

# Study suggests link between untreated depression and response to shingles vaccine

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Results from a new study published in *Clinical Infectious Diseases* suggest a link between untreated depression in older adults and decreased effectiveness of the herpes zoster, or shingles, vaccine. Older adults are known to be at risk for shingles, a painful condition caused by the reactivation of the varicella-zoster virus, and more than a million new cases occur each year in the U.S. The vaccine boosts cell-mediated immunity to the virus and can decrease the incidence and severity of the condition.

In a two-year study, led by Michael Irwin, MD, at the University of California-Los Angeles, researchers measured the immune responses to shingles vaccination among 40 subjects aged 60 or older with a [major depressive disorder](#) and compared these responses to similar levels in 52 control patients matched by age and gender. Measurements were taken at baseline, and then 6 weeks, 1 year, and 2 years after the patients received the shingles vaccine or a placebo.

Depressed patients not being treated with antidepressants (selective serotonin uptake inhibitors) had lower cell-mediated immunity to the varicella-zoster virus—and were less able to respond to the shingles vaccine—compared with patients who were not depressed or who were depressed but were receiving treatment with antidepressants, the researchers found.

The findings suggest that patients with untreated depression were "poorly protected by shingles vaccination," said Dr. Irwin. [Depression](#)

[treatment](#), on the other hand, boosted cell-mediated immunity and increased the effectiveness of the vaccine among those studied, even when the treatment did not lessen [depression symptoms](#), the researchers found. [Treating depression](#), noted Dr. Irwin, appeared to "normalize the immune response to the zoster vaccine" in the study.

Larger studies are needed to evaluate the possible relationship between untreated depression and the risk of shingles, the study authors noted, along with research to establish what mechanisms are responsible for patients' reduced immune response. The possible connection, however, is potentially significant: If antidepressants increase the efficacy of the shingles vaccine in those who are depressed, such treatment may have a similar effect on the [immune response](#) of depressed patients to other important vaccines, such those against influenza.

Diagnosis and treatment of depression in older adults may increase of the effectiveness of the shingles vaccine and help diminish the risk of shingles, the study authors conclude from their findings. "Efforts are also needed to identify and diagnose depressed elderly patients who might benefit from either a more potent vaccine or a multi-dose vaccination schedule," Dr. Irwin said.

Provided by Infectious Diseases Society of America

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