



Bright Eyes

Family Vision Care

Vision Therapy Home Manual



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About Bright Eyes Family Vision Care

Bright Eyes Family Vision Care is an independent Optometry office located in the Westchase neighborhood of Tampa, FL. Bright Eyes is owned and operated by Dr. Nathan Bonilla-Warford and his wife, Cristina Bonilla-Warford.

Dr. Bonilla-Warford received his Doctorate of Optometry from Illinois College of Optometry, located in Chicago, Illinois, in 2004. The following year he completed a residency program specializing in Pediatric and Binocular Vision at the Illinois College of Optometry.

Bright Eyes Family Vision Care opened in July 2006 with the mission to maximize the visual potential of every patient by providing excellent comprehensive care. Therefore, we offer a full range of services for family eyecare, from infant exams to adult exams, contact lenses, orthokeratology, and vision therapy.

Acknowledgements

Thank you to our patients for trusting your vision to our care. We have learned much from you and have strived to develop an excellent vision therapy program. Thanks to your encouragement and feedback, we will continue helping patients improve their quality of life by improving their vision.

Contact Information

We appreciate feedback and use new ideas to improve our services. If you have questions about this manual, vision therapy, or any other aspect of Bright Eyes Family Vision Care, please contact our office.

Note: The electronic version of this document has clickable links to more information and can be found at <http://brighteyestampa.com/HomeManual.pdf>.

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Welcome to Vision Therapy!

Dear Vision Therapy Participant,

First and foremost, I want to say that I am happy that you have decided to take an active role in developing the vision of yourself or your child. This will be a rewarding process. To help you get the most out of it, here is some important information:

Vision Therapy will help you make the most of your vision.

Vision therapy is more than just exercises. It is designed specifically to enhance visual abilities beyond clarity of sight to include focusing, eye coordination, and visual processing.

Vision Therapy IS FUN!

In fact, it is so fun that many of our activities seem more like games than therapeutic techniques. This is so patients stay engaged while their visual skills are improving!

But Vision Therapy also TAKES WORK!

I know firsthand the benefits of vision therapy. (You can read the story on my blog at: <http://tinyurl.com/Dr-BsVT>). I also know that it takes time and effort. When patients come to the office, they need to be ready to work. The same is true for home techniques. As with everything in life, the harder one works, the more benefits will be seen that much faster.

Vision Therapy benefits can last a lifetime.

When patients graduate from vision therapy, they have *new, stronger visual skills* that will serve them the rest of their life. But this only works if they finish the program. Many patients will see some benefits right away and quit vision therapy early. But since they haven't mastered all the skills, the benefits may not be permanent.

Vision Therapy takes teamwork.

It takes effort from all of us - the patient, the doctor, the staff, and even other family members and friends - to get this done. If we all work together - on the same page with the same goals - we will solve these vision problems faster and more completely. I encourage you to *always ask questions* if you have any concerns about the program or any specific technique.

Good luck and have fun!



Instructions for Visual Ergonomics

Visual ergonomics is the term used to describe methods for ensuring that your eyes and vision are kept working as well as possible. This is done to help prevent the development of problems such as headaches, eyestrain, and blurry vision. Below are some ways that you can practice good visual hygiene.

1. Always wear your glasses as prescribed.
2. When reading or using the computer, follow the **20/20/20 Rule**. After every twenty minutes of work, take 20 seconds and look up at specific object 20 feet away and let its details come into focus. Maintain awareness of other objects and details surrounding the objects. When studying, place a bookmark a few pages ahead to help you remember the 20/20/20 rule.
3. Do all near work such as reading or playing video games at "**Elbow Distance**". This will limit the strain on your eyes. See more on our blog at: <http://tinyurl.com/ElbowDist>.
4. **Sit UPRIGHT**. Practice holding your back arched while you read and write. Avoid reading in bed unless sitting reasonably upright.
5. Provide for **good lighting** for near tasks. The reading illumination on the task should be about three times that of the surrounding background.
6. Do not sit any closer to the TV than 6 to 8 feet, and be sure to sit upright. Maintain good posture.
7. When possible, use a slant board for reading and writing.

What's so important about home therapy?

I ask my patients to do their home therapy five days a week, allowing one day off per week. By repeating visual skills frequently, patients progress more quickly than they would with office therapy alone. The patients who work less often than this at home, often progress through the program more slowly and make fewer overall gains from the program.

Vision science research has shown that, *"A fast improvement, occurring early in training, can be induced by a limited number of trials, on a time scale of a few minutes or less, but only if high-quality sensory input is provided."* During the in-office session, most activities are programmed for 8-10 minutes. It is an intense, highly -controlled environment where you perform a specific visual activity several times within a few minutes.

The report continued, *"Performance continued to improve over days and was maximal after 5 to 10 consecutive training sessions spaced 1 to 3 days apart. Once a maximal level of performance was reached, most of the gain was retained over months and even years."*

The key to fully learning the new behavior or skill is the 5-10 consecutive practice sessions with no more than 3 days between each of the practice sessions. Most home activities will be assigned for two or more weeks at a time. Activities that are assigned for longer periods of time are modified as you proceed through treatment.

In vision therapy, we try to provide you with the opportunity to have necessary, meaningful experiences to acquire visual skills that will help you meet your personal goals. With the proper support of regular home practice, you can make huge changes that will last a very long time.

Adapted from Paul Harris, OD,

Reference: Karni, Avi, "Adult Cortical Plasticity and Reorganization", Science & Medicine, January February 1997, PP 24-33.

Guidelines for Parents & Home Assistants

For Parents: Assisting your child to complete home therapy is an essential role. Your child will experience challenges and successes both in the office and at home. Keep in mind that we will always do activities in office therapy before we send them for home therapy. The home therapy procedures should be approached as practice to gradually improve visual skills rather than on a right or wrong basis.

If you have any questions about the home therapy activities, or your child's progress with them, please contact us. We are happy to help.

1. **Challenge, but do not frustrate.** All of the activities can be made easier or more difficult. However, it is more important to start off each technique in a way that your child grasps the idea and begins to feel comfortable. As he or she gains confidence, gently push to find the level that requires effort but is not uncomfortable.
2. **Allow the patient to assess their own performance.** Although it is very natural for you to want to tell your child how he or she did on each procedure, please refrain from doing so. Instead, let him or her tell you how well they did, or describe the experience. Discuss with your child how much progress he has made each time and let him figure out what he must do differently next time if he is to move toward the desired goal of the procedure.
3. **Promote the positive!** Stress the activities performed successfully rather than emphasize wrong answers or inability to perform.
4. **Taking a break is OK!** If it is obvious that your child is tiring, stop short of failure and try again next time. It is not always necessary to work on a given procedure for the length of time stated in the instructions. By the same token, if he or she is experiencing success on a given procedure and wishes to continue with it a while longer, encourage your child to do so.
5. **Keep a positive environment!** Learning always takes place more easily in a pleasant atmosphere than an unpleasant one. Therefore, if you are overtired or cross, do yourself and your child a favor and skip home therapy that day. If your child is not feeling well, do not work with him that day. It is OK - just make a note on the home activity log.
6. **Keep it quiet!** Home therapy procedures are initially best done without an audience, in a calm, quiet environment. If others are around, move to another room with your child and close the door. When your child develops confidence, the training can be done with others around, if that is helpful.

Vision Therapy Software

Vision Therapy includes a variety of techniques to help patients improve their visual skills. Some of these are called “free-space” activities because they take place in the space of the room. An example of this is any activity that requires someone to hold an object or look at a chart on the wall.

To complement free-space activities, we use therapy instruments and computer programs. These are very sophisticated exercises to ensure the patient is working on specific skills. The software that we use in the office and at home is produced by **HTS Computerized Home Vision Therapy**. All of the programs have been designed by optometrists to treat visual efficiency and processing problems. Not every software program is appropriate for every patient, so you will only be given the software that is right for you.

The programs are internet-based. This allows me to check the progress throughout the week and record the details of your progress. This is good for both motivation and keeping a record of progress.

- During the first week of therapy, do not do any activity other than set up the software, unless instructed.
- Install the software on a computer that is always connected to the Internet.
- Enter the patient's name and the information on the CD case when prompted.
- Once the software is set up, please call the office to confirm so that we can set up the program appropriately.
- If you have any general questions about the therapy activities, you can call or email the office.

If you have any technical questions, call the
HTS Technical Support Line at 1-888-810-3937.

Notes:

Barrel Card

What am I doing? Looking at a barrel card placed directly in front of the nose.

Why? To develop convergence (ability to cross the eyes) skill.

What Do I need? Barrel Card, a point to look at in the distance.

Instructions:

1. The patient holds a card with the edge up against their nose, with the large barrels being the farthest away. The red barrels will be seen by one eye; the green barrels by the other.
2. Focusing on the farthest barrel, the patient crosses their eyes and pulls the red and green barrels together so that they overlap. Next, change focus from the farthest barrel to the middle barrel, keeping them clear and making them overlap. Finally, focus on the smallest (closest) barrels and repeat.
3. The patient should then take a break and focus out at a target across the room for a few seconds.
4. One cycle should consist of the far barrel, middle barrel, near barrel, and then to a target at a far distance and back to the farthest barrel.

Activity Goal: Easily complete 20 cycles while maintaining clear and single targets with a minimum of eyestrain.

Variations:

Patient can hold the barrel card vertically so that the middle barrel is directly in front of their eyes. Change focus from the bottom barrel, to the middle barrel, to the top barrel, then to the distant target. This variation is much more difficult, and is assigned to patients who have successfully completed the original exercise.

Brock String: Three Beads

What am I doing? Looking at colored beads located at different distances on a string

Why? To develop the awareness of vision with both eyes working together while converging (crossing the eyes) and diverging (relaxing the eyes).

What do I need: Brock string, door handle (or something to tie the string to)

Instructions:

1. Tie one end of the string to a door handle or something sturdy. Position the beads even spaced apart, with the furthest bead close to the door handle and the near bead about 6 inches from the end of the string. The patient uses a finger to hold the other end taut against his nose.
2. The patient focuses on the bead furthest away. While ensuring the bead is single, the patient should see 2 strings as described in the goal and be aware if any part of the string seems to disappear.
3. Then the patient should look at the middle bead and be aware of the other beads. They should appear to be double. Then the patient should look at the closest bead.
4. The patient should look back and forth between the three beads, checking to see if the strings or other beads disappear.

Activity Goal: Clearly and correctly describe what is seen in his peripheral vision (in front of and behind the bead). The patient should see two strings in front of (leading to) the bead that is focused on and two strings behind (leading away from) the bead. The appearance of two strings should appear to form an X with the bead that is focused on as the point at which the two strings appear to cross.

Variations:

On command or at the beat of a metronome, have the patient look from one bead to the other quickly and accurately.

Note from Dr. Bonilla-Warford:

This is a procedure that is designed to teach patients how to improve their ability to cross their eyes. The technique is set up to provide feedback about what their eyes are doing at all times. The way the visual system works is that wherever the eyes are pointing, that is where you perceive single vision. The strings should look as if they are extensions of the right and left eyes. If a patient is looking at the green bead but the strings appear to cross farther away than the green bead, then he is looking too far away. Patient should try to correct the eye position and look closer. For additional information on how to use the Brock String, please visit <http://www.youtube.com/watch?v=EGICVTdNqfw>.

Brock String: Bug on a String

What am I doing? Slowly changing the focus location on a string

Why? To further develop the ability to converge.

What do I need: Brock string, door handle (or something to tie the string to)

Instructions:

1. Tie one end of the string to a door handle or something sturdy. Move the beads to the furthest end of the string, as they are not the focal point for this activity.
2. The patient uses a finger to hold the other end taut against their nose.
3. While looking at the very end of the string, patient tries to imagine there is a bug walking slowly toward him. Patient will see the two strings cross at the end of the string.
4. Have the patient imagine the bug is walking very slowly, closer and closer until he is looking 1 inch in front of his nose. This should be very gradual.
5. The patient repeats this process for several minutes.

Activity Goal: It should take an entire minute for the eyes to smoothly follow the bug from distance to near.

Variations:

The patient should also be able to follow the bug smoothly from his nose and slowly imagine the bug walking away from him to the end of the string.

Chart Reading

What am I doing? Reading letters and numbers on a chart placed on the wall with one eye patched

Why? To help improve the ability to move eyes smoothly and quickly read letters and numbers in visually challenging situations.

What do I need: Eye Patch and Letter Chart

Instructions:

1. Hang the chart on the wall at the patient's eye level. The patient should stand about 6 feet away from the chart.
2. Patient should cover one eye with the eye patch.
3. Patient should read one line of letters slowly and carefully. Continue reading lines to complete the chart (or for the specified amount of time).
4. Remove the patch and repeat using the other eye.

Activity Goal: Strive for reading the letters accurately and confidently. Both eyes should have equal skill.

Variations:

1. Read the letters in a different order (right to left or up and down) to minimize memorization.
2. To increase difficulty, have patient stand on one foot then the other.

Chart Saccades

What I am doing? Reading letters and numbers on a chart on the wall in a back and forth motion

Why? To help improve the ability to quickly and accurately move the eyes back and forth.

What do I need: Eye Patch, Letter Chart

Instructions:

1. Hang the chart on the wall at the patient's eye level. The patient should stand about 6 feet away from the chart.
2. The patient should cover one eye with the eye patch.
3. The patient begins by reading aloud the first (far left) and last (far right) letter or number of the top row of the chart. Then continue reading the first and last letters on the next lines of the chart until they reach the bottom of the chart.
4. Then the patient should read the next inner set of letters (second from left and second from right), reading back and forth then down the chart.
5. Continue reading letters to complete the chart (or for the specified amount of time).
6. Remove the patch and repeat using the other eye.

Activity Goal: Strive for approximately one second per line with accurate and smooth, consistent responses with no head or body movement.

Variations:

1. Have the letters read first from the right and then from the left to minimize memorization.
2. To increase difficulty, have patient stand on one foot then the other.

Clear Blur Clear (CBC)

What am I doing? Looking through a lens and intentionally making the view of a wall chart blurry then clear

Why? To help improve conscious control of eye focusing.

What do I need? Eye Patch, Lens, and Letter Chart

Instructions:

1. Hang the chart on the wall at the patient's eye level. The patient should stand about 6 feet away from the chart.
2. With one eye covered with a patch, the patient positions their hand so that the lens can be comfortably placed in front of the uncovered eye with the inner curved (concave) part facing toward the eye and the curved (convex) part facing out.
3. Next, the patient looks at one row of letters without the lens and keeps it clear for 10 seconds.
4. Patient now places the lens in front of the eye. Instead of trying to clear the letters, patient allows it to be blurry for 10 seconds.
5. Without moving the lens, patient clears the letters at will by simply "trying to" for 10 seconds. Repeat Clear...Blur... Clear... Blur.
6. Have patient remove the patch and repeat using the other eye.

Activity Goal: Strive to be able to repeat clear/blur/clear for two minutes with accuracy with each eye. If one eye has greater difficulty, spend a greater portion of time on that eye.

Variations:

To increase difficulty, have patient stand on one foot then the other.

Eccentric Circles 1

(Crossing Eyes)

What am I doing? Focusing on two images and fusing them together into one image by converging the eyes (turning eyes inward)

Why? To improve the ability to consciously coordinate the aim and focus of the eyes. Improving this skill will enhance the ability to do close work comfortably.

What do I need? A set of Eccentric Circles cards

Instructions:

1. The patient should hold the two cards side by side and touching so that the "A's" are together on the bottom with one hand. The patient should hold a pencil in the other hand so that its point is between the two sets of circles.
2. Slowly move the pencil towards the eyes while concentrating on the point, being aware (indirectly) of the rings behind the pencil.
3. At a certain point, the patient should become aware that the circles are beginning to double. The patient then moves the pencil (and eyes) closer until two sets of circles fuse together so that they see three sets of circles. The eyes are now aimed at a point closer to the patient than the cards. Have the patient try to remove the pencil and still keep the three sets of rings visible. (This means keeping the eyes pointed inward at the spot where the pencil was).
4. When the patient sees three sets of rings, they should notice that the smaller rings in the center set seem to be farther from him. Next, the patient tries to get the circles in clear focus and maintain the 3-D illusion.
5. After successfully seeing the circles clearly and in 3-D, have the patient look up across the room for a few seconds and then back to the point where the pencil was so that he may regain the three sets of rings. The patient continues practicing in this manner, first fusing the circles to obtain three sets, then looking across the room, then back to fuse the circles again.
6. Have the patient try to fuse the circles as quickly as he can each time he looks back from across the room.

Activity Goals: Be able to see the 3D effect quickly without assistance.

Variations: Do the activity with the circles separated and moving.

For more information go to: <http://www.youtube.com/watch?v=aVamg6E3qjY>

Eccentric Circles 2 (Looking Straight Ahead)

What am I doing? Focusing on two images and fusing them together into one image by diverging the eyes (looking straight ahead)

Why? To help improve the ability to consciously coordinate the aim and focus of the eyes.

What do I need? A pair of Eccentric Circles cards

Instructions:

1. The patient should hold the two cards side by side and touching so that the "A's" are together on the bottom with one hand.
2. The patient should look just over the two cards at some object in the distance, but at the same time be aware by indirect vision of the circles. The patient should see 4 sets of circles.
3. The patient should control the turning of their eyes just a little to get the two middle sets of circles to overlap so that the 4 sets of circles turns into 3 sets of circles.
4. When the patient can accomplish this, he should notice that the smaller ring of the central set is in 3-D and appears nearer than the larger ring.
5. Have patient try to keep the circles in clear focus and maintain the 3-D. When the patient can do this, instruct him to look directly at the cards for a few seconds, then look beyond the cards again and regain the 3 sets of rings. Patient continues practicing in this alternating sequence.
6. Patient should try to be aware of other objects in his field of view as he practices.

Activity Goals: Be able to see the 3D effect quickly without assistance.

Variations: Do the activity with the circles separated and moving.

For more information go to: <http://www.youtube.com/watch?v=aVamg6E3qjY>

Eye Yoga

What am I doing? Standing still and moving the eyes in different directions.

Why? To stretch and relax the eye muscles, develop an awareness of how the eyes move, and control that movement in a coordinated manner.

What do I need? No equipment needed.

Instructions:

1. Patient should stand up straight with feet shoulder-width apart and bearing equal weight. Hands should be comfortably at the sides.
2. Patient starts with eyes open and looking straight ahead. Then, have the patient move his eyes to 1 of the 4 primary positions of gaze (up, down, left, right) and hold the stretch for 5 seconds or more, repeating this with another primary position until all 4 positions of gaze are completed, thus forming a + with the eye movements. The patient should become aware of how his eyes feel and what he sees.
3. Then the patient moves his eyes to the 4 diagonal positions of gaze (upper right, lower left, upper left, lower right), repeating the above steps for 5 seconds in each direction, forming an x with the eye movement.
4. Encourage the patient to stretch the eyes to the maximum distance without causing extreme discomfort.

Activity Goals: To perform the task with eye movement only while maintaining good balance.

Variations: Hold the gazes for longer periods of time, up to 30 seconds.

Note: If you want to see a slightly different version taught by Paul McCartney, go to <http://tinyurl.com/PaulEyeYoga>

Flippers

What am I doing? Reading while flipping between lenses of various strengths

Why? To help improve the ability to repeatedly, quickly, and accurately shift eye focusing while reading.

What do I need? Eye Patch, +/- Flippers, reading material of appropriate difficulty that is interesting to the patient.

Instructions:

1. Patient is seated at a table with one eye patched and brings the flipper up in front of both eyes (so that each eye can see the reading material through each of the lenses, unless one eye is patched).
2. Patient begins reading aloud.
3. At the end of each line, the patient flips the flippers so that he is looking through the lenses on the other side of the flipper. This should be done with the wrist in a smooth, quick movement.
4. Patient continues for the recommended time period (usually five to ten minutes).
5. At the end of the time period, have the patient briefly describe what he read.

Activity Goal: To be able to read equally well with both eyes with no discomfort throughout the entire session.

Variations:

Flippers are first assigned using the eye patch. The patient will then progress to using the flippers with red/green glasses instead of an eye patch to visually switch between eyes. Finally, the patient will use higher power flippers with both eyes on more visually challenging tasks, such as Letter Tracking.

Head Swings

What am I doing? Looking at a fixed point in the distance while moving the head in different directions

Why? To stretch and relax the eye muscles, to develop an awareness of how the eyes move, and to control that movement in a coordinated manner.

What do I need? No equipment needed.

Instructions:

1. Patient should stand up straight with feet shoulder-width apart and bearing equal weight. Hands should be comfortably at the sides.
2. Patient should fix his eyes on a non-moving target at least five feet away.
3. Patient turns his head as far to the left as possible, keeping his eyes fixed forward on the target ahead. With this exercise, the patient's eyes stay steady on the target in front, and only his head and neck are moving.
4. Now have the patient turn his head to the right, keeping his eyes fixed forward on the target ahead.
5. The patient continues in this manner until the head has been moved in all 8 gazes: up, down, left, right, upper right, lower left, upper left and lower right.
6. Patient proceeds to moving head in a slow circle, first clockwise and then counter clockwise.

Activity Goal: Smooth slow movement of the head in all directions, without losing sight of the target,

Variation: Simulate figure 8's and random movements.

Kirschner Arrows

What am I doing? Pointing in the directions indicated by arrows on a chart

Why? To develop smooth, efficient and well controlled eye movement skills, along with automatic directional skills.

What do I need? Kirschner Arrows Chart

Instructions:

1. Hang the chart on the wall at the patient's eye level. The patient should stand about 6 feet away from the chart.
2. The patient points his head and nose at center of chart and keeps head movements to a minimum. Beginning up at top/left corner, the patient simply moves from arrow to arrow (left to right) pointing their whole arm in the direction indicated by each arrow, making sure to cross the body midline with the arm where appropriate.
3. When top row is completed, the patient drops down to second row and repeats, continuing on through the entire chart. The patient begins slowly (no errors).

Activity Goal: To be able to correctly indicate the direction

Variations:

1. Instead of point, the patient may mime pushing a box in the correct direction.
2. The patient may do the activity without pointing – just calling out the direction in which arrows are pointing.
3. The patient may be assigned to the activity pointing in the direction opposite the arrow's direction.

Lens Dips

What am I doing? Reading from a chart hung on a wall through lenses of various strengths

Why? To help improve the ability to quickly and accurately shift eye focusing through a wide range of distances

What do I need? Eye Patch, Lens, and Letter Chart

Instructions:

1. Hang the chart on the wall at the patient's eye level. The patient should stand about 6 feet away from the chart. If the print is not clear at that distance through the lens, slowly have the patient move toward the chart until it is just clear.
2. With one eye covered with a patch, the patient positions the hand so that the lens can be comfortably placed in front of the uncovered eye with the curved (convex) part facing out and the flat (concave) part facing toward the eye.
3. The patient reads one line of letters without the lens. Next, have the patient place the lens in front of the uncovered eye and read the next line of letters.
4. The patient continues reading lines with and without the lens, repeating the chart as needed until you complete the time. As always, initially emphasize accuracy, then speed.
5. Have the patient remove the patch and repeat using the other eye.

Activity Goal: Strive for finishing each line in approximately 2 seconds while reading the letters accurately and confidently.

Variations:

1. Have patient read the letters in a different order (right to left or up and down) to minimize memorization.
2. To increase difficulty, have the patient stand on one foot then the other.

Letter Tracking

What am I doing? Circling letters of the alphabet in order in paragraphs of nonsense words

Why? To improve visual discrimination and directional eye movement control while following a line of print.

What do I need? "Letter Tracking" worksheet, pencil or pen

Instructions:

1. The patient should be seated comfortably with good lighting, maintaining good posture, proper reading distance, and no head tilting.
2. The task is to circle the letters of the alphabet in order in each paragraph of nonsense words beginning with the first line.
3. Upon completing the alphabet, record how long it took in the space provided at the end of each paragraph.
4. Each line of print has at least one letter that will be needed to complete the alphabet sequence. If a whole line is scanned without finding a needed letter, a mistake has been made. Have the patient go back to the last letter found/circled and start again from that point.
5. Encourage the patient to sequence the alphabet without having to look at the alphabet list at the top of the page.

Activity Goal: To complete each paragraph constantly in under 1 minute with no errors. Ultimately, to complete paragraphs of very small text in less than 1 minute with no errors.

Variations:

1. As an introductory activity, the patient may be assigned to circle one vowel letter (a, e, i, o, u) per paragraph of text. After mastering the technique, they will increase in difficulty to circle the alphabet.
2. If instructed, the patient will perform the activity with a patch over one eye.

Marsden Ball

What am I doing? Reciting letters from a swinging ball suspended from the ceiling

Why? To practice smooth, side-to-side eye movements.

What do I need? Marsden ball & eye patch

Instructions:

1. Suspend the Marsden ball from the ceiling (or center of doorway) at eye level. The patient should stand at arm's length from the ball.
2. Patient should cover one eye with the eye patch.
3. Swing ball from side to side and have patient recite letters on the ball as it passes by. The patient should keep their eyes on the ball, but keeping their head and body still.
4. Remove the patch and repeat using the other eye.

Activity Goal: To track the ball by moving the eyes only, keeping the head and body still. The patient should be able to read as many letters as possible when the ball passes in front of them.

Variations:

1. Position the patient farther from the Marsden Ball.
2. Have the patient stand on one foot then the other
3. This exercise is first assigned using the eye patch. Once the patient can do each eye individually, the activity will be assigned using both eyes at the same time.

Near-Far Chart

What am I doing? Reading letters, alternating between a wall chart and a smaller chart in the patient's hand

Why? To shift the focus quickly and accurately as the patient changes their gaze from far to near or from near to far.

What do I need? Two Near-Far charts (one small, one large)

Instructions:

1. Hang the larger chart on the wall at the patient's eye level, with the larger characters facing the patient. The patient should stand about 6 feet away from the chart.
2. Have the patient hold the smaller chart with corresponding larger characters (side A) in front of him at a normal reading distance.
3. The patient begins by focusing on the first character on the first row of the small chart, and reads it aloud. Then they quickly look to the wall chart and reads the second character, first row. The patient shifts focus back to the small chart and reads the third character, first row and continues until he reaches the last character in the first row.
4. Once he has completed row 1, he now brings the small chart 1-2" closer to his eyes. This will increase the difficulty level with the amount of focusing required. After completing each row, have him bring the small chart closer until he reaches the end of the chart.
5. In order to perform the exercise, the patient must bring the smaller chart closer to him at the end of each row. When he reaches the end of the bottom row, he rests for a minute. Have the patient note the distance of the small chart from his nose. After relaxing, the patient resumes the exercise at the distance where he paused, starting at the first character in the first row.
6. When the patient can read the characters quickly (about one per second) without mistakes or hesitation and the small card positioned about 5 or 6" from his eyes, the patient repeats the procedure with the smaller characters on side B of both charts.

Activity Goal: To be able to confidently read both the distance and near letters with the card held 5 or 6" inches from the eyes.

Pencil Saccades

What am I doing? Looking back and forth between 2 pencils, reading letters.

Why? To help improve the ability to quickly and accurately move the eyes back and forth.

What do I need? Eye Patch, Saccade pencils (2)

Instructions:

1. Have the patient stand up straight with feet shoulder-width apart. The home assistant starts by doing the activity with one eye covered with the patch provided. Hold the saccade pencils at the patient's eye level a few inches apart. Position the pencil so that on one the A-Z side is visible and the other so the Z-A side is showing. Begin by having patient read aloud the letter on the top left followed by the letter on the top right. Patient continues this pattern all the way down the pencil.
2. Watch carefully to ensure that there is no head or body movement during the activity.
3. Patient repeats starting at the bottom and working towards the top.

Activity Goal: Strive for accurate and smooth, consistent responses with no head or body movement.

Variations: Increase the distance between the pencils, a few inches at a time.

Pointer and Straw

What am I doing? Inserting a pointer into a straw located at different areas of gaze

Why? To extend ranges of eye-hand coordination in the near area

What do I need? Drinking straw, 1 pointer (pick-up stick)

Instructions:

1. Hold a straw perpendicular/ horizontally in front of the standing patient.
2. Patient will have one pointer in his/her dominant hand, holding pointer in the middle of the length.
3. Instruct patient to look steadily at the middle of the straw while seeing the whole straw.
4. Have patient start with the pointer near and just behind the ear, then slowly reach out and attempt to pierce the hole/end of the straw on the first try.
5. Shift straw (or tube) to different areas of gaze and repeat (higher, lower, nearer, farther, left, or right, horizontal, vertical).

Activity Goal: Simultaneous, accurate piercing of end of the straw when looking at the center of the straw, while maintaining balance throughout the activity.

Variations:

1. If the straw is difficult, use a paper towel tube or roll a piece of paper to a similar diameter. Use index finger instead of pointer. Begin to reduce the paper tube diameter as progress is seen.
2. To make the activity more challenging, encourage the patient to use their non-dominant hand, or switch back and forth between hands each time.
3. Attempt to pierce the straw (or tube) while it is in motion.
4. Perform while standing on one foot.

Vision Therapy Online Resources

Bright Eyes Family Vision Care

Online copy of Home Therapy Manual:

<http://brighteyestampa.com/HomeManual.pdf>

Our website:

<http://brighteyestampa.com>

Our Blog:

<http://brighteyesnews.wordpress.com/>

Specifically, you can go to the Vision Therapy and Children's Vision categories on right side of the page.

Great Info on Vision Therapy

Optometrist Network:

http://www.optometrists.org/public_eye_care.html

College of Optometrists in Vision Development:

<http://covd.org/>

Parents Active in Vision Education:

<http://www.pavevision.org/>

Optometric Extension Program Foundation

<http://www.oep.org/>

Online Discussion Groups

Vision Therapy:

http://health.groups.yahoo.com/group/vision_therapy

Lazy Eye:

<http://health.groups.yahoo.com/group/LazyEye>

Notes:

Scientific Literature on Vision therapy

Note: The electronic version of this document found at <http://brihteyestampa.com/HomeManual.pdf> has clickable links to more information on all of these studies

Convergence Insufficiency Treatment Trial Papers

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