

Chiropractor's Guide to Screening for Vision Problems:

Remember the Three T's:

- Tilts
- Turns
- Two-Two's

1. Tilts:

Head tilts are often a sign of a vertical eye muscle imbalance. Most common cause is a paresis of the trochlear nerve, resulting in paretic superior oblique extraocular muscle.

Sometimes a head tilt develops from an anatomical asymmetry, where one orbit is higher than the other.

If it is habituated, the head is likely to stay tilted with eyes closed.

If the head straightens with eyes closed but tilts with eyes open, it is definitely a vision problem.



2. Turns:

Head turns are often a sign of a lateral eye muscle imbalance.

This commonly occurs in patients with:



- Strabismus
- Nystagmus
- Duane's Syndrome (aberrant innervation to lateral rectus or medial rectus muscle)
- Paretic lateral rectus muscle
- Intermittent strabismus with incomitancy (variable alignment)

This is often observable when speaking head on with the patient: they will tend to turn their head to left or right of center.

This often is a visual problem which induces neck problems.

If the posture is new, the head may straighten with eyes closed. If it is longstanding, the body may maintain the turned posture.



3. Two-Two's:

(1) Seeing TWO, or seeing DOUBLE at any distance, or in any direction: indicates an eye misalignment.

As a quick check for the diagnostic action fields of the patient, check the H-pattern of eye movements, having the patient watch your pen. Ask them if it goes double in any direction, and *watch* whether both eyes are aiming at the pen, especially in the 4 corners.

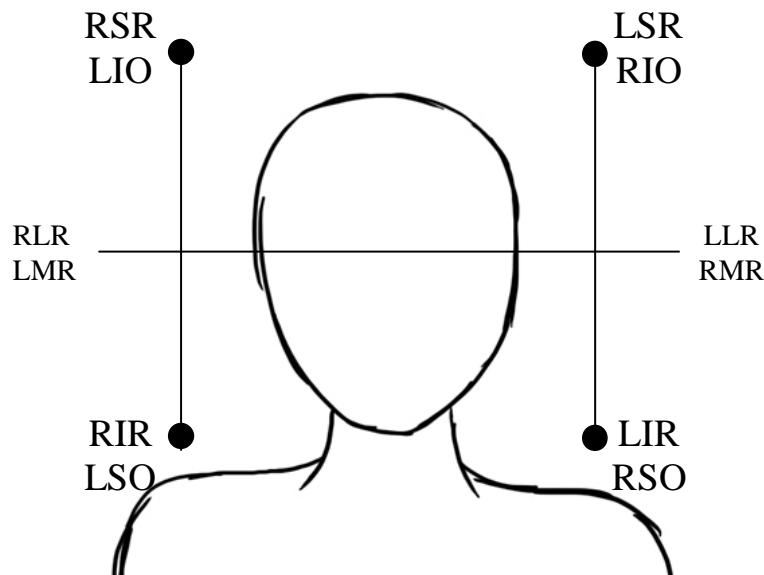
(2) Two inches (2"): Check for the near point of convergence, bringing your pen slowly to the patient's nose. If the eyes break from both aiming at the pen before 2" from the nose, they are showing signs of CONVERGENCE INSUFFICIENCY. They may or MAY NOT report the pen split into TWO.



Common symptoms of CONVERGENCE INSUFFICIENCY:

- a. Difficulty maintaining concentration while reading
- b. Skipping or re-reading lines/ words
- c. Avoidance of nearpoint work
- d. Headaches, esp. Frontal
- e. Blurry vision when switching from near vision to distance vision
- f. Fatigue/ sleepiness when reading
- g. Easily distracted, especially with near work
- h. Covering an eye or tilting head when reading
- i. Squinting for distant or near work
- j. Short attention span, restlessness

**DAFs: Diagnostic Action Fields
Check for DOUBLE (“TWO”) or EYE MISALIGNMENT
AT THESE 4 POINTS:**



Near point of convergence:



Pass:

Break: < 2" (5 cm)

Recovery: <4" (7 cm)

Refer:

> 2" (TWO @ > 2")

> 4"