

Tissue repair drug helps heal diabetic foot ulcers

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Patients were twice as likely to have a diabetic foot ulcer heal within eight weeks when they were treated with a tissue repair drug versus a placebo, according to new research accepted for publication in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism (JCEM)*.

Foot ulcers are a common complication from diabetes than can lead to hospitalization and lower limb amputation. In 2006, about 65,700 non-traumatic lower-limb amputations were performed in people with diabetes, according to the Centers for Disease Control and Prevention. Up to 85 percent of amputations can be avoided when ulcers are prevented from forming or are treated successfully, said one of the study's authors, Francesco Squadrito, MD, of the University of Messina in Gazzi Messina, Italy.

"Foot ulcers are a dangerous and expensive complication for people with diabetes, and current treatments such as hyperbaric oxygen therapy are costly and can have side effects," Squadrito said. "Our study showed for the first time that a pharmacological approach can improve wound healing in people with diabetes."

In the prospective randomized, double-blinded, [placebo](#)-controlled clinical trial, 216 participants with [diabetic foot ulcers](#) free of visible infection were assigned to receive either the tissue repair drug polydeoxyribonucleotide (PDRN) or a placebo. Participants received injections of either PDRN or a placebo for eight weeks and were

monitored for an additional four weeks for any change in the ulcer.

After two months, 37 percent of the patients who were treated with PDRN had their ulcers completely closed, compared with nearly 19 percent of the patients who received the placebo. Study subjects reported few side effects from PDRN, Squadrito said.

"This approach could revolutionize the treatment of diabetic [foot ulcers](#) – a main cause of hospital admissions in the developed world," he said. "An estimated 382 million people worldwide have [diabetes](#), and it is crucial to find effective treatment options for hard-to-heal ulcers and other complications facing millions of patients."

Provided by The Endocrine Society

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