Questions to answer

- What is Vision?
- What is Optometric Vision Therapy?
- Who can benefit from Vision Therapy?
- What research is out there on Vision Therapy?
- What resources are available to learn more?

What is vision?

- Seeing
- Processing
- Directing action in response to visual information
- The eyes, brain and body working together
- A learned process

Vision Guides Motor

Volunteer?

Vision Guides

If a child is not receiving accurate visual input, how can she develop normally?

The brain adapts beautifully so real problems may not present until there is a higher demand or may never present at all.

AVOIDANCE
Vision Problems

Why doesn’t a child tell you he has a vision problem?

He doesn’t know his vision is different!

We take vision for granted and don’t always know what to watch for

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Optometric Vision Therapy

• A progressive program of vision procedures
• Performed under doctor supervision
• Individualized to fit the visual needs of each patient
• Conducted in-office, in once or twice weekly sessions of 30 minutes to an hour
• Supplemented with procedures done at home between office visits

Optometric Vision Therapy

Build AWARENESS
Develop CONTROL
Make it AUTOMATIC

Therapy for the BRAIN, not the eye muscles alone

VT in Action: Brock String

Volunteer?

Optometric Vision Therapy

Learning happens when the brain is challenged but not frustrated
Why we need a skilled vision therapist to work with a patient – achieve higher level thinking so it’s not “business as usual”
Basic repetition is NOT the answer – we are not building eye muscle strength, we are building the brain’s control of the eyes and processing of visual information!
What is Vision?
What is Optometric Vision Therapy?

Who can benefit from Vision Therapy?

Who can benefit from Vision Therapy?

Infants
Children
Adults

Who Can Benefit?

Learning-related vision problems
“Lazy” eye (amblyopia and strabismus)
Traumatic brain injury
Autism spectrum

Mike

7 years old
Math is great! So is recess...
Allergic to reading
Spelling, writing are both hard
Sees 20/20, “vision” checked at pediatrician every year

Convergence insufficiency, trouble with focusing and tracking
Vision therapy for 12 weeks – reading is improving, able to read handwriting now!
Plan – continue vision therapy to get stability and also work on visual memory to help with spelling
Tina
- Stroke in utero
- Lots of challenges with development
- Esotropia
- Worked in vision therapy for over a year – hitting developmental milestones, eye turn is less

Monica
- Car accident
- Single mother of 4, works full time – high functioning!
- After the accident, on the outside everything seemed ok
- Visual fatigue, driving uncomfortable, dizziness, motion sickness in a crowded room/grocery store
- After 12 sessions of vision therapy, she no longer gets dizzy, can last much longer before getting tired. 12 more sessions to gain stability, may need more after that.

Fixing My Gaze
- Susan Barry, PhD in neurobiology
- Neuroplasticity enables the patient to change the visual brain
- Had multiple eye surgeries for eye turn as a child
- Learning to read and drive were difficult
- Gained 3-D for the first time through vision therapy when 40

Jillian’s Story and Dear Jillian
- Diagnosed with amblyopia at 5 years old
- Did patching and glasses but continued to struggle with reading
- Acuity was improved with earlier treatment but it wasn’t until she had vision therapy that she began to enjoy reading
- Functional help, real life changes

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Research
- Not an all-inclusive list – just the highlights
- For more, see the online Optometry and Visual Performance Journal
  http://www.ovpjournal.org/
Vision Therapy Research

Convergence Insufficiency Treatment Trials (CITT)
- NIH-funded, double-blind, placebo study
- Found that in-office Optometric Vision Therapy was the most effective way to treat convergence insufficiency (CI)
- Compared to placebo and home therapy
- Symptoms reduced
- Future study: how treatment affects reading

Brain Research

Neuroplasticity
- Vision therapy is effective because it taps into the neuroplasticity of the brain
- It works for all ages because neuroplasticity never ends!

Old Dogs Learning New Tricks: Neuroplasticity Beyond the Juvenile Period
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3756134/

Amblyopia research

- Patching is becoming more and more outdated
- Research suggests that training both eyes at the same time with specially designed exercises is more successful at improving acuity than patching

Article from BBC News last year:
Effectively reducing sensory eye dominance with a push-pull perceptual learning protocol.

Concussion Research

- Preliminary study at University of Cincinnati
- Vision training correlated with a decrease in concussions in football players at University of Cincinnati
- Intensive training before season with maintenance during the season
- Significantly lower incidence of concussions in the vision training group

An Exploratory Study of the Potential Effects of Vision Training on Concussion Incidence in Football:
http://viewer.zmags.com/publication/b1f8937d#/
News article: http://healthnews.uc.edu/news/?/26057

Books to Read

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Books to Read

- Fixing My Gaze
- When Your Child Struggles
- Jillian's Story
- Dear Jillian
- See It, Say It, Do it
- Seeing Through New Eyes
- Eye Power
- The Mislabeled Child

Resources

- [www.visionhelp.com](http://www.visionhelp.com)
- [www.alderwoodvisiontherapy.com](http://www.alderwoodvisiontherapy.com)
- [www.covd.org](http://www.covd.org)
- [www.pavevision.org](http://www.pavevision.org)
- [www.aoa.org](http://www.aoa.org)

Questions?