

Devon Youth Jazz Orchestras Advice to Parents and Ensemble Members on Ear Protection.

Recent sound level readings during rehearsal showed that the peak sound levels taken near the ears of members peaked at 99 Decibels (scale A) for DYJO 1 and slightly lower for DYJO 2. The areas of the orchestras that showed the highest levels were the front row of the brass section, the saxophone groups and anywhere near the drums. There is no easily defined safe limit as the risk of hearing loss from noise damage depends on personal susceptibility, the sound level and the duration of exposure. However any level over 90dB for any length of time can cause deafness. The percussive nature of the drums cause damage in the same way that firing a rifle does, while the sustained meter readings (A scale) may understate the risk here.

There are a number of ways that noise induced deafness can demonstrate itself. The first is a temporary deadening of hearing after exposure. Buzzing in the ears (tinnitus) suggests damage, while more prolonged exposure leads to permanent loss of hearing, especially at the 4000Hz frequency at which consonants are pitched, leading to difficulty understanding speech. Uncomfortable sensitivity to noise and hearing two or more pitches rather than one can also occur.

This means that parents and players should consider ear protection. Some members of both ensembles are already using ear inserts, and certainly anyone who is aware of tinnitus or deadening of hearing after performing should use protection. Musicians are often resistant to these for a variety of reasons including discomfort, or sense of distortion of the music. The best quality filters do not alter the music quality and have a flat response curve, meaning that they reduce all frequencies by the same amount.

Our recommendation is that all ensemble members should have protection available for use either all the time or more selectively when sound levels increase. The level of noise reduction should be around 15dB. All drummers should use protection, especially when rehearsing in small rooms at home.

Earplugs in the £6-£20 range (available from Amazon and other suppliers) include:

Alpine Music Safe Pro Filter Ear Plugs which come with a choice of filters.
Etymotic ER20. Etymotic also make a range of filters. 20 means 20 dB reduction.
Elacin ER20S musicians & gig hearing protection. These appear to be identical to Etymotic.

Some come in different sizes, some can be trimmed to size.

More expensive fitted ear plugs made from a mould taken of the ear canal into which is inserted a filter are available from hearing aid retailers. The filters can be selected between 8 and 25 dB. Total cost is £160-200. Proguard and Etymotic are two companies that supply these but the quoted cost of £85-110 (ex Vat) does not include the fitting of personal earmoulds.

For drummers at home, ear defenders available from DIY stores such as B&Q for about £8 or mouldable foam inserts work well.

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