

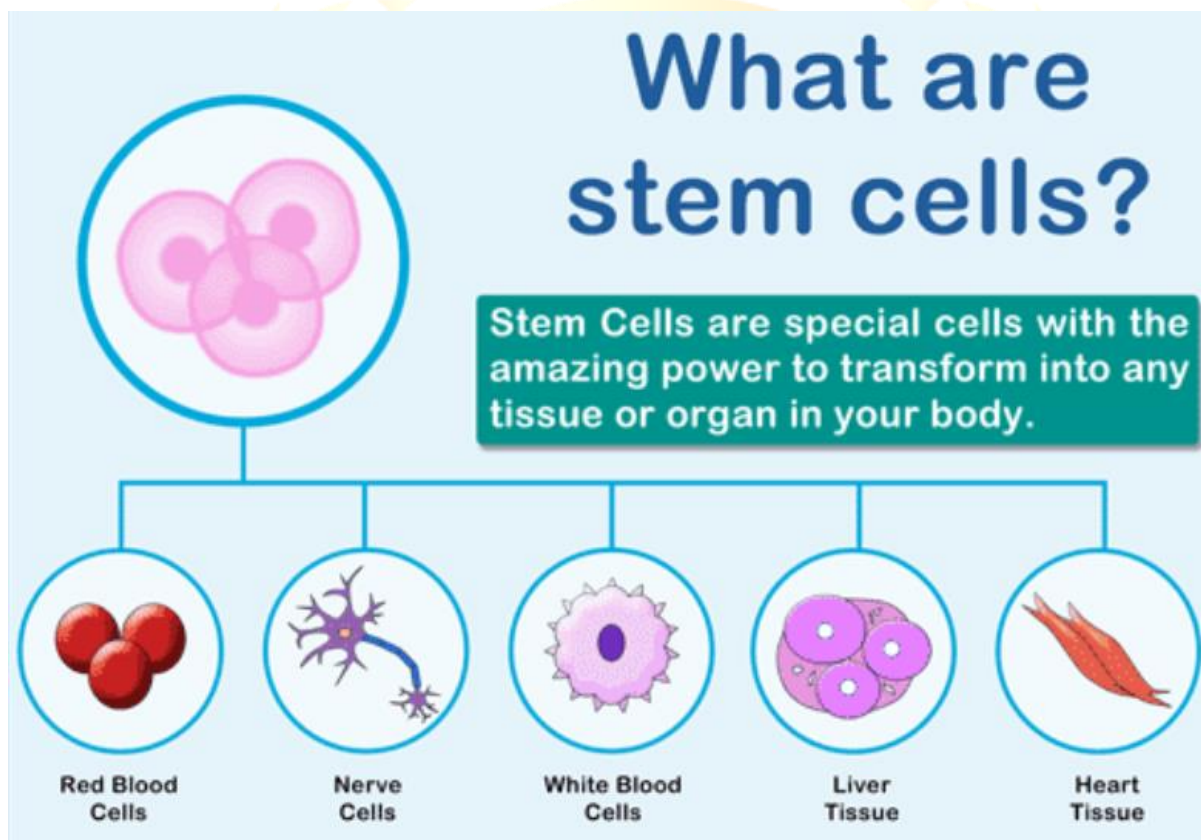


## STEM CELLS : SCIENCE & TECHNOLOGY

**NEWS :** Stem Cell Breakthrough: Woman with Type 1 Diabetes Produces Insulin After Landmark Treatment

### WHAT'S IN THE NEWS ?

A 25-year-old woman with type 1 diabetes, a disease where the immune system destroys insulin-producing cells in the pancreas, began producing her own insulin within three months of receiving a transplant of reprogrammed stem cells.



### First Successful Stem Cell Treatment for Type 1 Diabetes:

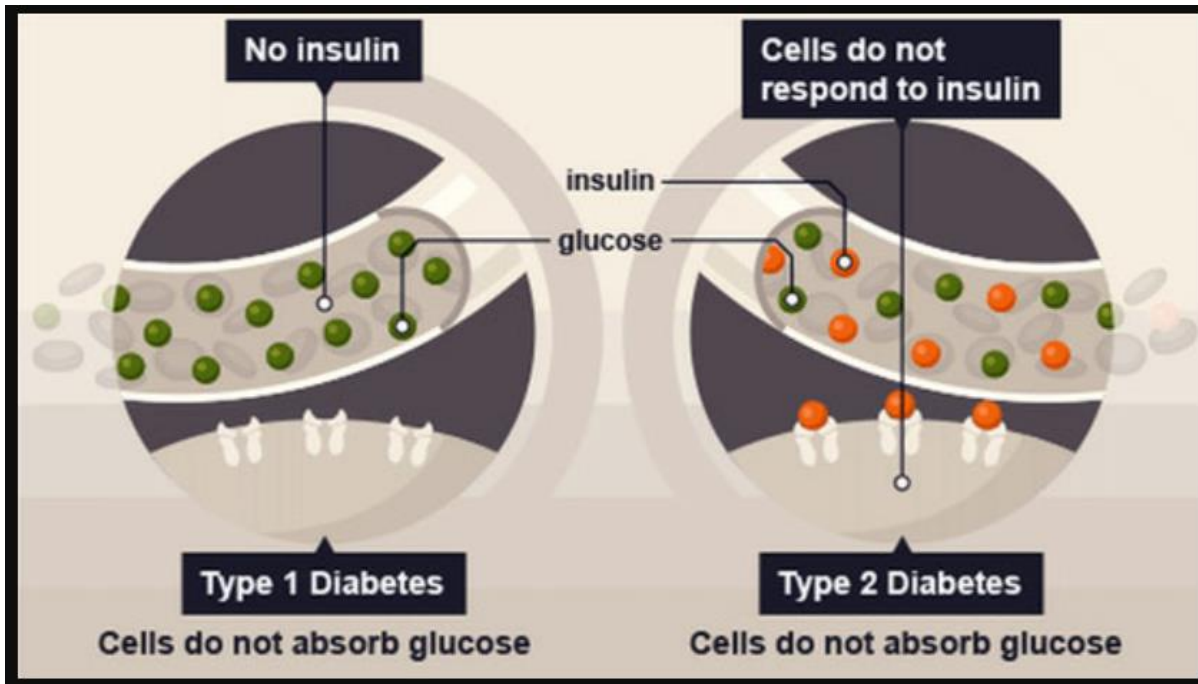
#### Study Overview:

- First successful use of stem cells to treat type 1 diabetes, led by scientists in China.
- Published in *Cell* journal.



## Process:

- Stem cells from three patients were reverted to a pluripotent state and reprogrammed into insulin-producing islets.
- 1.5 million islets injected into a woman's abdominal muscles.



## Results:

- After 2.5 months, the woman began producing insulin independently.
- Insulin production has been maintained for over a year.

## Next Steps:

- Further studies and long-term monitoring needed to confirm sustained insulin production over five years.

Source : [https://www.business-standard.com/world-news/breakthrough-stem-cell-transplant-in-china-offers-hope-for-type-1-diabetes-124093000641\\_1.html](https://www.business-standard.com/world-news/breakthrough-stem-cell-transplant-in-china-offers-hope-for-type-1-diabetes-124093000641_1.html)