

FIGURE 43-1 Ear anatomy. **A.** Drawing of modified coronal section through external ear and temporal bone, with structures of the middle and inner ear demonstrated. **B.** High-resolution view of inner ear.

Cholesteatoma, a benign tumor composed of stratified squamous epithelium in the middle ear or mastoid, occurs frequently in adults. This is a slowly growing lesion that destroys bone and normal ear tissue. Theories of pathogenesis include traumatic immigration and invasion of squamous epithelium through a retraction pocket, implantation of squamous epithelia in the middle ear through a perforation or surgery, and metaplasia following chronic infection and irritation.

On examination, there is often a perforation of the tympanic membrane filled with cheesy white squamous debris. The presence of an aural polyp obscuring the tympanic membrane is highly suggestive of an underlying cholesteatoma. A chronically draining ear that fails to respond to appropriate antibiotic therapy should raise suspicion of a cholesteatoma. Conductive hearing loss secondary to ossicular erosion is common. Surgery is required to remove this destructive process.

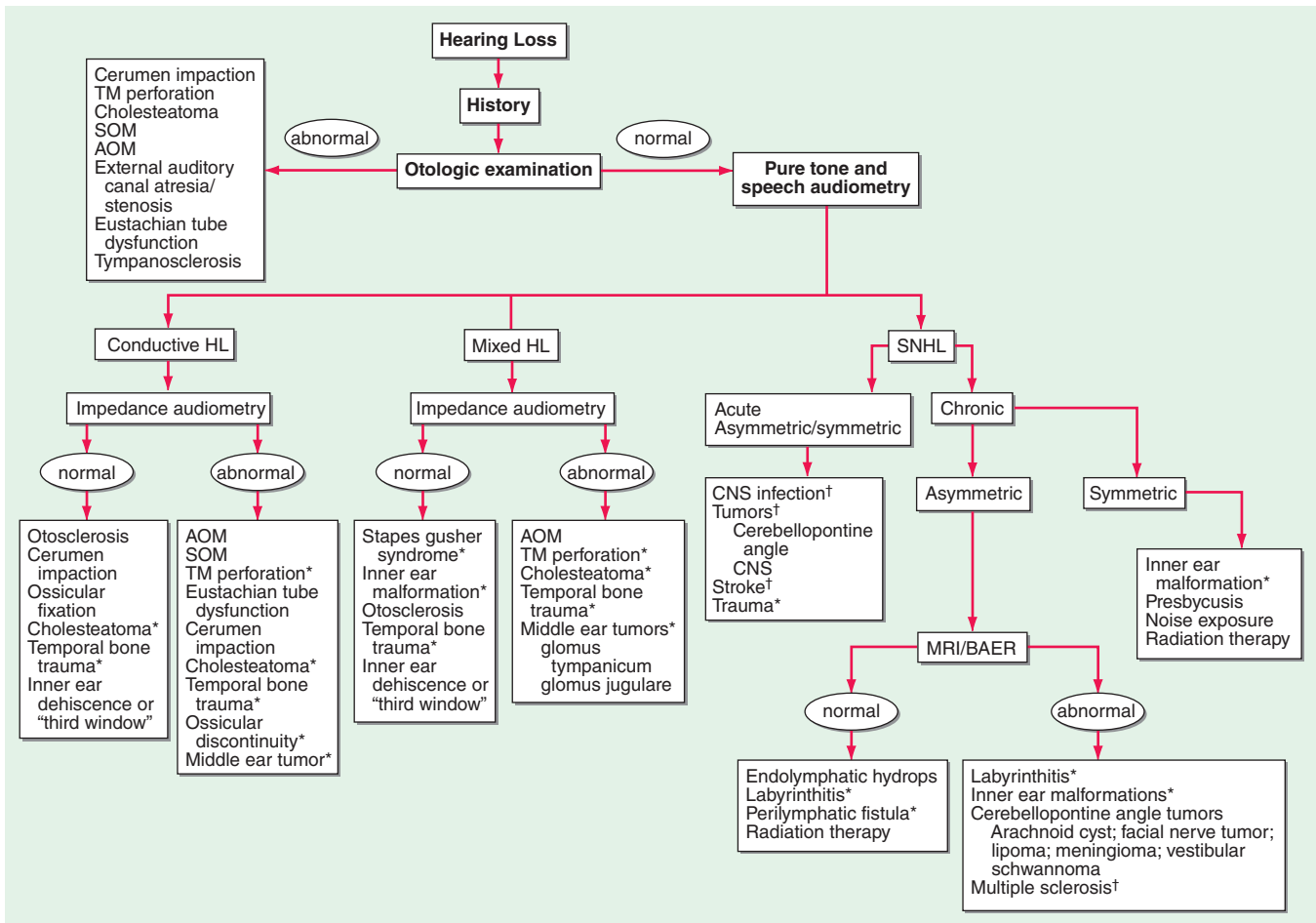


FIGURE 43-2 An algorithm for the approach to hearing loss. AOM, acute otitis media; BAER, brainstem auditory evoked response; CNS, central nervous system; HL, hearing loss; SNHL, sensorineural hearing loss; SOM, serous otitis media; TM, tympanic membrane. *Computed tomography scan of temporal bone. †Magnetic resonance imaging (MRI) scan.