



Otitis Media in Young Children With Disabilities—Practical Strategies

FPG Snapshot

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Otitis media with effusion (OME) is one of the most common illnesses of early childhood. Children with many developmental disabilities (e.g., Down syndrome, Williams syndrome, Apert syndrome, fragile X syndrome, Turner's syndrome, and cleft palate) are at increased risk for OME. Because OME is typically accompanied by a mild to moderate fluctuating hearing loss, children with disabilities who are already at risk for delays in language learning may be at an even greater risk for language learning difficulties because of OME. The prevalence of OME was studied in 14 children between 8 and 66 months with developmental disabilities attending center-based childcare. The children were examined every other week using tympanometry for 7 months. Consistent with studies of typically developing children, young children demonstrated more OME than did older children. Children with Down syndrome had the highest incidence of OME regardless of age. Early interventionists can be an important resource to families by sharing information about OME, and strategies for promoting healthy settings, encouraging children's listening, language learning and early literacy skills in both home and classroom settings.

(This *Snapshot* includes a number of practical suggestions for interventionists and families.)

WHO'S AT RISK AND WHAT IS THE CONCERN?

Studies have shown that some children are at higher risk for otitis media. Those at risk may include children with some developmental disorders such as Down syndrome, Williams syndrome, Apert syndrome, fragile X syndrome, Turner syndrome, cleft palate, and autism; as well as all children attending childcare.

It has been hypothesized that the link between OME and speech and language development is related to the fluctuating hearing loss that accompanies OME. Children with OME typically have a mild to moderate conductive hearing loss. The hearing loss would be about equivalent to putting your hands over your ears. A child who does not hear well may be less interactive and responsive and this could possibly affect the child's interactions with caregivers, and decreasing opportunities for language development.

This link, however, is controversial, with some studies finding a relationship between OME and language development and other studies not finding this link in typically development children.

A pilot study of 14 children with special needs attending a university-based inclusive childcare program examined OME incidence over 7 months. Pilot data show that children with disabilities have patterns of OME similar to those of typically developing children, with an increased burden at younger ages and resolution at about 24-30 months. This makes OME an important issue in planning early intervention for young children with disabilities.

IMPLICATIONS FOR EARLY INTERVENTIONISTS

A critical part of the assessment plan for children must be to monitor the speech and language of children and to get a hearing assessment if hearing loss is suspected. An audiologic exam is an integral part of the assessment for OME.

The American Academy of Pediatrics considers examination for signs of recurrent otitis media an essential part of developmental screening. The Academy specifically recommends checking for OME at each visit for children with Down syndrome, Turner syndrome and Williams syndrome beginning at 1 month of age.

Often, OME does not present specific signs or symptoms. The early interventionist or parent may notice that the child does not seem to be paying attention, may not respond when spoken to, or may sit closer to the TV or music. These may all be signs of the temporary fluctuating hearing loss associated with OME.

If a child has an ear infection, the signs will be more acute. If a child has an ear infection, the health care provider will probably prescribe a course of antibiotics. It is extremely important that the child take the medication on time and complete the entire course of medication.

Once the acute infection has resolved, the child may have fluid remaining in his ear. If fluid in the ear persists, a hearing assessment is recommended. Placement of tubes may or may not be recommended. Tubes will help the child's hearing return to normal because they prevent fluid in the middle ear.

This Snapshot is based on "Otitis Media in Young Children With Disabilities" by Susan Zeisel and Joanne Roberts of the FPG Child Development Institute at UNC-Chapel Hill. It was published in *Infants and Young Children*, 2003, Vol. 16, No. 2, pp. 106-119.

PROMOTING A HEALTHY SETTING

- Wash child and adult hands after blowing noses or going to the bathroom.
- Clean toys that have been in a child's mouth before another child plays with them.
- Follow directions for medicine — give it on time and for the entire time it is recommended.
- If possible, breast-feed for at least the first 4-6 months of life to reduce the chance of otitis media.
- Bottle-feed in an upright or slightly leaning position. Cuddle the child in your lap with his head raised up. A child should **not** be put to bed with a bottle. A bottle should **not** be propped in bed. These practices may cause fluid from the bottle to go up a small tube leading to the middle ear, causing ear fluid.
- Keep children away from smoke. Cigarette smoke increases a child's chances of middle ear disease.
- If possible, put children in small rather than large groups of children. Colds pass more easily in large groups, and colds in young children can lead to middle ear fluid.

PROMOTING LANGUAGE LEARNING

- Get down to your child's eye level when talking.
- Talk about familiar things — snacks, pets, rain — anything your child knows about and is interested in.
- Talk with your child during mealtimes, baths, and throughout the day.
- Play interactive games and pause for your child to respond.
- When your child talks, respond to what the child is talking about immediately and with interest.
- Add to what the child is saying by using more words.
- Praise the child for talking even if the speech is unclear.

- Take your child many places (library, supermarket, park) and talk about what's there.
- Say the names of things your child sees or plays with and describe things that happen.
- Talk to preschoolers about what they did, what they will do, why things happen, and their feelings.
- Encourage children to talk to one another.
- Repeat language activities so that children learn what to expect.

PROMOTING LISTENING

Help children hear and understand your speech

- Get within 3 feet of the child before speaking.
 - Get your child's attention before speaking.
 - Face the child and speak clearly with a normal tone and normal loudness.
 - Use visual clues such as moving your hands and showing pictures in addition to using speech.
 - Seat your child near adults and children who are speaking.
 - Speak clearly and repeat important words, but use natural speaking tones and patterns.
 - Check often to make sure the child understand what is being said.
 - Stand still when talking to your child to decrease distractions.
- Decrease background noise, especially for children with hearing loss
- Turn off unnecessary music and TV in the background.
 - Fix noisy appliances such as heaters or air conditioners.
 - Limit play with noisy toys.
 - Encourage teachers to create quiet areas. For example, use dividers for small group play and reading.
 - Close windows and doors when it is noisy outside.

PROMOTING EARLY LITERACY TRAINING

- Read often to children, describing and explaining pictures and referring to child's own experiences. ("Spot is like your dog.").
- Read slowly to children, pausing at times to ask questions ("What do you think will happen next?").
- Give children books and magazines
- Read out loud traffic and store signs, labels on packages, and words on a menu.
- Let children draw and write using crayons, markers, and pencils.
- Sing simple songs with repeated words and phrases.
- Talk about sounds and names of letters.
- Play sound, alphabet, and word games that focus on beginning and ending sounds of words.
- Play word and listening games to encourage children to listen to familiar patterns and fill in words.
- For older preschoolers, play rhyming games such as hat, cat, and bat.

Conclusion

OME is a common illness of early childhood. While it is unclear whether chronic OME leads to language problems, OME may present an increased risk to speech and language development for children with developmental disabilities. This is particularly important in light of the increased risk that a hearing loss may present to children already at high risk of language and learning delays. At least one researcher has suggested that aggressive treatment with ventilation tubes may be prudent. Further studies are needed to examine this issue.

However, early interventionists can help create an environment that promotes good listening and creates opportunities for language learning. ■



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