

**On-line Table 1: Most important radiologically identifiable causes of tinnitus**

Causes
Pulsatile tinnitus
Vascular causes
Aberrant ICA
Dehiscent ICA
Stenosed ICA
Aberrant anterior inferior cerebellar artery
High-riding jugular bulb
Dehiscent jugular bulb
Aberrant sigmoid sinus
Stenosed dural sinus
Persistent stapedial artery
AVM
AVF
Aneurysm
Carotid artery dissection
Fibromuscular dysplasia
Venous hum due to increased venous flow in thyrotoxicosis, increased cardiac output from anemia, or compression of the proximal jugular vein.
Tumors
Paraganglioma: glomus tympanicum or jugulotympanicum.
Ossifying hemangioma
Cavernous hemangioma
Sclerosing dysplasias
Otospongiosis or otosclerosis
Paget disease
Raised intracranial pressure
Benign intracranial hypertension (pseudotumor cerebri)
Nonpulsatile tinnitus
Vestibular or facial nerve schwannoma
Brain stem disease like multiple sclerosis and stroke
Chiari I malformation
MD
Drugs (aspirin, NSAIDs, loop diuretics, aminoglycosides)
Muscular tinnitus
Patulous eustachian tube
TMJ disease
Any cause that produces hearing loss
No identifiable cause

**On-line Table 2: Imaging search pattern for tinnitus based on anatomic lesion location**

Pattern
Scalp
AVM
Middle ear
Glomus tympanicum
Glomus jugulotympanicum
Aberrant or dehiscent ICA
Dehiscent jugular bulb
Cavernous hemangioma
Temporal bone
Abnormal lucency or sclerosis
Otospongiosis or otosclerosis
Paget disease
Temporal bone meningioma
Foramina/canals
Aberrant or dehiscent ICA (carotid canal and inferior tympanic canaliculus)
Persistent stapedial artery (foramen spinosum and facial nerve canal)
Facial nerve
Hemangioma
Jugular foramen
Glomus jugulare or jugulotympanicum
Membranous labyrinth
MD
Internal acoustic canal/cerebellopontine angle
Vestibular schwannoma
Aberrant anterior inferior cerebellar artery loop
Aneurysm
Brain/intracranial
Brain stem disease like multiple sclerosis and stroke
Chiari I malformation
Idiopathic intracranial hypertension (pseudotumor cerebri)
Dural sinus stenosis
AVM
Dural AVF
Neck
Carotid artery dissection or stenosis
Fibromuscular dysplasia
Venous obstruction
TMJ