

**Online Table A. Conditions That May Cause Ear Pressure or Fullness but Little or No Ear Pain**

<i>Cause</i>	<i>History</i>	<i>Physical findings</i>	<i>Comments</i>
Acoustic neuroma*	Unilateral hearing loss Unilateral tinnitus "Imbalance" (not usually true vertigo)	Unilateral or asymmetric sensorineural hearing loss	Neurofibromatosis is a risk factor
Fungal otitis externa	Discomfort, fullness, or itching	White or black semisolid discharge	May occur after treatment for bacterial otitis externa Candidiasis may occur in patients using hearing aids
Meniere's disease	Recurrent episodic vertigo Unilateral hearing loss Tinnitus	Sensorineural hearing loss	May have ear fullness for up to several hours
Cholesteatoma*	Otorrhea (may be foul smelling) Unilateral hearing loss Vertigo History of middle ear disease	Superior retraction pocket or crusting	Rarely causes pain Easy to miss because superior aspect of tympanic membrane can be difficult to visualize
Serous otitis media, retracted tympanic membrane (atelectatic middle ear)	Decreased hearing acuity Sense of ear fullness	Tympanic membrane may be retracted Yellow or orange discoloration May have clear fluid with air-fluid level or bubbles	Often associated with abnormal tympanometry or pneumatic otoscopy
Cerumen impaction	Pain usually described as pressure or fullness, but can be more severe if water causes swelling and pressure on tympanic membrane	Cerumen occludes auditory canal	Can result from attempts to clean ears with cotton applicators
Eustachian tube dysfunction	Often accompanied by upper respiratory congestion	May have retracted tympanic membrane	Tends to be overused as a diagnostic label when physical examination findings are absent

\*—Rule out "worst-case scenario" diagnosis (see Table 5).

Information from Fisher EW, Parikh AA, Harcourt JP, Wright A. The burden of screening for acoustic neuroma: asymmetric otological symptoms in the ENT clinic. *Clin Otolaryngol Allied Sci.* 1994;19(1):19-21; Ho T, Vrabec JT, Yoo D, Coker NJ. Otomycosis: clinical features and treatment implications. *Otolaryngol Head Neck Surg.* 2006;135(5):787-791; and Rosenfeld RM, Culpepper L, Doyle KJ, et al., for the American Academy of Pediatrics Subcommittee on Otitis Media with Effusion, American Academy of Family Physicians, and American Academy of Otolaryngology—Head and Neck Surgery. Clinical practice guideline: otitis media with effusion. *Otolaryngol Head Neck Surg.* 2004;130 (5 suppl):S95-S118.

## Ear Pain



Online Figure A. Traction on the auricle.



Online Figure B. Pressure on the tragus.



Online Figure C. Palpation of the temporomandibular joint.



Online Figure D. Otitis media.