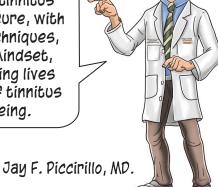
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Tinnitus

Tinnitus is an abnormal reaction to a perceived sound. While tinnitus may not have a definitive cure, with the right management techniques, support, and a positive mindset, individuals can lead fulfilling lives and minimize the impact of tinnitus on their overall well-being.



Tinnitus is a condition characterized by the perception of sounds, such as clicking, buzzing, or humming, in the absence of external sound stimuli. Tinnitus affects a significant number of people, with estimates suggesting that around 80 million Americans experience

some form of tinnitus. For most individuals, tinnitus is a symptom rather than a dangerous disease, but it can be burdensome and bothersome for some.

When diagnosing tinnitus, a thorough medical evaluation is conducted to identify any underlying conditions that may have caused the tinnitus, such as loud noise exposure, ear trauma, or vascular abnormalities. This evaluation typically involves a detailed medical history, a physical examination, and a hearing test. Further diagnostic testing or referral to a specialist may be recommended depending on the specific characteristics of the tinnitus.

Tinnitus can be triggered by various factors, including loud noise exposure, hearing loss, injuries to the hearing nerve, vascular abnormalities, certain medications, or emotional stressors. The exact cause of tinnitus is not always identifiable, but attention and focus on the perceived sound appear to play a significant role in its development and maintenance. The brain's reorganization in response to reduced information coming from the ear to the brain may contribute to the perception of tinnitus as a "phantom sound." Stress, anxiety, and a lack of sleep can exacerbate the patient's reaction to tinnitus.

Stress can worsen tinnitus symptoms by increasing the activity of the brain's attention network,



leading to heightened perception and distress associated with the sound.

Stress can also trigger physical changes in the body that affect the auditory system and sleep quality, further exacerbating tinnitus symptoms.

Managing stress through relaxation techniques, exercise, and stress-reducing activities can help improve tinnitus symptoms.

Brain imaging studies, such as magnetic resonance imaging (MRI), have revealed abnormal connectivity between areas of the brain involved in sound perception and attention in individuals with tinnitus.

These abnormal connections can disrupt the processing of sound and contributes to the excessive focus on and bother of tinnitus. The brain's ability to change and adapt, known as neuroplasticity, is thought to play a crucial role in learning to live with tinnitus. Treatments for tinnitus aim to leverage neuroplasticity to help the brain reorganize and form new connections that reduce the attention and bother of tinnitus.

While there is no cure for tinnitus, various treatments can help manage its functional effects on everyday living. Tinnitus maskers and hearing aids are commonly used to provide relief by



masking the sound of tinnitus or amplifying external sounds to reduce the perception of tinnitus.

Behavioral therapies, such as Cognitive Behavioral Therapy (CBT), Mindfulness-Based Stress Reduction (MBSR), and Acceptance and Commitment Therapy (ACT), have been successful in helping individuals cope with tinnitus and reduce its impact on their daily lives.

These therapies provide techniques and practices to change how individuals think about and react to tinnitus, ultimately reducing distress and improving overall well-being.

It is important to note that while tinnitus maskers, hearing aids, and behavioral therapies



can be effective in Managing tinnitus, they do not cure the underlying condition causing tinnitus. Additionally, there are professional organizations and patient support groups, such as the American Tinnitus Association (ATA), that offer resources, support, and information for individuals with tinnitus and their families.

Overall, understanding the causes, diagnosis, and treatment options for tinnitus can help individuals effectively manage the condition and improve their quality of life.