

Anatomy

CN I is responsible for the sense of smell

Located in the cribriform plate of the ethmoid bone (top of nose)

Transmits to olfactory bulb located inferiorly in the brain

Synapses with neurons of the olfactory tract

Axons partially decussate into olfactory track to piriform area of the temporal lobe

Disorders

Anosmia

Temporary

URTI

Viral infections

Drugs - penicillamine

Permanent

Head Injury - cribriform plate f#

Parkinsons/Alzheimers + other neurodegenerative diseases

Endocrine: Addisons/Thyrotoxicosis

Tumours - Meningioma in olfactory groove

Aneurysm - anterior communicating, ophthalmic

Raised ICP

Anosmia can present unilaterally/bilaterally and can be permanent/temporary

Foster-Kennedy Syndrome (Rare)

Ipsilateral anosmia + Ipsilateral optic atrophy, contralateral papilloedema

Caused by a massive lesion - usually a olfactory groove meningioma - TRUE Foster-Kennedy

Pseudo/False Foster-Kennedy = no mass lesion present

Olfactory Hallucinations

Smelling smells that aren't there

Occurs with complex partial seizures/migraines/neuroblastoma

Can be bi/unilateral

