

Pokémon-Inspired Cranial Nerve Cards

(Strengths & Weaknesses Emoji Decoder)*

Perhaps better described as “stuff they help us do” and “stuff that might hurt / damage them in some manner”, this decoder describes my *intended* meaning behind each of the strengths and weaknesses emojis; however, there are numerous ways to interpret them if you are feeling creative. Enjoy!

Olfactory Nerve (CN I)

Strengths

- 🌻 = smelling beautiful flowers
- 🍿 = smelling delicious food

Weaknesses

- 💩 = smelling not so lovely smells
- 🩸 = head / face trauma → shearing of olfactory nerves passing through the foramina of the cribriform plate

Optic Nerve (CN II)

Strengths

- 🌈 = seeing all the lovely colours of the visible spectrum
- 🔍 = carrying information regarding spatial and temporal resolution

Weaknesses

- ☀️ = bright light → burning retinas
- 😞 = optic neuritis → sometimes linked to infections like Lyme disease

Oculomotor Nerve (CN III)

Strengths

- 😬 = rolling the eyes → innervating 5 out of 7 extraocular muscles
- 😮 = opening the eyes wide thanks to levator palpebrae superioris (+ imagine pupil constriction & ciliary muscle activity)

Weaknesses

- 😞 = trauma (usually involving moderate to severe head injuries)
- 🍓 = susceptibility to compression by saccular (a.k.a., berry) aneurysms

Trochlear Nerve (CN IV)

Strengths

- 🔄 = primary action of superior oblique → intorsion
- ⬇️ = secondary action of superior oblique → depression

Weaknesses

- 🧬 = mutations leading to a neoplasm
- 🔨 = head trauma (in fairness, I don't think any nerves would fare well against a hammer!)

Trigeminal Nerve (CN V)

Strengths

- 🗨️ = chewing → muscles of mastication
- 🗣️ = carrying somatic sensation from the face → *I CAN feel my face because of you!*

Weaknesses

- ❗ = idiopathic trigeminal neuralgia
- 🧠 = head trauma or acoustic neuroma... your choice!

Abducens Nerve (CN VI)

Strengths

- 🔄 = abduction (+ important role of the CN VI nuclei in horizontal gaze coordination)

Weaknesses

- 🤯 = susceptibility to elevated intracranial pressure due to its lengthy intracranial path
- 🩸 = inflammatory conditions or lesions

*NOTE: the multipliers (x2, x3, x5) on some cards are entirely arbitrary & were included just for fun!

Facial Nerve (CN VII)Strengths

- 🤪 = making silly faces → muscles of facial expression
- 🗑️ = carrying taste sensation from the anterior 2/3 of the tongue

Weaknesses

- 🦠 = viral infection affecting CN VII leading to facial paralysis
- 🪚 = damage during surgery → at risk during some common cosmetic and otolaryngologic procedures

Vestibulocochlear Nerve (CN VIII)Strengths

- ⚖️ = sensing balance and equilibrium
- 🎵 = hearing melodious music

Weaknesses

- 💧 = displacement of the calcium carbonate crystals (statoconia), such as in benign paroxysmal positional vertigo
- 📢 = loud sounds → transient or permanent damage to hair cells

Glossopharyngeal Nerve (CN IX)Strengths

- 💊 = referencing some of the roles of CN IX when taking a pill, such as salivation and taste + general sensation from posterior 1/3 of tongue
- 🪶 = innervating stylopharyngeus and this feather *vaguely* reminded me of stylopharyngeus from a retropharyngeal view... or I was running out of emojis!

Weaknesses

- 🩺 = inflammatory diseases + oropharyngeal and tonsillar infections
- 🧑 = many cases of glossopharyngeal nerve palsy are idiopathic

Vagus Nerve (CN X)Strengths

- 🧘 = substantial involvement in parasympathetic nervous system → “rest and digest / feed and breed”
- 💬 = innervating all intrinsic laryngeal muscles for phonation

Weaknesses

- 🔥 = extreme heat (or anxiety, stress, etc.) leading to vasovagal syncope
- 📊 = stay with me... unstable blood glucose → hyperthyroidism / Graves' disease → thyroidectomy → possible recurrent laryngeal nerve damage

Accessory Nerve (CN XI)Strengths

- 🦸 = supporting the upper extremities via the shoulder girdle → trapezius
- 🔄 = rotating head to the contralateral side → sternocleidomastoid

Weaknesses

- ✂️ = surgical or diagnostic procedures (e.g., neck dissections & biopsies)
- 🚗 = whiplash injuries (e.g., motor vehicle accidents)

Hypoglossal Nerve (CN XII)Strengths

- 🍦 = licking ice cream (CN XII reigns supreme in the world of ice cream!)
- 😬 = protruding the tongue → genioglossus; frequently used to test CN XII during a neurological exam

Weaknesses

- 🦴 = bone abnormalities in the base of the skull or intracranial tumours
- 🪡 = rare complications from dental procedures involving nerve blocks