

# Imaging of the facial nerve

**September 24, 2019: Richard H. Wiggins, Utah/US**

## Prof. Richard H. Wiggins

Dr. Wiggins is Professor of Radiology and Imaging Sciences at the University of Utah and an adjunct Professor in the Departments of Otolaryngology, Head and Neck Surgery, and BioMedical Informatics. He is past president of the Western Neuroradiological Society (WNRS) and the American Society of Head and Neck Radiology (ASHNR) and is currently the program chair of the Society of Imaging Informatics in Medicine (SIIM). Dr. Wiggins is CAQ certified in Neuroradiology by the American Board of Radiology and certified by the American Board of Imaging Informatics.



## Learning Objectives

1. To become familiar with key anatomic structures of the skull base for a concise differential diagnosis
2. To describe the pertinent imaging aspect of common and less common skull base masses, inflammatory and traumatic conditions
3. To learn how to distinguish benign from malignant lesions
4. To highlight imaging pitfalls and how to avoid misinterpretation.

## Test Your Knowledge

1. Which nerve exists through the stylomastoid foramen?
  - a. cranial nerve 6
  - b. cranial nerve 7
  - c. cranial nerve 8
  - d. cranial nerve 9
  - e. cranial nerve 10
2. Where do cranial nerves 7 and 8 exit the CNS?
  - a. above the pontomedullary junction
  - b. at the pontomedullary junction
  - c. below the pontomedullary junction
  - d. lateral and upper medulla

3. How many branches arise from the descending segment of the facial nerve?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
  
4. Which segment of the facial nerve normally extends through the middle ear cavity immediately inferior to the lateral semicircular canal and superior to the oval window?
  - a. cisternal
  - b. canalicular
  - c. labyrinthine
  - d. tympanic
  - e. mastoid
  
5. A patient with adenoid cystic carcinoma of the parotid gland has progressive facial asymmetry and difficulty chewing. What is the extracranial route of perineural tumor spread between the facial nerve (CN7) and the mandibular nerve (CNV3)?
  - a. greater superficial petrosal nerve
  - b. auriculotemporal nerve
  - c. spinal accessory nerve
  - d. vagus nerve