



Optokinetic Drum Instructions

Part Number: 547500, 576300, 616700

OKN Drum - Instructions

The OKN (optokinetic) drum is used to induce nystagmus, which is a regular, repetitive involuntary movement of the eye whose direction, amplitude and frequency are variable. Nystagmus can be induced, acquired, or congenital. It characteristically appears as one of two types: one in which there is a slow and fast phase and the nystagmus is conventionally defined by the direction of the fast phase. This is called 'Jerk Nystagmus' and is typically due to a motor defect.

The second type of nystagmus is characterized by movements of equal velocity in each direction and can be called pendular nystagmus. It is usually the result of poor central vision.

In some cases there is a mix of the two types. See references listed for more information.

Preparation

The OKN drum will elicit nystagmus if the resolving power of the eye is such that it can distinguish the stripes. There is some technique involved in using the drum effectively so take a few seconds to prepare. It may be advisable to try the drum on someone with known normal vision to learn how fast to spin the drum and how to observe the nystagmus.

The examiner holds the drum in the dominant hand with the stripes running vertically. Using the thumb on either hand, the examiner pushes on the knurled ring just above the handle and thereby rotates drum at a rate of about 1 revolution every 2-3 seconds. If the drum does not spin freely enough, turn the wing nut on the top of the drum counterclockwise, just slightly. If it turns too freely, tighten with the reverse motion.

Procedure

The subject sits in front of the OKN drum at a distance of about 16 inches (40 cm). The examiner rotates drum at a rate of about 1 revolution every 2-3 seconds. In most cases the subject's eyes will involuntarily respond with a slow movement (0.2 seconds) of the stripes and in the reverse direction with the fast movement (0.1 seconds) of the stripes. When the OKN has been elicited, this gives evidence of vision. Some practitioners advise the subject to try to 'count the stripes'.

Beware that a practiced malingerer may suppress the nystagmus by 'staring through' the flag or drum. If this is suspected, an alternative test may be used called the 'swinging mirror' test.

References:

Adler Francis, Gifford's Textbook of Ophthalmology, W B Saunders Co 1938 pp.66-70

Griffin J R and Grisham JD, Binocular Anomalies: Diagnosis and Vision Therapy, Butterworth Heinemann, 2002, pp 157-158

