



In partnership with Parent's for Children's Mental Health (PCMH):



# Misophonia: When People Sounds Cause Stress



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**Summary:** Misophonia is a condition where people's brains are hypersensitive to sounds, such that when they hear people sounds (such as people chewing, breathing, sniffing or tapping), it can lead to extreme distress. Being around other people (especially during mealtimes) becomes very stressful. It can be hard for people without misophonia to understand how distressing this is. Misophonia is a condition where a person's brain is wired differently for sound. It is not due to them purposely trying to be difficult or controlling. The good news is that many strategies, services and supports can help, such as audiologists and using white noise.

## M's Story

M. is in her teens and is so distressed by the sounds of family members eating or breathing that she can no longer tolerate meals with her family. Her family can't understand why she can't just have dinner like everyone else.

## Is This You?

Do you get upset, irritated or very angry when you hear people:

- Eating or chewing with their mouths open?
- Sniffing?
- Typing on a keyboard?
- Making other soft sounds that don't seem to bother anyone else?

If so, you may have misophonia.

## What is Misophonia?

Many of us have had the experience of hearing sounds that make us feel uncomfortable. For example:

- The sound of fingernails scraping across a chalkboard makes many people cringe.
- Sirens or smoke alarms make our hearts beat faster.

Being aware of certain sounds and reacting strongly to them may have been very helpful to early humans. This helped our ancestors survive by alerting them to possible dangers.

However, in misophonia, people are so sensitive to certain sounds, that it causes stress.

Top Misophonia Sound Triggers

Top triggers for those with misophonia (Schröder, 2013):

- Eating sounds (81% of those with misophonia)
- Loud breathing or nose sounds (64% of those with misophonia)
- Finger or hand sounds (59% of those with misophonia)

Interestingly, humans make most of the sounds and sights that trigger misophonia. A dog slurping down a bowl of food or similar does not usually provoke a misophonic reaction.

When a person with misophonia hears a trigger sound, these sounds trigger the person's fight/flight response.

They may feel intense dislike, sensitivity, distress, fear, stress, anger and even rage.

Family and friends may find misophonia hard to understand. Since they don't have the same problem, they typically have trouble understanding why the person is upset by sound.

They may express their frustration and lack of understanding by saying things such as, "Just get over it!" or "Stop being so sensitive!" "Stop being so controlling!"

Visual triggers aka. Misokinesia

Misokinesia (literally, "hatred of movement") is when a person is triggered by seeing someone repeating specific physical actions, such as those originally associated with misophonia sound triggers.

For example:

- A person triggered by the sound of tapping may become triggered by simply seeing someone tapping their fingers, even if they cannot hear any tapping.

## Terms

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Misophonia means "hatred of sound." It is also known as selective sound sensitivity syndrome ("4S").

## Related Conditions

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Misophonia is part of a group of sound tolerance difficulties (decreased sound tolerance).

Other conditions in this group are

- Hyperacusis: Extreme sensitivity to all sounds in general (for example, normal sounds seem too loud).
- Phonophobia: Fear of certain sounds.

Tinnitus is often also seen in people with misophonia. Tinnitus is when people experience ringing or other noises (such as roaring, clicking, buzzing) in one or both of their ears when there is no sound, which is why others cannot hear everything.

Sensory processing problems are often also seen in people with misophonia. Examples include

- Touch or tactile hypersensitivity, where people become distressed by touch;
- Visual stress, where people may have distress with light such as fluorescent lights;
- Smell and oral sensitivity, where people may be hypersensitivity to smells, tastes or food textures.

## How Common is Misophonia?

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About 3% of the general population has misophonia (Jastreboff, 2014).

Most people report their symptoms start in their 'tweens', around age 9-12.

## What's Happening in Misophonia?

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Step 1: In misophonia, the person's ears work normally at hearing sounds.



Step 2: However, when the sounds are processed by the brain, they appear to trigger the limbic system, turning on the 'fight/ flight' alarm system. People report feeling upset, to the point of being irritable, afraid or angry.

## What Causes Misophonia?

Misophonia also appears to occur more commonly in people with certain conditions such as

- Sensory processing problems aka sensory processing disorder (SPD)
- Autism spectrum disorder (ASD);
- Post-traumatic stress disorder (PTSD);
- Obsessive compulsive disorder (OCD).
- Brain injury.

## Frequently Asked Questions (FAQ)

Q. I get really stressed when my sister chews (especially when she chews salad), but it doesn't happen with other people. Is it still misophonia?

A. Yes, people often report that their misophonia starts with just one person or just one sound and then progresses from there.

Q. I am super sensitive to my family's chewing sounds. However, I also find that other sounds are too loud when they reach a certain level. Is that normal?

A. Yes, your sensitivity to the family's chewing sounds would be misophonia. Sensitivity to other sounds is known as hyperacusis, which is sensitivity to sounds in general especially loud sounds. People can have both.

Q. Is it okay to wear musician filters, hearing protection or noise-cancelling headphones without music to deal with my misophonia?

A. On the one hand, wearing things to block out the sounds will lead to relief in the short run. Do this if you are overwhelmed. On the other hand, blocking sound may not help in the long run and can make you more sensitive to misophonia sounds when you do not have your headphones on. Audiologists recommend a system of gradually increasing white noise, pleasant background sound or music to help your brain get used to sounds.

Q. I heard that a white noise machine could help with misophonia. Is that true?

A. Yes, white noise can be helpful. Some people like white noise, and some people find it overwhelming. Listen to your brain. If the white noise machine is enjoyable, use it! If not, a household item that makes a similar noise like a fan might work. Try having a fan on and seeing if the sound it makes is more enjoyable or tolerable. Others find it helpful to set up a 'white noise' app with a portable Bluetooth speaker to listen to nature sounds, the sound of a coffee shop, a busy train station, etc.

## Where To Get Help for Misophonia

Are you wondering if you might have misophonia?

Consider seeing an audiologist with experience in misophonia, hyperacusis or tinnitus (ringing in the ears).

The audiologist will ask questions about what you are experiencing, and they can check your hearing as well, and then can make recommendations about what might be helpful.

The audiologist may also recommend other professionals, especially if you have related conditions such as sensory processing disorder, autism spectrum disorders, post-traumatic stress disorder and brain injury.

Examples of other professionals include

- Occupational therapists (OT) with experience in sensory processing disorders.

## Self-Help For Misophonia

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Take good care of your brain.

- Get enough sleep.
- Eat a healthy, nutritious diet.
- Get enough exercise (at least 60-minutes a day).

Educate family members about misophonia.

- Explain that you have misophonia, which causes distress with the sounds that they make, and that it is no one's fault. Explain that it is because your brain is wired differently for sound. You cannot simply choose not to get upset by sounds, just like people can't choose to stop having seizures or asthma. Consider showing them information (like this handout) or websites about misophonia.

Mindfulness and meditation

- Regular practice of mindfulness and meditation can help the body to be in a calmer state overall.
- When a person is calmer overall, they will be more resilient when they encounter their usual triggers.

Identify your triggers and have a plan for each trigger.

- It can be helpful to identify each trigger and see if there is a specific plan you can come up with them.
- Try to avoid sounds if possible -- and the earlier you avoid them, the sooner you prevent them from causing you upset.
- Examples
  - Is it the sound of your partner eating a salad that triggers you? Have white noise at mealtimes to drown out the chewing, e.g. nature sounds, restaurant ambient noise, etc.
  - Is it the sound of a co-worker tapping? Perhaps headphones to listen to music, a white noise generator, or hearing protection headphones.
  - Is it your partner's typing? Get them a quieter keyboard or a keyboard cover.

Background and white noise

- Try to work up to background sound around 24 hours a day, 7-days a week, to help your brain habituate.
- Background sound will help reduce the stress from trigger sounds. The background sound does not have to be loud. It just has to be at a comfortable level that you can tolerate, which can vary depending on your day.
- Ways to have background sound
  - White noise app or audio tracks through your headphones or tabletop speaker.
  - White noise. Some people prefer nature-based white noise, e.g. the sound of heavy rain, whereas others prefer 'artificial white noise', e.g. static, or the sound of a fan, humidifier, or aromatherapy diffuser.

Distraction

- Have you been triggered by a sound? Consider using distraction, e.g. chewing gum, squeezing a stress ball, knitting or crocheting, etc.
- During mealtimes, many people naturally report that it is easier with background noise to drown out the sounds of people chewing.

Seek support from other people with misophonia.

- Many people with misophonia suffer on their own. It can be very validating to see that you are not alone.
- It can help to share and normalize your experiences with misophonia with others.

- There are many misophonia forums where you can learn about coping strategies from other people that cope with misophonia.
- Examples include
  - Misophonia International
  - Misophonia.blog
  - Misophonia Podcast.

Going to the movie theatre? Do you have trouble with people chewing popcorn in the theatre?

- Many movie theatres offer amplified headsets and assistive listening devices to hear the audio better.
- By wearing these headsets, you can hear the movie's audio track more loudly, which helps to drown out the noise of the person eating popcorn and slurping their drink behind you.

## Treatments / Interventions for Misophonia: Misophonia Retraining Therapy (MRT), aka Jastreboff's Protocol

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Misophonia Retraining Therapy (MRT) was developed by Dr's Margaret and Pawel Jastreboff. It was originally known as tinnitus retraining therapy (TRT) and was used to help people with tinnitus. As the protocol can be hard to do on your own, it is best to have the help of a professional, if possible.

Early steps

- Make sure that you are never in silence by ensuring that you are always listening to pleasant, tolerable background sounds, which habituate the brain to sound.
- Do activities that you enjoy which involve sound, which helps the brain to rewire itself to associate the sound with pleasant situations.

Later steps

- Combine pleasant background sounds with triggering sounds to help reduce the response to trigger sounds (Jastreboff, 2014).

The classic protocol has four steps:

Step 1 - Listen to sounds while you have full control.

- You have complete control over the type of sound, how loud and how long you listen to it.
- Identify and choose some pleasant sounds such as
  - Nature sounds,
  - Listening to music, such as spa music, relaxation music or instrumental music.
  - Shopping in a mall.
  - Being at a coffee shop
- Listen to this sound at a comfortable level (this could be barely audible), and while listening to these pleasant sounds AND...
- ... While listening to the sound from above, do an activity you enjoy like painting, being in the bath, getting a massage, doing yoga, stretching, colouring in a colouring book, sculpting.
- In the first week
  - Listen once or twice a day for 20-40 minutes.
  - Change the sound as needed for comfort. Ensure your choice of sound is relatively stable, not changing volume significantly.
- Over the next weeks
  - Gradually increase the volume. If this causes too much distress, then back it down again.

Step 2 - Listen to sounds where another person has partial control.

- Are you able to tolerate sound that you are in complete control over?
  - If so, do the same activities with your selected type of sound AND ask a trusted person to set the volume level to something they think you can tolerate.
  - After an agreed amount of time, you give feedback as to the level of the sound they set. Was it too

high? Was it too low?

- Examples of activities
  - Music at dinner.
  - Watching a video or movie together.

Step 3 - Listen to sounds where another person has complete control.

- Like with the previous step, have your trusted person control the sound. However at this step, let them turn the volume up or down without considering your feedback.
- This trains your brain to tolerate noise you have no control over or how to cope with such situations.
- Is the noise too much for you? Make sure you know you have an exit strategy if it becomes too much (leaving the room without making sure that is ok with your listening partner).

Step 4 - Introduce unpleasant sounds

- While enjoying your controlled sound and activity environment, briefly and softly introduce the sounds that you dislike, like chewing noise or tapping.
- Over time and listening sessions, gradually increase this exposure by increasing the occurrence and duration.
- Have your partner keep a journal to ensure that exposure is not happening too rapidly. This step can also take weeks or months.
- At first, the pleasant sound could hide the unpleasant or trigger sound. Over the following weeks, decrease the pleasant sound or increase the unpleasant sound, still while doing something that you enjoy.

## Other Treatments for Misophonia

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### Mental health apps

Dozier Trigger Tamer App, is a mobile application created by Thomas Dozier of the Misophonia Treatment Institute ([misophoniatreatment.com](http://misophoniatreatment.com)). The app's creator states that it is designed to help the brain 'rewire' itself to overcome sound sensitivity. The app uses soothing music along with 'trigger sounds' to help the user to become less sensitive to distressing sounds gradually.

### Safe and Sound Protocol (SSP)

The SSP is a 5-hour listening therapy that Dr. Stephen Porges developed to help people that become distressed by the sounds of human interaction.

It involves listening to especially engineered music that desensitizes the brain to human frequencies with the support of a professional. Classically, this was done with 1-hr a day x 5-days, but newer protocols are more flexible.

It was originally delivered in-person with a professional, but can now also be done virtually. The intervention can be delivered online as long as you have headphones and an internet connection.

SSP was designed originally for people such as those with autism spectrum disorders (ASD) who have trouble tolerating the sounds of being around other people.

Although there is a lack of published studies looking at the Safe and Sound Protocol (SSP) for misophonia specifically, many reports of people with misophonia report that SSP has been helpful.

Any professional can deliver SSP with the proper training. Right now, it tends to be social workers and occupational therapists.

### EEG Neurofeedback

Neurofeedback trains the brain to feel calmer by rewiring neural networks.

There is a lack of published scientific studies looking at neurofeedback for misophonia. However many people have reported success with neurofeedback for misophonia.

Neurofeedback practitioners report the most success with InfraLow Frequency (ILF) Neurofeedback, which focuses on low-frequency brain waves that control core neuro-regulatory networks. Practitioners report that sometimes sensitivity improves within a few sessions. However, a usual course of treatment requires a minimum of 20 sessions

## M's Story, Part 2

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M. sees an audiologist who has experience treating misophonia. It is an incredible relief to know that she is not alone, and that "its actually a thing."

After counselling, sound therapy, and homework activities, she is finally able to tolerate sitting around other people when they are eating.

At home and school, she no longer gets angry and upset when people chew food. And more importantly, she is finally able to enjoy a meal with her family, something that had become problematic for the whole family.

## Useful Websites

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The Misophonia Association

[www.misophonia-association.org](http://www.misophonia-association.org)

Misophonia UK

<http://www.misophonia-uk.org>

Tinnitus Practitioners Association

<http://www.misophonia.com>

Oregon Tinnitus and Hyperacusis Treatment Center

<http://store.tinnitus-audiology.com/about-us.aspx>

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## Further Reading

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## Authors

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