VISUAL MIDLINE SHIFT TEST

Evaluating for a visual midline shift in relationship to neuro-motor dysfunction can be done in several ways. For persons who have suffered a traumatic brain injury, cerebrovascular accident, cerebral palsy, multiple sclerosis, etc. and to who are cognitively aware and capable of answering and responding to questions, a simple test may determine the relationship of the visual midline shift neuro-motor dysfunction.

The test may be performed by holding a wand or a pencil vertically approximately 16 inches in front of the persons face and moving it from left to right across their field. The person should be instructed to look at the wand and follow it across their field. The person should then tell the examiner when the wand appears to be directly in front of their nose. For persons that are binocular and have no shifts in their visual midline, they should report the object directly in front of their nose which will in turn, match up with their own concept of lateral visual midline. The test should be repeated by bringing the object from right to left across their visual field. (The examiner should be positioned off to the side of the person and not be directly in front of the person so as not to give the person any close cues as to their own midline.

If a person consistently stops the wand when it is either to the right or left of the side of their structural midline, it is an indication that the person has shifted their concept of visual midline in that direction. On a sheet of paper illustrating a face with eyes and nose, the examiner should draw a vertical line to correspond with the position that the patient gave the response in. An arrow should be drawn up to that line indicating the direction by which the examiner moved the wand. Frequently, the position of the visual midline shift will localize to one place and it will show a correlation to neuro-motor dysfunctions of hemiparesis and hemiplegia. For example, if a person has a left hemiparesis (left side weakness to their body) the visual midline shift will frequently be found to be shifted away from their left side or to the right of their nose (structural midline). In a sense, by shifting their concept of visual midline to the right, the person will actually reinforce their own hemiparesis. When standing and walking, it may be observed that the person has difficulty transferring weight over to their left side. The shift in their visual midline to the right is a reinforcement mechanism to enable them some aspect of balance even though it is abnormal.

The second phase of the testing may be done by holding the wand horizontally and passing it vertically in front of the persons face. The person should be instructed to tell the examiner when the wand appears to be at eye level. First, hold the wand horizontally above the persons face and have them look upward toward the wand. Bring the wand from this position downward and tell the person to instruct you when the wand appears to be at eye level. Draw a line horizontally on a graphic drawing to represent the position where the person responded and also draw an arrow downward to that line indicating the direction which the wand was moved. Next, hold the wand beneath the persons face and move it upward asking the person to respond by saying when the wand appears to be directly at eye level. Draw a corresponding line on the drawing with an arrow representation upward. If the wand was determined at eye level when really it was above their eye level position, it indicates a shift in their visual midline posteriorly. Frequently, persons with this shift in visual midline when walking or seated in a chair will thrust their weight ==forward== and assume a position of more ==flexion.==

If the wand was determined at eye level when it was really positioned below their eye level, it indicates a shift in their concept of visual midline anteriorly. Persons with this distortion will experience ==an extended== posture or a tendency to lean ==backward== either while seated or while walking.