

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	Permanent
URTI	Head Injury - cribriform plate f#
Viral infections	Parkinsons/Alzheimers + other neurodegenerative diseases
Drugs - penicillamine	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

