

Red/Green Hart Chart Fixations

(Oculomotor)

Prerequisite: The patient is able to verbally identify the targets being used (letters, numbers, shapes, pictures).

Purpose: To improve the ability to organize and visually track while maintaining peripheral awareness, therefore improving the quality of quick and accurate fixations and saccades, while assuring that the patient is not suppressing and therefore using both eyes simultaneously.

(For Insurance Billing: Increased the coordination and efficient mobility of the extraocular muscles by encouraging quick and accurate fixations and saccades in a patient with a loss of coordination in their eye movements using a Hart Chart.)

Appropriate for whom: Because the Hart Chart can be varied to meet almost any cognitive and visual ability level, this activity will be appropriate for all patients.

Procedure:

Materials: Red/Green Hart Chart

Main Frame

Red/Green Clip

Metronome

1. The patient stands or sits in a relaxed and balanced posture.
2. Patient wears Main Frame and Clip
3. The patient is asked to read the letters of the chart from left to right, top to bottom in time to the beat of the metronome.
 - a. Note: For most patients, the metronome is first set at 60bpm. The speed may be adjusted to load or unload as necessary.
4. Inquire if the patient can see all columns
5. Inquire if the patient can see both color columns simultaneously. This is to see if they are alternating very fast or can hold both without suppressing.
6. When the patient has reached appropriate proficiency reading from left to right, the activity is loaded to maintain the 80/20 rule.

Loading options:

- Reading in other patterns, such as:
 - Right to left
 - Columns (top to bottom, or bottom to top)
 - Outside-in (1st letter of the line, last letter of the line, 2nd letter of the line, 2nd from last, and so on)
 - Obliques

- Increase or decrease the speed of the metronome. For most patients, increasing speed is a challenge. However, some patients have more difficulty slowing down their speed.
- The patient claps or stomps on specific letter(s) as they appear throughout the chart. For example, the patient would clap on each X as they said the letter.
- Word substitutions: The patient chooses at least one letter in the chart and a word to say instead of that letter each time they come across it. For example, if the patient says “apple” instead of “A” for each A in the chart.
- The patient stands on a balance board while reading the chart
- The patient walks forwards and backwards on a balance beam while reading the chart. For an increased load the patient may be asked to take one step for each letter or every other letter, in time with the metronome.
- The patient catches bean bags and tosses them back to the therapist while reading the chart.

Key Observations/Questions:

- Is the patient able to perform the activity at different distances?
- Is the patient suppressing? If so, go through the Anti-Suppression Protocol.

Variations:

- A Picture or Shape chart may be used instead of letters. This is especially appropriate for patients who have difficulty identifying letters.
- A Number chart may be used instead of letters. This may be appropriate for patients who struggle to track numbers in math equations, or for patients who need a new chart to maintain appropriate challenge.

Troubleshooting:

- If the patient struggles to find the next level, you may suggest opening periphery and/or specifying peripheral targets for them to be aware of while reading. You may also suggest maintaining awareness of the entire chart at once.
- If the patient struggles to keep their place even without the metronome, they may touch underneath each letter as they read. Please note that this is not following along with their finger, but tapping each letter in the line to localize it, preferably with alternating hands. As ability improves, this accommodation should be removed.
- If the patient struggles to clear the chart, they may be placed at a different distance from the chart.
- If the patient struggles with crowding, a chart with fewer letters and/or more space between the letters may be used. As ability improves, this accommodation should be removed.