HEARING PROTECTION

“Protect young musician’s most important asset”
Why are we not protecting our young musicians?

• We protect our athletes with safety equipment: pads, helmets, goggles, mouth guards.

• We need to do the same with our young musicians. Ear plugs are their safety equipment.
Weekly Safe Exposure
(without hearing protection)

Allowable Weekly Sound Exposure To Be Safe

- Loud Bar with Band
- Major Sporting Event
- Party with Band
- Chicago Blues Bar
- Drumline Rehearsal
- Old Chain Saw
- Marching Band

Risky for any period
Weekly Max Exposure: 
With vs without hearing protection

<table>
<thead>
<tr>
<th>Sound level (dB)</th>
<th>Exposure type</th>
<th>No protection</th>
<th>Using ER • 20s</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>Conversation</td>
<td>SAFE</td>
<td></td>
</tr>
<tr>
<td>80–85</td>
<td>Noisy restaurant</td>
<td>40 HRS.</td>
<td>SAFE</td>
</tr>
<tr>
<td></td>
<td>Vacuum cleaner</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average factory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>Circular saw</td>
<td>20 HRS.</td>
<td>SAFE</td>
</tr>
<tr>
<td></td>
<td>Loud party</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Motorcycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Subway</td>
<td>5 HRS.</td>
<td>SAFE</td>
</tr>
<tr>
<td></td>
<td>Riding mower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>Live band</td>
<td>2.5 HRS.</td>
<td>40+ HRS.</td>
</tr>
<tr>
<td>100</td>
<td>Sporting event</td>
<td>1.25 HRS.</td>
<td>40+ HRS.</td>
</tr>
<tr>
<td></td>
<td>Chain saw</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Snowmobile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Blues bar/Rock concert</td>
<td>5 MINS.</td>
<td>8 HRS.</td>
</tr>
<tr>
<td>115</td>
<td>Ambulance siren</td>
<td>2.5 MINS.</td>
<td>4 HRS.</td>
</tr>
</tbody>
</table>

Above 125 dB you are at risk for any period without maximum protection

| 140             | Jet engine                                   | INSTANT LOSS  |                |
|                 | Gun shot                                     |               |                |
|                 | Firecracker                                  |               |                |
Interactive Slide Rule

- Use this slide rule to see what the safe exposure is for each instrument with and without protection
High-Fidelity Earplugs

ETY•Plugs® are the world’s highest fidelity non-custom earplugs. They reduce most noise to safe levels while preserving the clarity of speech and the richness of music. ETY•Plugs are configured to replicate the natural response of the ear canal so that when sound enters the earplug, it is reproduced unchanged, exactly the same as the ear would hear it, only quieter.

Benefits

» Reduces sound levels evenly so that music and speech are clear and natural, not muffled as with other earplugs
» Reduces risk of hearing damage for many noisy occupations as well as noisy venues, such as airshows, parades, athletic events and motor sports
» Enhances the music experience for audiences while protecting hearing
» Lets musicians hear their own instrument and their blend with others
Why High-Fidelity VS Foam Ear Plugs?

ETY-Plugs use a tuned resonator and acoustic resistor to replicate the natural response of the ear canal. This unique construction, combined with Etymotic’s proprietary sound path, reduces sound levels evenly across the frequency range without changing the sound quality. Result: Music and speech remain clear, but quieter and safer.

ETY-Plugs Noise Reduction

ETY-Plugs provide almost equal sound reduction (20 dB) across the range of hearing. Foam earplugs reduce the high frequencies, resulting in muffled speech and music.

ETY-Plugs is a trademark of Etymotic Research, Inc.
**Adopt a Band**

**Adopting a band is easy.** First, review the sponsorship levels and make your selection. Then fill out the form below and submit your request.

<table>
<thead>
<tr>
<th>ADOPT<em>A</em>BAND Sponsorship Levels</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopt-a-Band Cost</td>
<td>$250</td>
<td>$500</td>
<td>$750</td>
</tr>
<tr>
<td>ETY Plug High-Fidelity Earplugs &amp; cord (Retail value $12.95 each)</td>
<td>25 pairs</td>
<td>50 pairs</td>
<td>75 pairs</td>
</tr>
<tr>
<td><strong>Education Pack</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pamphlet with facts and charts about hearing protection</td>
<td>25</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Hear for a Lifetime DVD</td>
<td>‍♂️</td>
<td>‍♂️</td>
<td>‍♂️</td>
</tr>
<tr>
<td>Hear For A Lifetime Poster</td>
<td>‍♂️</td>
<td>‍♂️</td>
<td>‍♂️</td>
</tr>
<tr>
<td>Know The Risk Slide Rule</td>
<td>‍♂️</td>
<td>‍♂️</td>
<td>‍♂️</td>
</tr>
<tr>
<td>ER-200 Noise Dosimeter to measure sound exposure (Retail value $99)</td>
<td>‍♂️</td>
<td>‍♂️</td>
<td>‍♂️</td>
</tr>
<tr>
<td>Music Pro 9-15 Electronic Earplugs for Band Director (Retail value $299)</td>
<td>‍♂️</td>
<td>‍♂️</td>
<td>‍♂️</td>
</tr>
</tbody>
</table>

Education, awareness and protecting the hearing of young musicians are the foundation of the Adopt-a-Band Program. By providing products at a discount, Etymotic Research demonstrates a strong commitment to promoting healthy playing and listening habits.
Adopt-a-Band

• For the cost of pizza and a soda or a movie ticket your student will get ear plugs, string, case, hearing protection facts brochure, and slide rule
FREQUENTLY ASKED QUESTIONS

What makes earplugs high-fidelity?
Most earplugs reduce sound more in the high frequencies than the lows and mid-range, which produces unnatural, muffled sound. ETYMOTIC® High-fidelity earplugs reduce sound evenly at all frequencies so sound is unaltered, just quieter. No other earplugs, passive or electronic can prove that claim.

How much noise is too much?
Whether you are a professional or amateur musician, director, music educator, front-of-house crew, security personnel, music industry support staff or in the audience, you are often exposed to high levels of sound, sometimes for long periods.

Noise-induced hearing loss from excessive exposure to high-level sound depends on the intensity and duration of sound. Some persons are more susceptible to hearing loss from loud sound than others. The longer the exposure to high levels the greater the risk. Think: How long, how loud, how often?

How do I know which size ETY-Plugs to use?
Both sizes fit most ears, but the standard earplugs are more comfortable for many users with smaller ear canals. Studies by ETYMOTIC Research and an independent, accredited lab show that most users can achieve a seal with the standard fit. Ear size cannot be predicted by a person’s physical size, age or gender.

Are there any advantages of custom Musicians Earplugs™ vs ready-fit ETY-Plugs®?
ETY-Plugs® reduce sound by 20 dB and are ideal for a wide range of occupations, musical events and recreational activities. Musicians Earplugs™ have interchangeable filters that offer three levels of protection—9 dB, 15 dB and 25 dB—to accommodate different playing styles, sound levels and venues. Musicians Earplugs™ are the ultimate in comfort because they are customized.

What are the advantages of the Music+Pro™ electronic earplugs?
Music+PRO earplugs combine two active hearing protectors in a single device that allows natural hearing when sound levels are safe, provides protection when hearing is at risk and avoids the inconvenience of removing earplugs to hear soft sounds and speech. They are ready-fit, with no custom molds required and provide either 9 dB or 15 dB protection and amplification of soft sounds when desired.

WHICH EARPLUG IS RIGHT FOR ME?

CUSTOM+FIT EARPLUGS

**Musicians Earplugs™**
Musicians Earplugs™ available through hearing professionals are custom, high-fidelity earplugs developed by ETYMOTIC Research over 25 years ago. Earmold laboratories that make molds for Musicians Earplugs™ pass rigorous manufacturing requirements to ensure uniform quality and performance.

READY+FIT EARPLUGS

**ETY-Plugs®**
ETY-Plugs® ready-fit earplugs were developed as a low-cost alternative to Musicians Earplugs™ and remain the highest-fidelity non-custom earplugs available today.

**ELECTRONIC EARPLUGS**

**Music+PRO™**
Electronic earplugs provide either 9 dB or 15 dB protection at the flip of a switch. They reduce loud, continuous sound when it reaches unsafe levels and instantly protect from loud, percussive sounds. They provide 6 dB of amplification, enhancing soft passages or the speech of a director or other musicians.

**NOISE-INDUCED HEARING LOSS**

**Know the Risk**

- **Rock Concert**: 121 dB, 7 seconds, 6 dB, < 1 second, 10 seconds
- **Marching Band**: 115 dB, 10 seconds, 6 dB, 3.5 seconds
- **Concert**: 106 dB, 4 seconds, 6 dB, 4 seconds
- **Symphony**: 100 dB, 15 minutes, SAFE
- **Orchestra Pit**: 94 dB, 1 hour, SAFE

For every 3 dB over 85 dB, safe exposure time is reduced by half.

**Example**

- **85 dB 8 hours**
- **91 dB 2 hours**

**ABOUT ETYMOTIC**

ETYMOTIC Research is committed to protecting and enhancing the listening experience for musicians, music educators, audio professionals and consumers. For thirty years, ETYMOTIC has manufactured products to help people hear better now, and preserve their hearing for the future.

**ETYMOTIC RESEARCH®**

[Online address and contact information]

**Music+PRO™**

Custom-fit, ready-fit and electronic earplugs
- Sound is reduced evenly
- Communication is clear
- Fatigue from noise is reduced
- Richness of music is preserved

**ETYMOTIC • ERY-PRO • Music+**

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FACT More than 30 million Americans are exposed to hazardous sound levels on a regular basis. Exposure occurs in the workplace, in recreational settings, and at home. About one-third (10 million) can attribute their hearing loss, at least in part, to noise.

Source: National Institute on Deafness and Other Communication Disorders

THE GOOD NEWS
Noise-induced hearing loss can be prevented!

✓ Using high-fidelity earplugs reduces the risk of hearing damage from noise in the workplace, loud music at concerts and excessive noise at venues such as air shows, parades, athletic events and motor sports.

✓ For musicians, regular use of high-fidelity earplugs while practicing and performing protects against the cumulative effects of overexposure to loud sound throughout life.

✓ A little time may be required to acclimate to any earplugs. Ultimately, most musicians report that when they use high-fidelity earplugs they can hear their own instrument better, as well as the balance and blend with those around them.

ABOUT NOISE REDUCTION RATING (NRR)

NRR is a single number based on a formula required by the Environmental Protection Agency (EPA) that is supposed to indicate the amount of noise reduction a hearing protector provides. However, numerous studies have shown that NRR is a poor indicator of performance in the real world. Etymotic earplugs provide equal protection across frequencies, and NRR underestimates the amount of protection from flat attenuation earplugs. A proposed revision to NRR labeling regulation is currently under review.

NRR for ETY-Plugs is 12 dB, but measurements of properly inserted ETY-Plugs indicate they provide almost equal sound reduction of 20 dB across frequencies.

NRR for Etymotic’s electronic earplugs is 25 dB, but when deeply sealed they provide approximately 35-40 dB of sound reduction for very loud sounds.

ETY-Plugs use an ACCU-Tuned™ resonator and acoustic resistor to replicate the natural response of the ear canal. Their unique construction and proprietary sound path reduce sound levels evenly across the frequency range. When sound enters the earplug, it is reduced without changing sound quality—the same as the ear would hear it, only quieter.

- Reduces sound evenly by 20 decibels
- Reusable
- Low cost
- 2 sizes: standard and large

ETY-Plugs provide almost equal sound reduction across the range of hearing. Foam earplugs reduce the high frequencies, degrading the quality of speech and music.