

Noisy Toys

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By Christine Cubelo, COHC

With today's rising noise pollution and rates of sociococosis, youth are exposed to more loud noise than prior generations. In spite of increased societal awareness of the effects of hazardous noise, the hearing health of the younger population remains low. One study cited that while as many as 1 in 6 adolescents in the U.S. have high frequency hearing loss, 96.3% of parents in a research poll of 716 did not perceive their children to have any risk of hearing problems.¹ Another research group found that only 8% out of 9,693 youths surveyed perceived hearing loss as a "big problem," while a majority of them reported experiencing tinnitus after exposure to loud music.²

The Problem

One can assume that, like healthy eating habits, good hearing health habits develop during a child's formative years in the home. Part of a child's social and motor development is achieved through the use of toys, some of which use auditory stimulation to capture a child's attention. Yet, some of these common items found in the home can be the source of hazardous noise exposure. In 2013, researchers measured the noise levels of 200 toys and found that 98% of them had measured sound levels greater than 85 decibels at a distance of an arm's length away.³ Sound at this level exceeds the standards established by The National Institute for Occupational Safety and Health as a threshold for safe noise exposure.⁴ These potentially hazardous exposures to noise put children at risk of early noise induced hearing loss, which can have detrimental effects on school performance, behavior and perhaps lead to difficulty transitioning into the workforce in adulthood.

Current Standards

Without a federally mandated Hearing Conservation Program for children, we rely on sources such as the Consumer Product Safety Commission (CPSC), Centers for Disease Control (CDC), and other national educational programs. The CPSC has contributed positively to early hearing loss prevention by publishing the Laboratory Test Manual for Toy Testing in 2010, which delineates a variety of methods to check for compliance with toy safety regulations. However, this guide has limited applicability to noise exposure from loud toys as the recommended limitations were established with only continuous and impulse noise in mind, and does not



provide clear guidance on banning noise hazardous products, as there are for potentially sharp toys or choking hazards.⁵ The CPSC also excludes toys like xylophones, rattles and electronics from sound testing, further limiting its utility.

The CPSC also refers toy manufacturers to the American Society for Testing and Materials (ASTM), which develops and governs standard policies for product development. Manufacturers are responsible for selecting which safety standards apply to their products, and submit their products to a CPSC-accredited laboratory for testing.⁶ While CPSC has effectively ensured a consistent means of toy product testing, the general public's ability to research potential purchases is limited by controlled availability of ASTM publications and toy test reports.

The CDC has published an article that discusses implementation of hearing health programs for school districts. However, this document only makes references to national regulatory policies for school employees while pointing to recommendations from the American Academy of Pediatrics for students.⁷ Despite implementation of well-written programs in many districts, one study found that only 16% of students polled reported ever having received educational material about hearing loss prevention.²

Many hearing conservation educational programs and resources exist in the US, many of which are free to the public.⁸ Additionally, various articles posted on health blogs provide general information for making toy purchases. For example, UC Irvine Health introduces parents to the "arm test" or "talk test," which is a subjective observation of a toy's loudness performed by holding the toy at an arm's length away from the head.⁹ If the toy is deemed too loud, parents are recommended to place tape or glue over toy speakers or volume controls. While altering a toy's volume controls may be effective in many cases, this method leaves room for variability based on individual parental judgment.

Universal Symbol for Improved Awareness

Generally, noise hazardous workspaces are labeled with appropriate signage according to standards set forth by the Code of Federal Regulations and Occupational Safety and Health Administration. Mandatory warning labels included on toys currently account for when they are sharp or pose a choking hazard.⁵ Consumers and caregivers should urge governing agencies to implement a universal noise hazard warning label for toys equal to those warnings already in place. A noise warning advertised on toys based on sound measurements in the test laboratory would help parents make more objective decisions about purchases for their children. This measure would also provoke greater attention to hearing as an important aspect of one's health and lead individuals to seek out the services from the multiple educational programs available.

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