## Artificial skin that 'feels' adds new layer to prosthetics

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In a step toward giving prosthetic limbs a sense of touch, scientists have developed an <u>artificial skin that</u> <u>can "feel"</u> pressure and send those signals to brain cells.

Reporting in the Oct. 16 issue of Science, researchers say the plastic skin mimics the ability of human skin to tell the difference between a firm handshake and the dead-fish variety. It can then transmit that information to cells of the central nervous system.

So far, the principle has only been tested using brain cells from mice, and much work remains before it could be useful for people with prosthetic limbs.

"But, we know what we need to do to move this forward, and I'd estimate this could be available in three to six years," said researcher Alex Chortos, a doctoral candidate at Stanford University, in California.

Recent years have seen major advances in the function of prosthetic limbs, and the "robotic aspects" of modern prosthetics are quite good, Chortos said.

What's remained elusive, he said, are prosthetics that can provide the sensory feedback that real limbs do.

That's partly because the interaction between human skin and the brain is so complex. "One hand has roughly 17,000 sensors in it," Chortos said. And those sensors pick up different types of information.

Read full, original post: Artificial skin could give prosthetics a sense of touch