Maggots genetically engineered to help wounds heal faster

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Scientists at North Carolina State University are bringing an 18th century wound treatment into the 21st century. They've genetically modified maggots to secrete a human growth factor to promote healing while they clean people's wounds.

For some time, doctors have used the larvae of the green bottle fly, *Lucilia sericata*, as treatment. The maggots eat dead tissue and leave living tissue alone. The young insects secrete antimicrobial compounds that keep the wound clean. They're a cheap and effective way to deal with wounds, but not a fast way. Clinical trials have shown that maggots don't cut down on wound healing time. But these new genetically modified maggots might change that, as described in a new paper in *BMC Microbiology*.

Human platelet derived growth factor-BB is a signaling molecule that, when applied to cells, causes them to multiply quickly. It has also been shown to help wounds heal. Other researchers have used insects to produce and secrete human growth factors, but no one had tried the technique with maggots. The North Carolina researchers made two "batches" of maggots. One group was engineered to produce the human growth factor if the maggots were heated to 37 degrees Celsius. The other group was designed to produce the growth factor if they were fed a diet that didn't include the antibiotic tetracycline.

Read full, original post: Genetically-Modified Maggots Could Help Wounds Heal Faster