

- Hearing / Noise / Sound

NEED TO TUNE OUT THE RINGING OF TINNITUS? THERE'S AN APP FOR THAT

Initial trials of MindEar suggest it can help tinnitus sufferers filter out the ringing in their ears

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Tinnitus, a condition that causes a ringing in the ears, can be debilitating for anyone who suffers from it. But an international team of researchers say they may have found a possible solution.



Publishing their findings in the journal *Frontiers in Audiology and Otology*, the researchers were able to reduce patients' tinnitus symptoms in a few weeks with an app they developed, called MindEar. The initial trial focused on 30 sufferers, with almost two-thirds experiencing a 'clinically significant improvement' while using the app. Now, the researchers plan to run larger trials in the UK alongside the University College London Hospital.

"Cognitive behavioural therapy [CBT] is known to help people with tinnitus, but it requires a trained psychologist. That's expensive and often difficult to access," said Suzanne Purdy, Professor of Psychology at Waipapa Taumata Rau, University of Auckland, New Zealand. "[The app] uses CBT, mindfulness and relaxation exercises, as well as sound therapy, to help you train your brain to tune out tinnitus. The sound you perceive fades in the background and is much less bothersome."

Our brains start learning to filter out sounds that we determine to be irrelevant (the sound of blood rushing past our ears, for example) before we're born. As we grow, our brains continue to do this, filtering out noises like busy roads or the sound of a kettle boiling.

Sounds like alarms can bypass this filter, triggering a sense of alertness even when we're asleep. Unlike an alarm, however, tinnitus occurs when a person perceives a sound in their head.

There's no external sound source, or associated risk, and yet the brain reacts to it with a fight-or-flight-style response. This causes the brain to focus on the sound. The new app aims to equip patients with the tools they need to suppress stress hormones and responses, reducing the brain's tendency to focus on the perceived sound.

MindEar is not the first app of its kind, however. Oto, another tinnitus app, is currently being trialled in the UK.