

Imaging of the temporal bone

D. Bodmer
HNO-Klinik
Basel

*Was ist das
Schwerste von
allem?*

*Was Dir das
Leichteste dünket:
mit den Augen zu
sehen was vor den
Augen Dir lieget.*

JW Goethe

External auditory canal

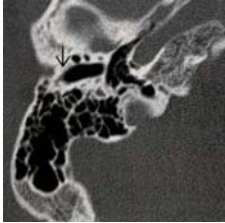


Evaluating the CT scan I: external auditory canal

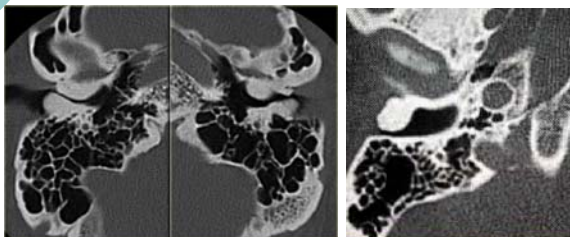
- Stenosis
- Integrity of the bony and cartilage parts
- Exostoses and accumulation of debris
- Bony destruction



Pathology of the external auditory canal



Dx: Atresia plate of the external
auditory canal



Dx: Exostosis
Dx: Osteoma

Middle ear and mastoid



Evaluating the CT scan II: middle ear

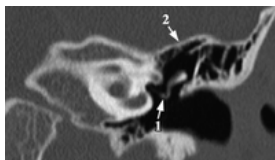
- Aeration
- Masses
- Ossicular chain
- Round and oval window
- Tympanic segment of the facial nerve
- Geniculate ganglion

Evaluating the CT scan II: middle ear

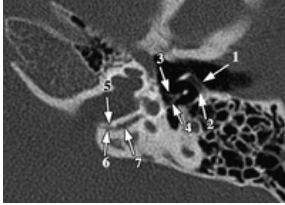
- Ear drum: retracted, thickened
- Position and aspect of carotid artery
- Position and aspect of jugular bulb

Evaluating the CT-scan III: mastoid

- Pneumatization
- Contents of mastoid cells
- Position of sigmoid sinus
- Bony borders: lateral, posterior and middle fossa
- Vertical segment of the facial nerve



1 Incudostapedial joint
2 Tegmen tympani



- 1 Tympanic membrane
- 2 Chorda tympani
- 3 + 4 Anterior and posterior crus of stapes
- 5 + 6 + 7 Ampullary nerves

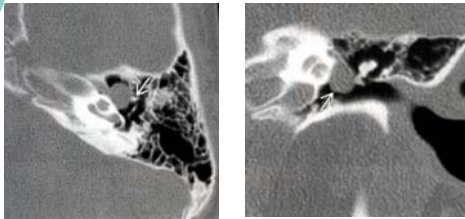


- Straight arrow: Malleus head
- Open arrow: Short process of Incus
- Curved arrow: Prussak' space

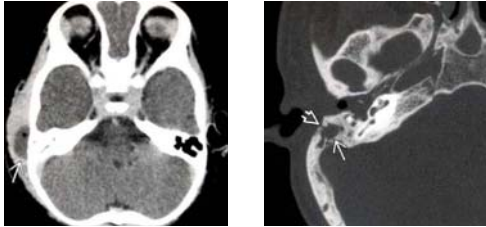


- Arrow: Sinus tympani
- Open arrow: Pyramidal prominence
- Curved arrow: Mastoid segment CN7

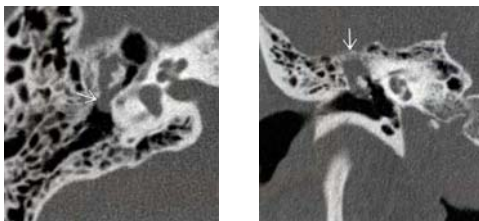
Pathology of the middle ear and mastoid



Dx: Congenital Cholesteatoma

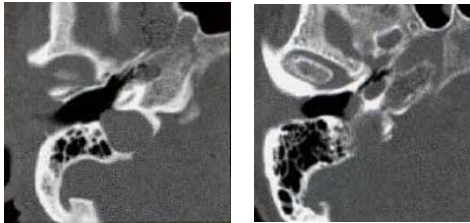


Dx: AOM with subperiosteal abscess



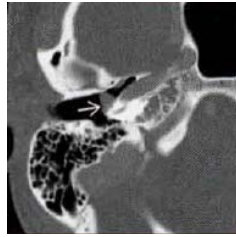
Dx: P. flaccida cholesteatoma

Vascular retrotympanic mass



Dx: Dehiscent jugular bulb
Dx: Glomus jugulare

Vascular retrotympenic mass II

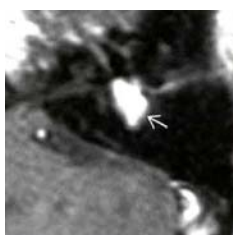
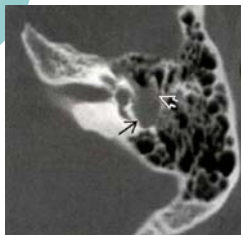


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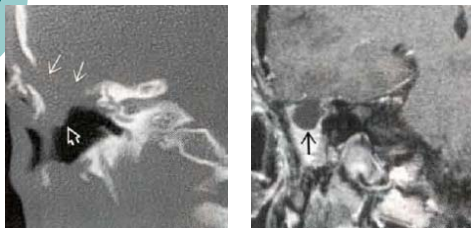
Dx: Aberrant ICA
Dx: Glomus tympanicum

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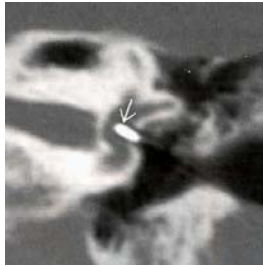
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Dx: Facial nerve schwannoma

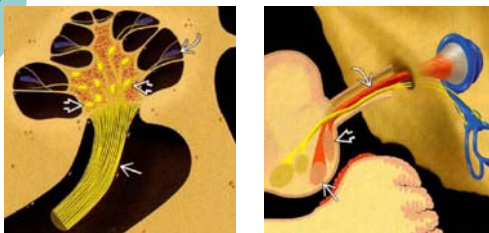


Dx: Meningocele



Dx: Stapes prosthesis in vestibulum

Inner Ear and CPA



IAC



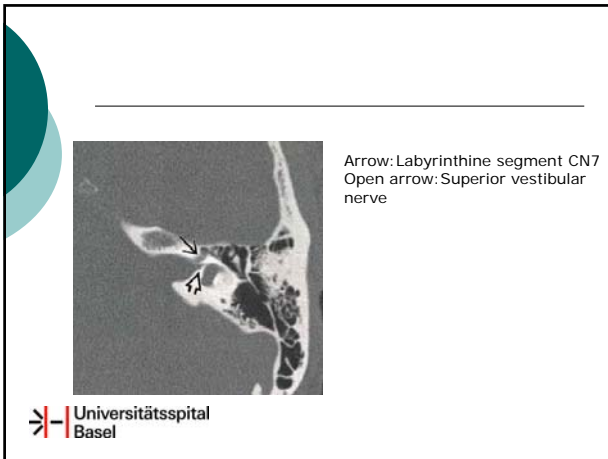
Arrow: CN7
 Open arrow: cochlear nerve
 Yellow: sup. and inf. vestibular nerves

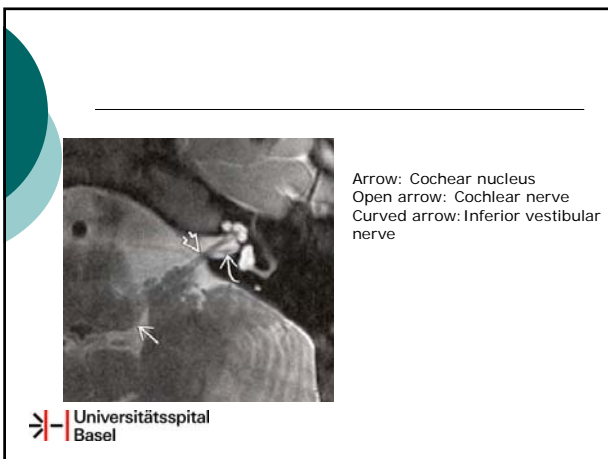
Evaluating the CT-scan III: inner ear and CPA

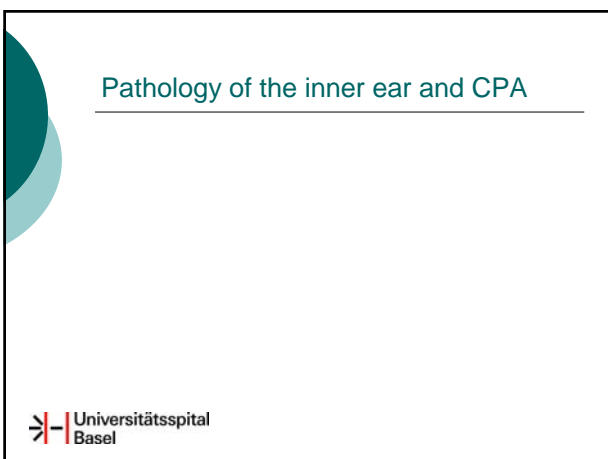
- Cochlea
- Semicircular canals and Vestibulum
- Internal auditory canal
- CPA

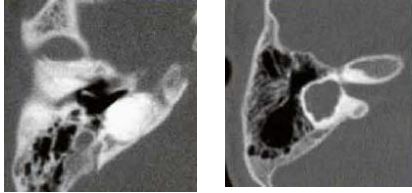


Arrow: Cochlear nerve in IAC
 Open arrow: Osseus spiral lamina

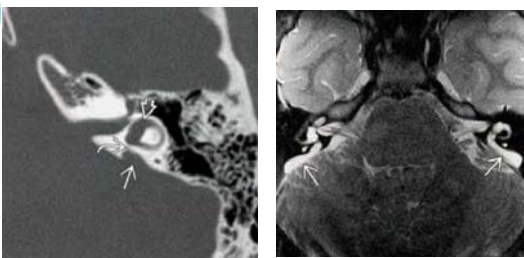




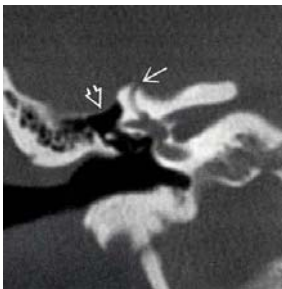





Dx: Labyrinthine aplasia
 Dx: Common cavity

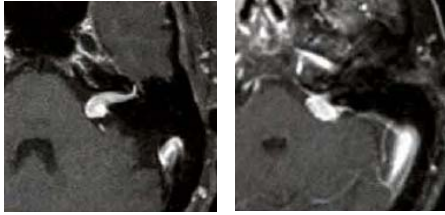



Dx: Large endolymphatic sac




Dx: Dehiscence of the SSC






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Dx: VS
Dx: Meningioma

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Thank you for your attention!

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