

Doctors seek to regrow parts of fingers

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Doctors at a Texas military base are testing a procedure on wounded Iraq veterans that may allow them to regrow portions of lost fingers.

The procedure involves treatments with a fine powder called extracellular matrix, which is taken from the bladders of pigs, the Wall Street Journal said. The substance is what cells latch on to in mammals to allow them to divide and grow into tissue.

Scientists who developed the procedure say the substance appears to activate latent biological processes in humans that encourage healing and tissue regeneration. They said the processes are active in human fetuses, which have the ability to regenerate and grow new parts, but the ability becomes dormant after birth.

"Fetuses can regenerate just about everything," said Stephen Badylak, a researcher at the University of Pittsburgh's McGowan Institute for Regenerative Medicine. "If those signals are there, how can we turn them back on?"

David Baer, manager of the U.S. Army unit's bone and soft-tissue program, said the team does not expect soldiers to regrow whole fingers.

"We'd love to see bone, but we don't know," Baer said. The hope is for an inch of soft tissue, with blood vessels and nerves, that soldiers can pinch their thumbs against and restore some function.

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