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| **CN** | **Examples of Injury** | **Clinical Features** |
| **I** | * Shearing of olfactory nerve filaments
* Fracture of cribriform plate
* Frontal lobe lesion causing compression of olfactory bulb/tract
 | Anosmia or altered sense of smell and taste |
| **II** | Direct nerve trauma | 🡪 Immediate visual loss5 |
| Ischemia, edema, compression of the nerve | 🡪 Delayed visual loss5 |
| Optic chiasm insults | 🡪 Bitemporal hemianopsia |
| **III** | * Basilar skull fracture
* Uncal herniation or compression
* Posterior communicating artery [aneurysm](https://www.amboss.com/us/knowledge/Aneurysm#xid=Wh0P1f&anker=Z8b6f02c390dc48c34116eba68662f92b)
 | * Binocular diplopia5
* Ptosis
* Mydriasis (with involvement of parasympathetic fibers)
* Upward and downward gaze palsy5
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| **IV** | Fracture of the sphenoid wing | * Patients report seeing double images that are vertically or obliquely oriented to each other5
* Improved diplopia with head tilted to contralateral side
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| **V** | Cavernous sinus | * Asymmetry of jaw on opening
* Weakness with mastication
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| **VI** | Cavernous sinus or skull base injury | * Extraocular palsy resulting by medial deviation of ipsilateral eye
* Improved diplopia when the contralateral eye is abducted
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| **VII** | Temporal bone fractureDirect intra-temporal trauma from gunshot wounds23 | * Paralysis of facial expression
* **Peripheral** **lesion** involves muscles of both the upper and lower face and can involve loss of taste from the anterior 2/3 of the tongue.
* **Central** **lesion** results in sparing of upper and frontal orbicularis oculi due to crossed innervation.
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| Note: Spared ability to raise eyebrows, wrinkle forehead helps differentiate a peripheral palsy from a central process |
| **VIII** | Temporal bone fracture | Hearing loss, vertigo and nystagmus |
| **IX** | Posterior fossa or jugular foramen | * Numbness of ipsilateral pharynx
* Dysphagia with absent gag reflex
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| **X** | Skull base injury23 | * Ipsilateral drooping of soft-palate with uvular deviation towards the affected side
* Dysphagia, dysphonia, epiglottic paralysis and decreased gag reflex
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| **XI** | Skull base injury23 | Ipsilateral paralysis of sternocleidomastoid and trapezius |
| **XII** | Skull base injury Nasopharyngeal neoplasmsCarotid endarterectomy | Tongue protrusion AWAY from side of lesion |