized disabilities from 7 to 21, explicitly including autism spectrum disorder for the first time, ensuring legal protections and quotas.

World Autism Awareness Day– Observed on 2 April annually, as declared by the UN General Assembly.

SDGs & UNCPRD– International frameworks emphasize the inclusion, dignity, and autonomy of autistic individuals, focusing on support systems rather than "normalization" through unproven medical means.

Source– <https://www.thehindu.com/news/national/stem-cell-therapy-cannot-be-offered-as-a-clinical-service-for-autism-supreme-court/article70570616.ece/amp/>

