

## **Tinnitus and Neurological uses of TMS.**

*Courtesy, Modalis.*

Tinnitus is a subjective perception of a sound, such as ringing or buzzing, without the presence of an external or internal source with a duration of at least three months. It is a very distressing and, frequently, very chronic condition with affects approximately 10–15% of people living in industrial countries.

From a neurophysiological perspective, subjective tinnitus is therefore associated with altered neural activity along the auditory pathway and hyperactivity in auditory brain areas as well as non-auditory brain areas. These given pathological neural circumstances represent a significant leverage point for the application of repetitive transcranial magnetic stimulation (rTMS).\*

At Modalis, we offer rTMS as a part of broader clinical interventions for this condition. We are also collaborating with neurologists to establish protocols for utilising rTMS in a range of neurological conditions, either as a form of safely treating the affective coexisting/comorbid distress (this group of patients frequently does not tolerate antidepressant medication) and/or directly targeting the primary neurological problems, such as:

- migraines
- stroke rehabilitation
- motor disorders and others