

# Study: Insomnia takes toll on tinnitus patients

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For the more than 36 million people plagued by tinnitus, insomnia can have a negative effect on the condition, worsening the functional and emotional toll of chronic ringing, buzzing, hissing or clicking in the head and ears, according to a new study from Henry Ford Hospital in Detroit.

The study shows a significant association between [insomnia](#) and the severity of perceived tinnitus symptoms, with patients with insomnia reporting greater emotional distress from tinnitus.

"Tinnitus involves cognitive, emotional, and psycho-physiological processes, which can result in an increase in a patient's distress," says study co-author Kathleen L. Yaremchuk, M.D., Chair, Department of Otolaryngology-Head & Neck Surgery at Henry Ford. "Sleep complaints, including insomnia, in these patients may result in a decrease in their tolerance to tinnitus."

The study will be presented this week at the Combined Otolaryngological Spring Meetings in San Diego.

While the exact physiological cause of tinnitus is not known, there are several conditions that have been shown to trigger or worsen tinnitus: Exposure to loud noises, wax build-up in the ear, ear or sinus infections, head and neck trauma, and certain disorders, such as hypo- or hyperthyroidism, Lyme disease, fibromyalgia, and thoracic outlet syndrome.

Previous medical studies also have shown a strong association between tinnitus and various psychological disturbances.

For the Henry Ford study, Dr. Yaremchuk, Dr. George Miguel and their research team conducted a retrospective study of 117 patients treated between 2009 and 2011 at Henry Ford.

Information was gathered from patients through

telephone and written interviews using the Tinnitus Reaction Questionnaire (or, TRQ, which determines the emotional effects tinnitus has had on a person's lifestyle and general well-being) and the Insomnia Severity Index (or, ISI, a brief screening measure of insomnia) scales.

Severity of TRQ was shown to be a good predictor of sleep disturbance and in predicting group association, especially the "emotional" subscore component (sensitivity 96.9 percent and specificity 55.3 percent for identifying tinnitus patients with insomnia).

The greater the insomnia disability, the more severe the patient's complaints were regarding the tinnitus, the study finds.

"Treating patients with tinnitus is challenging," notes Dr. Yaremchuk. "A chronic tinnitus patient presents a challenging clinical picture that may include anxiety, depression, annoyance, or self-reported [emotional distress](#). And one of most frequent self-reported complaint of tinnitus patients is 'getting to sleep.'"

The study also offers further proof that evaluation and treatment of insomnia [patients](#) with tinnitus may result in a reduction in [tinnitus](#) symptom severity.

Provided by Henry Ford Health System

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