



Mott Poll Report

February 26, 2024
Volume 44
Issue 6

Can They Hear You Now: Noise and Headphone Use in Children

Excessive or intense noise can be damaging to a child's ears. When children wear headphones and earbuds, it can be difficult for parents to know how much noise exposure is occurring. The C.S. Mott Children's Hospital National Poll on Children's Health asked a national sample of parents of children 5-12 years about their child's use of headphones and earbuds.

More parents of children aged 9-12 years than 5-8 years report their child uses headphones or earbuds (79% vs 53%; 64% overall). These parents say their child uses these audio devices at home (68%), at school (60%), in the car (41%), on an airplane (24%), on the school bus (6%), outside (5%) or in bed when going to sleep (4%). Half of parents (49%) agree that using headphones or earbuds helps keep their child entertained.

Among parents who say their child uses headphones or earbuds, 16% say on a typical day their child uses audio devices for at least 2 hours, 24% for 1-2 hours, 52% for less than an hour, and 8% none. More parents of children aged 9-12 years than 5-8 years report at least 2 hours of daily use (25% vs 6%). Over half of parents (57%) say they try to limit the amount of time their child uses headphones or earbuds, using strategies such as asking the child to take a break (27%), having set hours for use (27%), using a timer (12%) and reminding the child to take an hourly break (9%); however, 28% do not use a particular strategy.

Most parents (77%) agree that headphones are fine for children as long as the volume isn't too loud. Parents report they try to limit the volume of their child's audio devices by using specific devices (40%) such as volume-limiting headphones (31%) and/or noise-cancelling headphones (14%), or using device features to set volume limits on their child's devices (16%). Some parents just occasionally check and lower the volume (23%), while 28% do not use any of these strategies to limit the volume.

Parents whose child uses headphones for ≥2 hours a day are less likely to set time or volume limits, compared to parents who report less headphone use for their child. Parents who report ≥2 hours of daily use are more likely to agree their child uses audio devices more than they should (39% vs 6%), that audio devices help keep their child entertained (73% vs 45%), and that they are concerned about their child experiencing hearing loss in the future due to headphone and earbud use (26% vs 14%).

Parent strategies to protect kids' hearing

% of parents using the following strategy to limit the volume on their 5-12 year old's audio devices

Device choices

Volume-limiting headphones	31%
Noise-cancelling headphones	14%

Device settings

Set volume limits on devices 16%

Parental supervision

Occasionally check and lower volume 23%



Report Highlights

2 in 3 parents say their child uses headphones or earbuds.

Among parents whose child uses headphones or earbuds, 1 in 6 say a typical day for their child includes at least 2 hours using an audio device.

Only half of parents have tried to limit their child's usage of audio devices.

Data Source & Methods

This report presents findings from a nationally representative household survey conducted exclusively by Ipsos Public Affairs, LLC (Ipsos) for C.S. Mott Children's Hospital. The survey was administered in August 2023 to a randomly selected, stratified group of adults who were parents of at least one child age 0-18 years living in their household (n=2,044). Adults were selected from Ipsos's web-enabled KnowledgePanel® that closely resembles the U.S. population. The sample was subsequently weighted to reflect population figures from the Census Bureau. The survey completion rate was 62% among panel members contacted to participate. This report is based on responses from 1,152 parents with at least one child age 5-12. The margin of error for results presented in this report is ±1 to 4 percentage points and higher among subgroups.

A publication from C.S. Mott Children's Hospital, the University of Michigan Department of Pediatrics, and the Susan B. Meister Child Health Evaluation and Research (CHEAR) Center.

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Implications

Noise exposure among children can affect their sleep, academic learning, language development, stress levels and even blood pressure. At extreme levels, noise exposure can lead to irreversible hearing loss along with other negative health consequences. Since children's ear canals are much smaller than adults, perceived sound levels are intensified, increasing their vulnerability to noise damage. Thus, the proliferation of personal listening devices, many marketed to young children, puts them at increased risk of this preventable problem. Moreover, because the issue of noise exposure and audio device use among children is relatively new, the effects of such usage on hearing and hearing loss have not been fully documented.

This Mott Poll highlights the high prevalence of using audio devices such as headphones and earbuds among school-aged children. Once thought to be primarily a concern for teens and young adults, these findings emphasize the widespread use of headphones and earbuds among younger children. Parents reported their children use audio devices at home and at school, in the car, on airplanes and school buses, outside, and even when going to sleep.

Parents in this poll indicated that headphones and earbuds can be helpful in keeping children entertained. Many parents give their child an audio device when they are in public or when traveling; however, when external sounds are loud (such as on an airplane or bus), children may turn up the volume on their audio device so they can still hear. This increases the noise exposure for the child.

The risk of hearing damage is linked to both the volume and the duration of noise exposure. Loud noises above 120 decibels (such as a jetliner taking off) can cause immediate harm. Over a prolonged period of time, noise above 70 decibels (such as a lawnmower, hair dryer, or audio device at full volume) may start to damage hearing. Since it may be difficult for parents to estimate the decibel level of their child's audio device, a helpful strategy is to speak in a normal voice from a short distance away; if the child cannot hear, then the volume is too loud.

Parents should consider the risk of noise exposure when purchasing audio devices for their child. Parents can check the information on device packages to identify products that limit the volume and avoid products a heavy emphasis on sound levels. Of note, many products marketed as 'Kid Safe' do not limit the volume to 75 decibels. Noise-cancelling devices may help to deter the child from turning up the volume; however, use of noise cancelling devices should be avoided when the child is engaged in activities where it is important to hear one's surroundings, such as walking or bike riding.

On a daily basis, parents can minimize the negative impact of audio device usage by monitoring and adjusting the child's volume and time on devices. Limiting the child's time using audio devices can be done by setting specific hours for device use or using a timer to keep track of device time. Many parents monitor time and volume in an informal way, but this requires that parents remember to check on their child's audio device use. Therefore, the most effective strategies may be consistent scheduling of device time, including daily "device-free" time, and putting away or locking up the child's audio devices when time limits are up. In addition, parents should not allow use of audio devices when children are sleeping or going to sleep. Using parental control features can help implement these limits.

If parents feel their child may be at risk of hearing loss due to using audio devices, they may want to bring the child to their pediatrician, an audiologist, or an ENT (ear, nose and throat) specialist. Early signs of hearing loss may include asking for repetition, hearing ringing noises often, speaking loudly to people nearby, delayed speech, or lack of reaction to loud noises. Healthcare providers may also help by offering a simple explanation about hearing loss to the child, to help them understand the importance of limiting their use of audio devices.