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EAR DISEASE AND HEARING PROBLEMS - FM RADIOS HELP SCHOOL CHILDREN HEAR

*Sue Quinn

Ear disease and hearing problems are alarmingly widespread in Aboriginal children in the Northern Territory. School hearing screening results indicate that between 25% and 50% of Aboriginal children may suffer from middle ear disease and associated hearing loss. This means that up to half the children in any classroom cannot hear their teacher properly.

HOW THE EAR HEARS

The ear is divided into three sections:

The Outer Ear - collects sounds and directs them down the ear canal to the ear drum.

The Middle Ear - is a small space behind the ear drum about the size of a grape or a cherry. Normally it is filled with air and has three tiny bones hinged to the ear drum which carry the sound energy to the inner ear. At the back of the nose and throat, a tube connects to the middle ear and opens regularly to keep the correct air pressure in the middle ear.

The Inner Ear - is about the size of a pea. It is very delicate and is protected by the bones of the skull. The inner ear changes sounds into electrical signals and sends them to the brain where they are recognised and understood.

MIDDLE EAR DISEASE

When the middle ear becomes infected, pus discharge can develop, fill the air space and burst through the ear drum. With chronic middle ear disease, the pus discharge is sometimes visible in the outer ear.

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HEALTHY EARS HEAR BETTER

An infected ear with pus running out of it needs daily cleaning and treatment until it is better. The ear infection is visible but the hearing loss which it causes is invisible. At school a child with middle ear disease may seem lazy, not interested in learning, restless or disruptive. This behaviour can be caused by hearing problems. A child who repeatedly has trouble hearing the teacher may mistakenly be labelled as a slow learner or a naughty child.

Children with chronic middle ear infections should have their hearing tested. If a hearing loss is found then the child will need help at school to hear the teacher and to learn to read and write.

Teachers need to be aware of which children in their class have middle ear disease and hearing loss. Long term hearing problems can significantly delay a child's progress with school work and prevent educational success.

HOW TO HELP HEARING IMPAIRED CHILDREN IN THE CLASSROOM

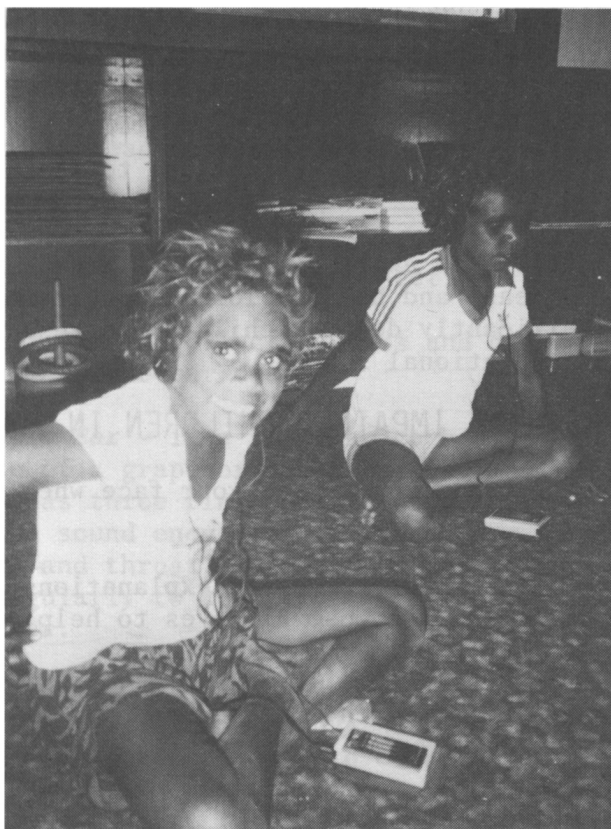
- Make sure the children can see your face when you are speaking.
- Use visual information to assist explanations; a hearing-impaired child needs to use his eyes to help understand what he does not hear.
- Be supportive of children who need to use amplification in the classroom.

FM RADIO CLASSROOM AMPLIFICATION

A "hearing aid" which is suitable for school children with chronic middle ear disease uses the *Walkman* style radios. The teacher wears an FM microphone and children listen to the teacher through FM radios and lightweight headphones. Hearing impaired children can turn up their radio until they can hear the teacher properly.

Teachers who use FM radio amplification equipment in the classroom report that "children work better with the radios", and "the radios improve children's listening behaviour". Teachers say FM radios are particularly useful in language lessons such as

reading, writing, spelling, story-telling, and that children respond to instructions more quickly and confidently when the radios are used.



Hearing impaired Grade 4 children at Yuendumu "tune in" to their teacher's FM radio microphone, using their Sony Walkman FM radios.