

# Montana's Number One Hearing Problem

By Pat Fournier BC-HIS

Over the last 20 years I've fit thousands of Montanans with hearing aids. The number one cause of hearing loss here in Montana is not age. It's noise exposure. Noise exposure leads to a type of hearing loss that has been difficult to treat because only certain tones are affected.

Noise typically causes a "high frequency" hearing loss. This means a person with noise damage hears low tones just fine but doesn't hear the high tones. Low tones include door knocks, engines running and vowel sounds of speech. High tones include microwave signals, watch alarms, birds singing and consonant sounds of speech.

If you don't hear high pitch consonant sounds but hear the lower pitched vowel sounds well it seems like you hear O.K. Yes, you hear. But speech may not sound clear!

If someone says:

**The hound found a pound of ground round** it could sound like  
e ound ound a ound o round round. You hear part of words just fine, but you don't hear speech clearly.

Most people with this type of hearing loss watch people closely and pick up those consonant sounds by watching people's mouths. Using those clues help those with high frequency hearing loss cope with understanding speech.

However, watching for clues doesn't always work.

Your brain actually goes into overdrive trying to understand what people are saying. In a noisy room, what high tones you can hear are overpowered by the background noise. Therefore it's much harder for a person with high frequency hearing loss to hear in noisy places. Also, someone with an accent is much harder to hear (low frequency speech clues are different). Someone who talks fast will speak faster than a person with high frequency hearing loss can decipher.

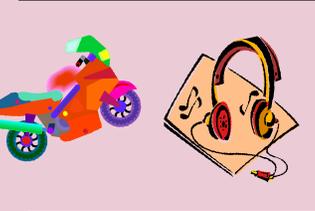
Today we have the technology to address the high frequency hearing loss better than ever before. We have digital sound processors that can amplify those high frequencies without amplifying the low tones. We have feedback control so that we can place a large vent in your hearing aid to let low tones you hear well into the ear naturally without that feedback "whistle". Some of these new hearing aids can incorporate directional microphones so you have an advantage in noisy places. Some new hearing aids are so small they are virtually invisible. Most importantly, these hearing aids can be so helpful and sound so natural, you have to hear them demonstrated to believe it.

By the way, that's what I do.

Save your hearing by wearing ear protection. Know what type of noise over how long a period damages your hearing. An ounce of prevention is still better than a pound of cure. But if the damage has been done and you need to hear more clearly, we have answers.

## Loudness Levels

By Sue Sherman and Pat Fournier

	<p><b>140 Decibels</b> Immediate danger to hearing. Gunshots, Jet engines at take off</p>
	<p><b>120 Decibels</b> Risk of hearing damage in 7.5 mins. Rock concerts, Sandblasting</p>
	<p><b>115 Decibels</b> Risk of hearing damage in 15 minutes. Baby's Cry. Stadium football game</p>
	<p><b>110 Decibels</b> Risk of hearing damage in 30 mins. Snowmobile from drivers seat</p>
	<p><b>90-100 Decibels</b> Risk of hearing damage in 2 Hrs Stereo headphones, 4 hrs motorcycle or power saw.</p>
<p>When OSHA requires Hearing Protection</p>	<p><b>85 Decibels</b></p>
<p>Whisper to Normal voice decibels</p>	<p><b>30-60 Decibels</b></p>

### An Ounce of Prevention

Be alert to hazardous noise. Since prevention is so critical, make sure that your family (especially children), friends, and colleagues are aware of the hazards of noise.