



## Stem Cell Manipulation Shows Promise for Cartilage Renewal and Joint Repair

Source: [MedicalNewsToday.com](http://MedicalNewsToday.com)

A recent study of mice suggests stem cells already present in the jaw joint could be manipulated to repair it. The study, led by Columbia University Medical Center in New York, is published in the journal *Natural Communications*. The authors describe how manipulating stem cells in the temporomandibular joint (TMJ) of mice with TMJ degeneration led the cells to repair cartilage in the joint.

The researchers also found that transplanting just a single TMJ stem cell into a mouse spontaneously generated cartilage and bone and even began to form a bone marrow niche.

Lead and corresponding author Mildred C. Embree, assistant professor of dental medicine at Columbia, says, "This is very exciting for the field because patients who have problems with their jaws and TMJs are very limited in terms of clinical treatments available."

Stem cells, which are immature cells that have the potential to mature into virtually any type of tissue cell, hold great promise for regenerative medicine, where faulty, damaged, or injured tissue is repaired by encouraging new cells to grow.

Link to the article: <http://www.medicalnewstoday.com/articles/313395.php>

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