

Drug that regenerates teeth

could be end of fillings

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A failed dementia drug has been found to make teeth repair themselves, a development that could mean the end for fillings.

More than four out of five adults have had at least one tooth filled, with an average of seven fillings each. Dentists

tend to remove tissue and replace it with a calcium or silicon-based cement.

Scientists at King's College London say that they have found a way to stimulate the stem cells in teeth using a drug containing a GSK-3 inhibitor so that dentine, which is found underneath tooth enamel, regrows. Paul Sharpe, the study's lead author, and his team

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drilled holes in the molars of mice until they reached the pulp and then either fixed them with MTA, the standard dental cement, or biodegradable protein sponges impregnated with the GSK-3 inhibitor.

When they examined the teeth several weeks later they found that the dentine had rebuilt itself 1.7 times better

in molars treated with the drug than in those that had been filled with cement.

Although the findings, published in the journal *Scientific Reports*, have only been tested in mice so far, the researchers hope to begin testing the technique on human patients as early as next year. They believe the treatment could cost little more than conventional fillings.