Unlike a chance encounter with a blade or bit, the gradual and cumulative damage to hearing caused by loud noise makes this injury downright sneaky, but just as permanent. Prolonged exposure to noise over 85 decibels (dB)—about the level of a typical shop vac—can damage the hair cells that transmit vibrations to the nerve fibers within the ear. First, you’ll think you’ve “grown used” to a noise, and perhaps stop protecting your ears when you should be. But this only accelerates loss. By the time you notice the loss outside of the shop, it’s too late. Lucky for us, woodworking isn’t the only activity that is hazardous to your hearing health. The business of protecting people from life’s various booms, roars, and crashes has resulted in an array of comfortable and affordable hearing protection options. If you’re tired of removing and reinserting foam plugs, or if your muffs are cracked and stiff, now’s the time to step up. Added comfort and convenience ensures that you’ll put these new products on when you don’t need them so that you’re wearing them for all of the times when you do.

**How loud is too loud?**

Sound is measured in decibels (dB). Louder sounds max out safe exposure limits, but long-term exposure to lower levels can be equally damaging. To be safe, you should don protection when approaching the 85dB danger zone.
Ear muffs are a popular and practical solution for noisy operations. In addition to offering some of the highest noise reduction ratings, muffs are easy to put on and take off. Unfortunately, many hang idle alongside machines waiting to be worn, and that’s when hearing damage can happen.

The problem with old-school muffs is that they’re hot and heavy, and wearing them cuts off contact with the outside world. In comparison, modern muffs are lighter, slimmer, and available in different sizes. A better-fitting muff ensures that the actual hearing protection matches the stated NRR (Noise Reduction Rating) and encourages users to keep them on, even when the big machines aren’t running. Some of these new muffs are designed to keep you connected with the outside world. Pro Ears’ electronic ear muffs (see main photo, left), have microphones that amplify safe-level sounds and cut out when the decibels go above the danger zone. This feature is handy in a shared shop where you might not always see when somebody’s about to turn on a saw.

By using Bluetooth technology, 3M’s WorkTunes offer another solution for woodworkers who work alone, but want to stay connected. Linked to your smartphone, the rechargeable muffs allow you to stream music and take calls.
Plugs: Better fit, selective filtering

Disposable foam plugs are a handy solution for shop visitors, but they don’t make as much sense in a one-person workshop. Like muffls, disposable plugs can make you feel as if you’re stuck in a sound booth. And as the name suggests, disposables are designed for one-time use. Recycled foam plugs lose their elasticity and ability to protect, and can harbor bacteria.

High-tech plugs offer options not found in foam counterparts. For starters, the silicone flanges don’t need flattening (often by dirty fingers) before insertion, and they’re washable. Premium plugs include different-sized flanges for fine-tuning the fit. These plugs also are available in a range of noise-reduction levels. High-fidelity plugs are designed to offer less protection, but enable the wearer to hear music and conversation, encouraging all-day use. The short stem and low-profile design enables the user to wear muffls for additional protection when necessary. SureFire’s Sonic Defenders combine the convenience of high-fidelity plugs with a protection level that matches most muffls when the caps are closed.

Custom-fitted plugs offer the best protection. In the past, this meant a visit to a hearing specialist. Thanks to modern-day thermoplastics, you can do the job at home. Decibullz offers the noise protection provided by custom-fit plugs for less than the price a doctor’s visit.

World’s first Bluetooth Earplug Headphones

Wireless earphones have become a ubiquitous smartphone accessory. IsoTunes look and function like the same versions that the hipsters use—you can listen to music and answer calls—but they also provide hearing protection equal to plugs. An additional safety benefit is that there are no wires to dangle near machines.

Iso’s don’t offer the sound quality found in regular buds, but that’s not what they’re supposed to do. (In order to be OSHA-compliant, the volume level tops out at 85dB.) Another plus: the passive-protection plugs still work when the battery’s dead.
In the past, hearing bands weren’t much more than tapered plugs on a plastic hoop. Despite their pop-in/pop-out convenience, they didn’t generate much of a following with woodworkers. Users discovered that disposable bands offer less protection than other options, and the cost of disposables quickly added up. Today’s reusable high-tech bands are different.

Unlike the simple plastic strap on a disposable hearing band, the hollow headband on SensGard Ear Chambers does the real work. These foam-tipped tubes serve as “passive resonant chambers” allowing some sound into the ear, while diverting and canceling out louder noises. The wider bands provide more protection, but I prefer the smaller bands for everyday use because they let in more sound. (By enabling me to hear music and normal conversation, I wear them even when they may not be needed.)

Modern technology offers an affordable option for woodworkers who formerly ignored decibel-related warnings and now struggle with some hearing loss. Designed for hunters, Pro Ears Stealth Bands combine 5× hearing amplification, with protection from loud noises. The band weighs in at only 0.7 ounces, but still offers 18 hours of run time from a single charge.

What you need to know about NRR
Hearing protection products have a Noise Reduction Rating (NRR) on the side of the package. This number indicates the product’s hearing potential. In theory, if a tool generates 100dB and the hearing protection has a 31-dB NRR, then the noise level reaching your ear should be around 69dB.

Unfortunately, lab results don’t match real world conditions. Actual performance can be affected by fit, the product’s condition, and the user’s motivation to use it when it’s needed. The best protectors are the ones that you wear regularly.
SUBSCRIBE!

2 YEARS for $29.99!

go to woodcraftmagazine.com and click SUBSCRIBE

-or-

Complete the form below and mail in an envelope addressed to:

WOODCRAFT MAGAZINE
PO BOX 7020
PARKERSBURG WV 26102-9916

□ Payment Enclosed
Name
Address
City
State Zip
Country
E-mail

Send in now to get
2 Years for $29.99!

or go to woodcraftmagazine.com and click SUBSCRIBE

By providing my e-mail address, I am indicating I'd like to receive information about my subscription and other offers from Woodcraft Magazine via e-mail.

Outside of the U.S and Canada add $30 for postage.
Foreign orders must be prepaid. Payment in U.S. Funds only.