

## Hart Chart Games

**Purpose:** To develop accurate eye movements in conjunction with the use of peripheral vision in maintaining orientation.

**Materials:** One large and one small Hart Chart, patch, and metronome (or assistant clapping a consistent beat). Place the large Hart Chart at eye level on wall as far away as you can comfortably read it.

### Procedure:

1. Saccades: Proceed through steps a-i each session, stopping to practice on any step which is difficult. Add clapping assistant or metronome, and read letter to the beat as the patient can handle it. Practice at various distances and with small chart held in hand.

- a. read first and last letter on each row
- b. read top and bottom letter on each column
- c. read first and next to last letter on each row
- d. read whole chart left to right and top to bottom
- e. read first and last letter on each row and then second and next to last letter on each row, then third and third from last letter on each row, etc.
- f. Pong: read chart diagonally with one row covered, when you get to the end bounce as if off wall on the next diagonal
- g. read right to left (only if there is no trouble with left/right directions or reversals)
- h. read first letter on first row then last on last row, first on second row then last on next to last row, etc.
- i. make up your own way to read the letters

2. Added Challenges: When the patient can complete a-i above with metronome, begin challenges which embed the automaticity of eye movements.

- a. stand on one foot
- b. do not say the vowels, or a particular letter
- c. say a color or state (or whatever category they choose) on a particular letter
- d. count the "E's", each time they get to an "E" say the next number
- e. say 2 letters each beat or one every other beat, etc.
- f. try to distract with visual and/or auditory distraction
- g. PA tossing: as the patient is reading toss a ball back and forth
- h. cover the last 2 letters just as they are about to read them, then the last 3 letters just as they are about to read them
- i. add ball bouncing while reading
- j. add jump rope
- k. clap on a particular letter

1. give new directions while they are reading
- m. give multiple directions
3. Saccades to Back Space: With patient's back to the chart, have them turn to their right, point their left index finger at and read the first letter on the first row. Next have them turn to their left, point their right index finger at and read the last letter on the first row. Repeat on each row. Do not allow them to move their feet.
4. Letter Search: Find all of the A's on the chart, telling in which row and column they are found. For example, row two, column three. Repeat with other letters.
5. Codes: Make a code for a word by calling the row and column of each letter in order. For example, HELLO, would be:

1-9 2-6 8-9 2-8 6-3

Have the patient remember the letters as you give the codes until they recognize the word.

Let assistant make codes as well as solve ones made by the patient.

6. Split Hart Chart: If the above activities can all be accomplished easily, make a copy of the large chart and cut in half from top to bottom (separate by 8 to 10 inches), and tape on the wall at eye level. Alternately read letters from charts; first one from the left, then one from the right until all letters have been read.
7. Quartered Hart Chart: If the above activities can all be accomplished easily, make a copy of the large chart and cut into quarters. Tape these on the wall, at the corners of an imaginary square. Read the first letter from the upper left chart, then the first letter from the upper right chart, then the first from the lower left chart, etc. Continue to the next letter from each chart, until all of the letters have been read.
8. Hart Chart on Walk Rail: Repeat 1, 5, and 6 on walkrail, saying one letter on each step. Then add metronome.
9. Hart Chart on Rotator: Repeat 1 with chart on rotator.
10. Hart Chart on Mini-Tramp: Read letters from chart as in 1. but read on every other or every third bounce.
11. Hart Chart with Flo: Read letters alternately from split charts as follows: when weight is shifted to the left read a letter from the chart on the left, and when shifted to the right, read a letter from the chart on the right.

**Goal:**

1. To be able to move eyes accurately without losing place on the chart.
2. To be able to perform equally with each eye alone.
3. To be able to keep with the metronome, even with varying speeds.
4. To be able to continue the activity for 15-20 minutes with little or no fatigue.
5. To be able to perform equally on the far and near charts.
6. To be able to perform under various stress situations, to take new instructions while performing the task, and to process upcoming information so they can perform without losing a beat.

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4

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8

10

1	O	F	N	P	V	D	T	C	H	E
	Y	B	A	K	O	E	Z	L	R	X
3	E	T	H	W	F	M	B	K	A	P
	B	X	F	R	T	O	S	M	V	C
5	R	A	D	V	S	X	P	E	T	O
	M	P	O	E	A	N	C	B	K	F
7	C	R	G	D	B	K	E	P	M	A
	F	X	P	S	M	A	R	D	L	G
9	T	M	U	A	X	S	O	G	P	B
	H	O	S	N	C	T	K	U	Z	L

X	B	L	O	K	C	2	G
K	7	D	W	6	R	V	E
H	P	M	R	V	F	9	W
S	L	8	C	2	X	G	F
9	E	A	N	R	H	3	P
P	O	H	2	C	9	M	A
M	5	F	K	N	T	Y	6
L	D	Z	4	U	B	O	S

W T E Y I U S G  
P T M E X W P I  
R B S A O M N H  
Y B R I M V D Z  
O I T U E R Q W  
G H D F A L J K  
B H U J M K O P  
X S W E D C F T

J Y P K r d M x  
v x i k f b k m  
c b f r x k m k  
k x k r x k m x  
v f y y k k x k  
k k m j y x k x  
m k x i r m y  
k y f k x d l y