

Sound sensitivity and hyperacusis in people with environmental illnesses



People who are highly sensitive to chemical fumes (MCS) or electromagnetic fields (EHS) often report that sounds and noises are also particular problems.

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Some people are much more troubled by noise and sound than regular people. This can even be sounds that they consider pleasant, such as music.

To some, the sounds are distracting or irritating. Others actually get symptoms, including pain in their ears or various neurological symptoms.

Several scientific studies find that many people who are highly sensitive to chemical fumes or electromagnetic fields are also hypersensitive to noise and sounds (Viziano 2016, 2018; Palmquist 2014; Nordin 2014; Miller 1999).

2 *Sound sensitivity*

Sound sensitivity is also common for people with autism, migraines, chronic fatigue syndrome (CFS/ME) or Long COVID.

Some people call it hyperacusis when sound produces negative reactions such as pain, annoyance, or fear (Viziano 2016).

It is not understood what causes it, but the problem appears to be in the central nervous system, as the functioning of the ear itself is normal (Viziano 2016).

Types of sound are important

The type of sound is important. There are no universal “bad sounds,” though some types of sound are more common triggers.

The drone of fans, gasoline lawn mowers, air conditioners, and cheap portable generators are common nuisances. So are airplanes taking off from airports.



The impulsive sound and vibrations from helicopters are frequently a problem.



Large wind turbines generate impulsive infrasound in their wake as they spin

This writer knows two people who used to be professional musicians before severe MCS ended their careers. They both report that certain instruments are a real problem for them, and untuned instruments are really bad too.

Distorted sounds

Whenever sounds are recorded or transmitted, they will be distorted in some way. Some more than others.

This writer has no problem with a live orchestra, but playing a music CD on a boombox causes symptoms within minutes (including music much loved for decades). Even though CDs contain a high-quality recording, there are still some distortions from the digitalization and amplification. Even if distortions cannot be heard, they can still somehow cause problems.

Some audiophiles actually prefer the old-style analog LP records to digital sound, so some people can hear the difference.

Telephone systems

Telephone systems are particularly bad at distorting sounds. This comes from the early design decision to only transmit frequencies below 3000 hertz to allow multiple conversations to be transmitted on a single wire on the telephone poles.

This means only the low and middle tones of human speech are carried through. Then comes distortions in the microphones, speakers, amplifiers and other hardware.

If the sound is transmitted wirelessly, there are even more distortions as the sound is not transmitted continuously, but in individual snippets, which are put together again at the other end. (They are called “packets” in technical jargon; there are typically 217 of them each second.)

Sometimes some of these brief snippets get lost or distorted en route. This can cause problems, even when the sensitive person uses a landline telephone, if the person on the other end uses a mobile phone.

Internet phones (VoIP) also have a tendency to lose data, and be a problem for sound-sensitive people.

Infrasound

Infrasound cannot be heard, as it has too low a frequency, but the soundwaves can still be felt. They are commonly generated by large blades that turn relatively slowly, such as on wind turbines and helicopters.

For some people, the infrasound can resonate with the chest cavity and give them strange sensations in the chest (Pierpont 2009).

The lower the frequency of sound, the further it can travel. With infrasound as the lowest, it reaches further than any sound that can be heard. Some extremely sensitive people report feeling a helicopter approach their home before they can hear it, or they are bothered by large wind turbines when standing downwind from them.

Problems with selective hearing

Humans normally have a canny ability to pick out some sounds and ignore others. This allows us to have a conversation in a room with loud music or many other people talking.

But people who use hearing aids lose this ability and have trouble keeping up a conversation in a large gathering.

Some people with sound sensitivity also have this problem. It seems to be an inability to tune out the unwanted sounds, to not filter them out. This may be the

same reason why people with sound sensitivity have trouble with even low levels of noise, which they simply cannot tune out.

More information

General information about MCS and EHS: www.eiwellspring.org/intromenu.html

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