Optokinetic nystagmus

Optokinetic nystagmus (OKN) is a reflexive eye movement in response to movement of the viewer's visual environment that consists of a slow phase eye movement in the direction of the stimulus followed by a quick phase in the opposite direction. When tested at the bedside, the slow phases represent smooth pursuit, while the quick phases represent saccades. Normally, OKN is conjugate and symmetric (horizontally and vertically). Abnormalities in the optokinetic response can provide diagnostic and localising value.

Hale et al. describe six clinical scenarios where OKN testing is most useful for the practising neurologist [1)]

Optokinetic nystagmus (OKN) is nystagmus that occurs in response to a rotation movement. It is present normally. The optokinetic response allows the eye to follow objects in motion when the head remains stationary (e.g., observing individual telephone poles on the side of the road as one travels by them in a car, or observing stationary objects while walking past them).

1)
Hale DE, Reich S, Gold D. Optokinetic nystagmus: six practical uses. Pract Neurol. 2024 Mar 20:pn-2023-003772. doi: 10.1136/pn-2023-003772. Epub ahead of print. PMID: 38508722.