

# Early screening vital in helping the deaf

Personal music players identified as major culprit in adolescent hearing loss

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**H**ELEN Keller said deafness was a worse misfortune than blindness because blindness separated us from things while deafness separated us from people.

Deafness is not a loss of life, but the loss of access to life through the natural means of hearing as the key to communication.

Loss of hearing is classified across degrees of severity and the frequencies (pitch) of the sounds humans can hear.

Deafness commonly refers to the severe and profound degrees of hearing loss, but any degree of loss is bound to cause some form of disability.

According to the World Health Organisation, it is the most common chronic disability in the world.

In South Africa estimates suggest that 3.3 million people suffer from permanent disabling hearing loss, constituting one in four adults over 45 years and one in three adults over 65.

Hearing loss is also a common childhood disability.

According to evidence I gathered, close to 6 000 babies are born with permanent hearing loss every year in South Africa.

This means 17 babies are born with hearing loss across the country every day.

Because it cannot be detected in babies without using objective physiologic screening methods offered by audiologists, hearing losses are mostly identified late after critical developmental periods for language development have been lost.

Late identification of hearing loss is associated with significant delays in language, speech and subsequent long-term effects on academic and vocational outcomes.

Surveys of newborn hearing screening undertaken by my team and me revealed that less than 10 percent of newborns would have the opportunity to get their hearing screened in the first year of life.

In contrast, countries like the US, Australia and the UK screen virtually every newborn before they leave the hospital.

Parents of newborns must therefore be informed to request screening by an audiologist if it was not offered.

Family members and even health-care providers often give poorly informed advice to parents to wait and see how the child develops and responds to sound.

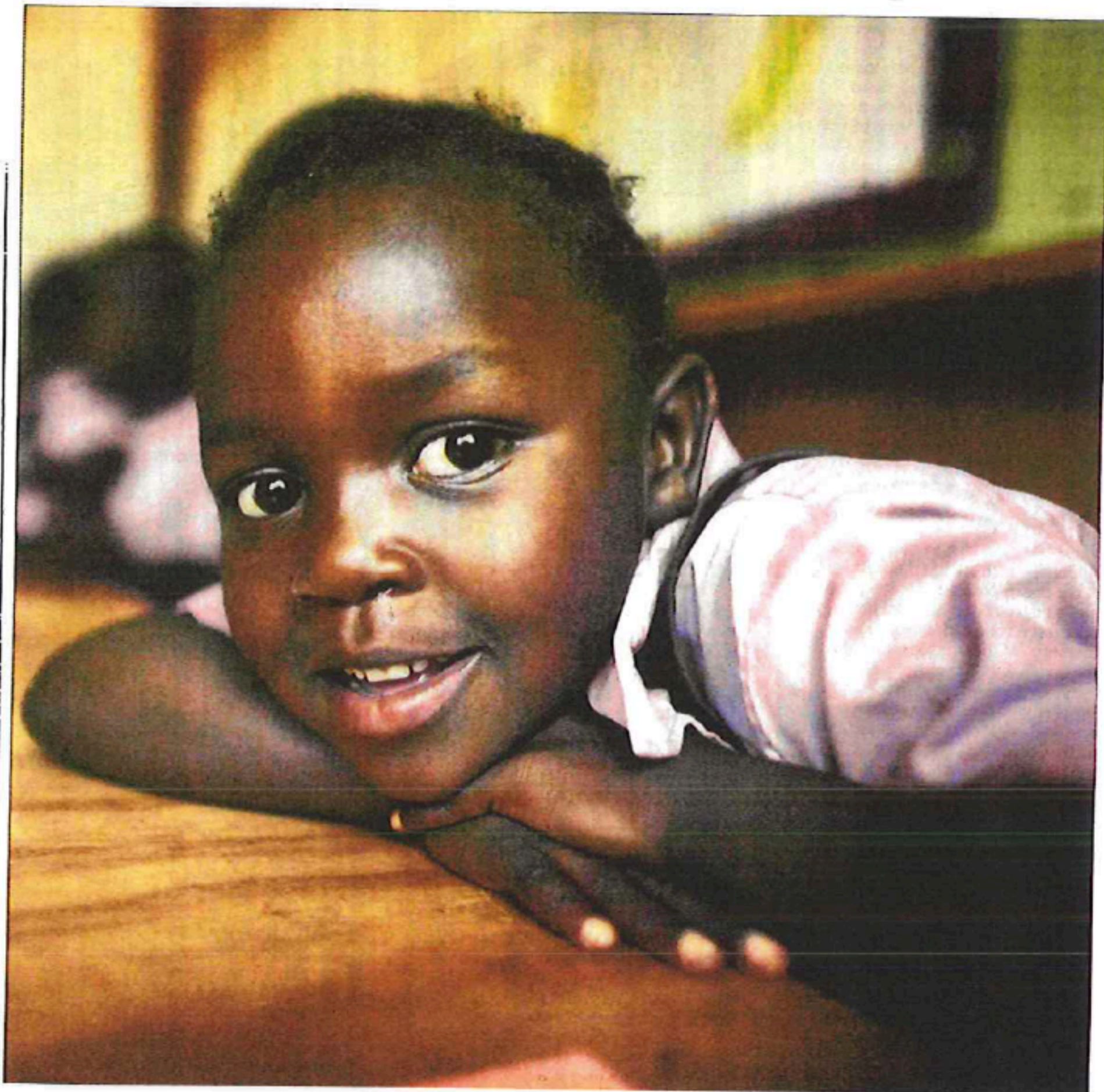
As children grow older important risk factors that should prompt action to assess their hearing include inconsistent responses to sound and delayed speech and language development.

It is never too early to have a child's hearing assessed.

Another important time to watch for hearing in children is during school entry.

All formal learning activities in typical school environments are mediated through the sense of hearing, and any loss in hearing sensitivity therefore constitutes a major and, if unidentified, an often insurmountable barrier to effective learning.

Even minimal and unilateral hearing losses have been associated with poor educational test performance, higher incidence of failed grades and greater dysfunction in areas such as behaviour, energy, stress, social support, self-esteem and socio-emotional aspects.



**FM LISTENING:** Stacy Musimbi, four, a deaf student, attends the deaf unit programme at the Little Rock Inclusive Early Childhood Development Centre in Nairobi. Little Rock is one of the few schools providing education to children with special needs in Kenya. **PICTURE:** SAMANTHA SAS/REUTERS

Despite the recently launched Integrated School Health Policy requiring hearing screening of all 1.2 million Grade 1 pupils, most are not being screened.

The departments of Health and Basic Education are however working hard towards rolling out widespread screening, starting at the most underserved school districts.

Evidence suggests that as children progress to adolescence, the risk of acquired hearing loss is greater than in previous generations.

Noise has been cited as a major cause of hearing loss.

Although hearing loss has previously been ascribed mostly to occupational causes such as working in factories or mines where loud noise is generated, in adolescents and young adults recreational noise has been cited. The typical sound intensity (loudness) of personal music players used by teenagers is at potentially hazardous levels that can result in permanent hearing damage. An increasing body of research evidence is demonstrating the risk of noise-induced hearing loss in teenagers using music

players at excessively loud volume levels.

Furthermore, many of the recreational activities which young adults and adolescents are typically exposed to like movies, parties, nightclubs and even sporting events, pose a risk of hearing damage.

During the World Cup in 2010, I performed measurements of the vuvuzela's noise levels and found that one direct blow to someone's ear was likely to cause permanent hearing damage.

In my research, I also measured the hearing levels at a typical premier league soccer match and the effect of the stadium noise on spectators' hearing.

Results confirmed noise levels above those allowed in occupational environments without personal noise protection (eg earmuffs) and showed significantly decreased hearing ability after a single soccer match. Apart from noise exposure, the major cause of hearing loss is ageing.

With average life expectancy increasing, hearing loss is a rapidly growing and major global health care concern.

As in children, early detection of hearing

loss is essential to ensure best outcomes with available interventions in adults.

Because age and noise-related hearing loss is usually gradual, those who have it slowly become accustomed to the reduced ability to hear and therefore are often unaware that they have a hearing problem.

Only when they are in difficult listening environments like restaurants does this become clearer to them and those around them. Despite the fact that there is no cure for permanent hearing loss, current treatments are effective.

Audiologists can counsel patients on available treatment options that may include assistive listening devices, hearing aids and cochlear implants, as well as a variety of rehabilitation and counselling strategies.

The best advice with hearing loss is that it's never too soon to test.

Help, which has been proven to be effective, is available.

● Professor De Wet Swanepoel is associate professor in audiology at the Department of Communication Pathology at the University of Pretoria. September is Deaf Awareness Month in South Africa.