

# Does Stress Affect Tinnitus? How can CBT and ACT help?

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The experience of tinnitus has been shown to be a contributing factor in the development of a range of physical and emotional problems. Studies carried out over many years show that tinnitus sufferers can experience insomnia, sleep disturbance, auditory distortion, depression, anxiety, irritability and feelings of helplessness. For some people, the experience of developing persistent tinnitus can be traumatic. McKenna et al (1991), using a structured interview conducted by a clinical psychologist, identified 45% of oto-neurology outpatients with tinnitus were found to be in need of psychological help.

It is important to remember that the vast majority of people who develop tinnitus will spontaneously habituate to their tinnitus over time. So for most people, the initial experience of tinnitus is often the most difficult time. Tinnitus awareness, prominence and even volume, to a degree, are typically affected by stress, depression, anxiety and fatigue. Studies indicate that stress, derived from causes unrelated to the presence of the tinnitus (eg pre-existing depression, anxiety), as well as stress associated with the experience of tinnitus, can cause significant exacerbation of the tinnitus and limit spontaneous tinnitus habituation. Stress associated with anxiety, depression, fatigue etc can also be responsible for tinnitus spikes ie. the exacerbation, or worsening, of a tinnitus episode.

A number of studies have found that regular practice of mindfulness, stress management and relaxation techniques have led to a reduction in the level of distress associated with the experience of tinnitus. The role of stress management strategies in tinnitus programs is not to change the physical perception of tinnitus, but to help manage the emotional response to the presence of tinnitus and to reduce the physical symptoms of stress associated with the tinnitus. These techniques can help you cope better with the experience of tinnitus, help reduce the intrusiveness of the tinnitus and its ability to erode your quality of life, and help you achieve a more satisfactory level of tinnitus habituation.

## **Cognitive behavioural Therapy (CBT) and tinnitus**

CBT has been found to be effective in supporting people who are struggling to cope with the negative thoughts and beliefs induced by their tinnitus and how that might affect their behaviour and lifestyle choices. CBT targets the distress caused by tinnitus. It aims to alter unhelpful thoughts about tinnitus through behaviour modifications that may change an individual's reaction toward their tinnitus. It addresses the emotional reaction and problems related to having tinnitus rather than the tinnitus characteristics itself.

CBT has been well researched with regard to the benefit provided as a tinnitus treatment and is considered to have the highest level of effectiveness of all the tinnitus treatments (Hoare et al. 2011, Cima et al. 2019). Cognitive therapy focuses on how the person thinks about tinnitus and their ability to cope with their tinnitus by

identifying, appraising and challenging unhelpful, negative thoughts and beliefs. The aim of behaviour therapy is to teach the person techniques or skills to alter their behaviour. With regards to tinnitus, this focuses on positive imagery, attention control, and relaxation training.

### **Mindfulness and tinnitus**

Mindfulness involves purposefully and nonjudgmentally paying attention to the present moment, relaxing control, tolerating discomfort and sitting with negative emotions rather than avoiding them. It is built on the premise that if by allowing feelings to be as they are, the individual makes them less threatening and reduces their impact.

### **Acceptance and Commitment Therapy (ACT) and tinnitus**

ACT is a mindfulness based therapy. ACT has proven to be effective in a diverse range of clinical conditions such as depression, OCD, stress, chronic pain, anxiety and PTSD. For example, with chronic pain the goal of ACT is to create a positive meaningful life while accepting the pain that inevitably goes with it.

ACT encourages acceptance of what is out of one's personal control and to commit to action that improves one's life while upholding one's values. ACT does not have symptom reduction as its goal. The aim is to transform the relationship the person has with difficult thoughts and feelings.

ACT is a newer therapy than CBT, so has yet to be researched as extensively with regards to its benefit for tinnitus patients. Research to date has shown that ACT can be effective in validating and managing the strong emotions induced by or associated with tinnitus.

## **Stress management is an important aid to successfully coping with tinnitus**

### **What Is Stress?**

Lazarus, a United States researcher, described stress as any relationship between the person and the environment that is perceived as taxing or exceeding his or her resources and endangering his or her well-being. Stress can be induced by any experience that the individual perceives as threatening. Distress is the gap between the demands of the environment and an individual's coping skills.

Physical stresses include environmental pressures such as extreme fluctuations in temperature, injuries and other trauma to the body, such as tinnitus or illness. Psychological stresses are those derived from the individual's reaction such as thoughts, feelings and concerns about perceived threats. These stresses arise from an individual's interpretation of an event, rather than directly as a result of the event itself.

### **What Are The Signs And Symptoms Of Stress?**

Stress can affect the body in many different ways. Each of us differs in the way stress manifests itself in our bodies.

### ***Physical indicators of stress***

Sweating	Back pain	Headaches
Heart pounding	Diarrhoea	Constipation
Dizziness	High blood pressure	Insomnia
Dry mouth	Shortness of breath	
Unable to concentrate		

### ***Psychological indicators of stress***

Nervousness	Depression	Anxiety
Confusion	Lethargy	Constant worrying
Suspicion	Feelings of unreality	Boredom
Negative attitudes	Nervousness	Loneliness

### ***Behavioural indicators of stress***

Alcohol use	Drug abuse	Medication overuse
Impulsive behaviour	Inappropriate crying	Anti-social behaviour
Fault finding	Aggression	Blaming
Short emotional fuse	Nervous laughing	Isolation
Under-eating	Over-eating	Reduced sex drive

## **What Is Stress Management?**

Stress management is the identification and analysis of problems related to stress and the application of a variety of therapeutic techniques to alter either the source of the stress, or the experience of stress. The major goal of stress management is to enable a person to function at his or her optimal level in a healthy and positive manner.

The goal is not to eliminate stress, which is impossible, but to achieve an appropriate balance between a person's personal resources and the demands made upon them. Stress management is about developing behaviours that promote well-being and help us balance the demands of living. Stress management is about developing adequate coping skills.

People can learn to recognise, acknowledge and alter their physical, psychological and behavioural responses to stress. This may involve mindfulness and relaxation techniques, this may involve recognising the need to change the way you think about your tinnitus (CBT approach) and this may involve more in depth acknowledgement, understanding and support of your emotional reaction to your tinnitus (ACT).

### ***A gentle reminder***

1. You can't be held responsible for your tinnitus reaction, but you are responsible for the solution.

2. Stress problems are rarely simple or one-dimensional.

As there are behavioural, psychological and physiological aspects of tinnitus-related stress, the approach to treatment is seldom one-dimensional.

### ***Stress management for tinnitus is a two-stage process involving:***

1. Developing an understanding of the factors that are contributing to excessive tinnitus-related stress, then
2. Learning and applying a range of specific tinnitus stress management techniques.

### **What Is Relaxation?**

Relaxation is the art of getting the whole body to be calm and peaceful. This involves getting the inner and outer parts of the body working together harmoniously. This necessarily requires you to spend time getting to know your own body and learning to identify the early physical and psychological signs of excessive stress.

Relaxation techniques are a means by which you can modify the physical and emotional effects of stress. It is not a treatment for tinnitus, as stress is not solely responsible for the existence of the tinnitus. Relaxation can help dramatically reduce the intrusiveness of tinnitus and shift your focus of attention away from the tinnitus.

Ideally, incorporate relaxation exercises into your daily activities. If, for any reason, your tinnitus becomes very apparent at those times, use sound enrichment strategies to combine with the relaxation technique.

For instance, if you are having difficulty getting to sleep and the tinnitus appears very loud, then an environmental sound can be used in conjunction with a breathing or muscle relaxation technique.

### **How Do I Prepare For Relaxation?**

#### ***Make a private space for yourself***

If at all possible you need to get away from anything that may distract you from the relaxation process. Ideally in a room on your own. Turn off the radio, TV, and shut out any pets. Reduce the level of intrusive background noise and if needed, sound enrichment as described above. Lie down if possible, or sit on a chair that supports your back and one in which your feet can rest easily on the ground. You must be comfortable. A pillow for your head can be good, though the aim of relaxation is not for you to fall asleep.

#### ***Stretching***

A simple stretching exercise can help reduce stiffness and prepare you for settling into the relaxation exercise.

#### ***Breathing***

Become aware of your rate of breathing. A few deep breaths can help clear your head and prepare you for starting the relaxation exercise.

#### ***Become aware of any tension spots***

In your stretching were you aware of any sore spots or any tenderness in the back or neck muscles? Focus on those areas of your body in which you often store stress. Are you breathing shallowly? Is your stomach churning a bit? Do you feel tense or angry?

## How Do I Actually Relax?

**1. Start with a muscle tensing and relaxing exercise.** Focus first on your feet and gently tense the muscles in both feet, then relax them. Do the same then with your calves, then the thighs, the stomach muscles, etc until you have worked your way through all the muscles in the body.

**2. Regulate your breathing .** A simple technique is to breathe in, counting to yourself 'one' and then hold the breath for 'one', and then breathe out for 'one' and then hold for 'one' and so on. The aim is to make your breathing measured and easy. Another technique is to breathe steadily and deeply without it being forced, and on the out breath say to yourself R-E-L-A-X. It helps to practice saying it out loud for the first few times, then keep saying it to yourself. This breathing technique can be used in any situation in which you feel yourself becoming tense or stressed.

**3. Use positive mental imagery.** Your thought processes can have a significant effect on how successful relaxation techniques are for you. If you are using an environmental sound or pleasant music in the background, then imagine yourself in a pleasant, calm and peaceful environment. Visualise yourself lying on the beach listening to the waves breaking on the sand, or lying on the grass by a river listening to the water bubbling over the rocks. Such positive imagery can be very soothing as the final stage of the relaxation process. Let your tinnitus merge into these pleasant sounds and become part of them.

Through this process the perception of tinnitus will become a trigger for positive thoughts and emotions, rather than a source of distress and anxiety. Let the tinnitus merge back into the sounds of the environment, no longer a significant or threatening sound, but yet another dimension of the rich tapestry of sound which surrounds us throughout our lives.