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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 |
| **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 |
| **V** | Cavernous sinus | * Asymmetry of jaw on opening * Weakness with mastication |
| **VI** | Cavernous sinus or skull base injury | * Extraocular palsy resulting by medial deviation of ipsilateral eye * Improved diplopia when the contralateral eye is abducted |
| **VII** | Temporal bone fracture  Direct 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. |
| 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 |
| **X** | Skull base injury23 | * Ipsilateral drooping of soft-palate with uvular deviation towards the affected side * Dysphagia, dysphonia, epiglottic paralysis and decreased gag reflex |
| **XI** | Skull base injury23 | Ipsilateral paralysis of sternocleidomastoid and trapezius |
| **XII** | Skull base injury  Nasopharyngeal neoplasms  Carotid endarterectomy | Tongue protrusion AWAY from side of lesion |