

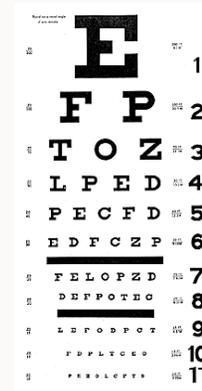
# LEARNING DISABILITIES

What you want to know - Vision



# VISION - WHAT IS GOOD VISION?

- Good vision, to most of us, means:
  - healthy eyes
  - being able to see 20/20



## WHAT IS "20/20" ANYHOW?

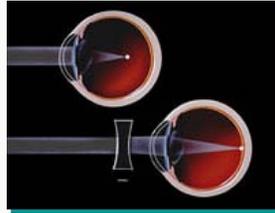
- 20/20 means that you can identify a letter (or other symbol) that is  $\frac{1}{3}$  of an inch high, 20 feet away.
- 20/20 is the normal visual *acuity*, or clarity, for most people.

## WHAT IF THE VISUAL ACUITY IS NOT 20/20?

- If the visual acuity is less than 20/20, such as 20/80, there may be a need for glasses or contact lenses to compensate for conditions such as...

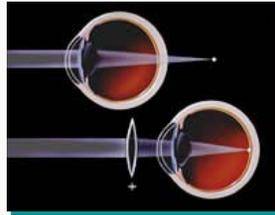
# WHAT IF THE VISUAL ACUITY IS NOT 20/20?

- Nearsightedness, or “myopia”



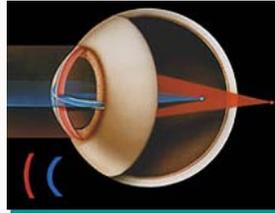
# WHAT IF THE VISUAL ACUITY IS NOT 20/20?

- Farsightedness, or “hyperopia”



# WHAT IF THE VISUAL ACUITY IS NOT 20/20?

- “Astigmatism”



## WHAT IF THE VISUAL ACUITY IS NOT 20/20?

- If the eyes are nearsighted, farsighted, and/or have astigmatism, glasses or contact lenses can usually be used to improve the visual acuity to 20/20.



# VISION - WHAT IS GOOD VISION?

- Good vision means:
  - healthy eyes
  - being able to see 20/20
- That's all there is to it, right????!!!



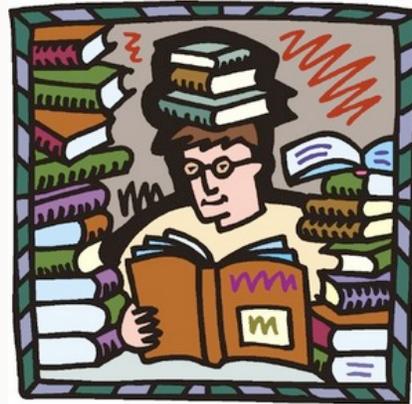
# VISION - WHAT IS GOOD VISION?

- Good vision means:
  - healthy eyes
  - being able to see 20/20



- That's all there is to it, right????!!! Probably not.

# LEARNING-RELATED VISUAL ABILITIES



## LEARNING-RELATED VISUAL ABILITIES

- Eye Movement Abilities
- Eye Teaming Abilities
- Focusing Abilities
- Perceptual Abilities

## LEARNING-RELATED VISUAL ABILITIES

- Eye Movement Abilities
  - The eyes need to be able to move smoothly and accurately.

video next – poor pursuits – preface fixation wand

## LEARNING-RELATED VISUAL ABILITIES



v comprehension demo next

# LEARNING-RELATED VISUAL ABILITIES

cead s en sw n m g Cal  
re t e d t i a r t o n m . C a u s p  
fo h m t t t t f e d r t l r  
fu u i s s w b t t n e n y v o  
o o s e l i d e a h g l a e o c  
t t y o o n t a c p e n i t d m u l e  
o t D g a h e a i n s i e a s s  
d e s h i h r u a l o e r f v a c c s  
e m A i c t g s s e g e f o p i  
e n o n s a o e s t t d i m p n f  
g v k l l g o t i t n o n c r a r h o  
i e g l l n d e e e u u e e e c m  
s n o i t i t y e r h t l y c c m  
e y i f k h d e l e r w h s t e i e  
d o d s a a y u e p e . a m t h  
u o t t e e c m h r k k e t h e  
s r e h t t r m f v s i e m f t h p  
a r e n t h h o f e h e h x t t p e  
w e c m e t v i m g n t t d y e h e  
e e l h e y l e d e u t . n o v e g r  
s s i l v w m n o a o a u o n c  
i h l o m e e e t h t t T a u r d i e  
c i w d m a e n r s t i h d p p i t p  
r n r y l t o l o u i e r m f a t  
e y e e h u s r y p c i f r u a  
x a a n y h u s r y p c i f r u a  
e w e a o k s e . i s s t n c p l  
d w v r l i t t s l i a u e ?  
s i t i r e t l d n e o r c c i s  
i f n t o l t i e r r w u e t  
h f e h o m e s I f r e i s o u y n  
T e r p o r ? f e q u y y o i

What do you notice about your reading?

## LEARNING-RELATED VISUAL ABILITIES

- Eye Movement Abilities - signs of dysfunction
  - Slow reading speed; slow, inaccurate copying
  - Decreased reading comprehension
  - Word reversals (small words such as was/saw)

v comprehension demo next

## LEARNING-RELATED VISUAL ABILITIES

- Eye Movement Abilities - signs of dysfunction
  - Skipping lines/words accidentally while reading
  - Re-reading lines accidentally
  - “Head-Mover” with reading

## LEARNING-RELATED VISUAL ABILITIES

- Eye Teaming Abilities
  - The eyes need to aim accurately and with good stamina.

LEARNING-RELATED  
VISUAL ABILITIES



Exotropia

## LEARNING-RELATED VISUAL ABILITIES



Esotropia – sometimes, glasses can help eye-teaming problems

# LEARNING-RELATED VISUAL ABILITIES

- Eye Training Abilities signs of dysfunction
- Double vision
- Blurred vision
- Print moving/swimming when reading
- Headaches after close work

## LEARNING-RELATED VISUAL ABILITIES

- Eye Teaming Abilities - signs of dysfunction
  - Double vision
  - Blurred vision
  - Print moving / swimming when reading
  - Headaches after close work

## LEARNING-RELATED VISUAL ABILITIES

- Eye Teaming Abilities - signs of dysfunction
  - Avoidance of close work
  - Poor concentration and comprehension with nearpoint work
  - Inability to sustain nearpoint work after a short time period

## LEARNING-RELATED VISUAL ABILITIES

- Eye Focusing Abilities
  - The eyes need to be able to clearly and comfortably sustain clear vision

## LEARNING-RELATED VISUAL ABILITIES

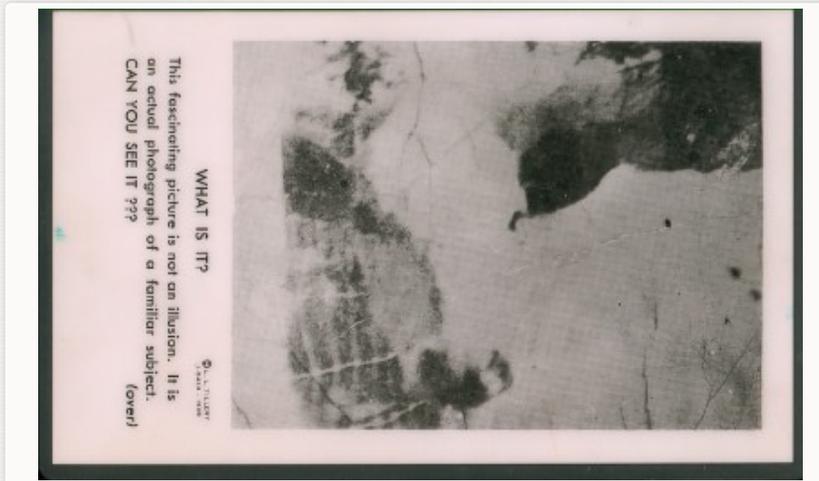
- Eye Focusing Abilities - signs of dysfunction
  - Blurred vision - far, near, or both
  - Watery, red, and/or burning eyes with nearpoint work
  - Inability to sustain nearpoint work

## LEARNING-RELATED VISUAL ABILITIES

- Vision Perception - the ability to have meaning and understanding from what you see.

What does that mean?

# LEARNING-RELATED VISUAL ABILITIES



What is it?

## LEARNING-RELATED VISUAL ABILITIES

- Vision Perception - signs of dysfunction
  - Letter and word reversals in reading, writing
  - Confusing words with similar beginnings or endings
  - Not recognizing a word just read

## LEARNING-RELATED VISUAL ABILITIES

- Vision Perception - signs of dysfunction
  - Inability to visualize material read
  - Difficulty with reading and/or spelling despite educational intervention
  - Overwhelmed by too much text on a page

# LEARNING-RELATED VISUAL ABILITIES

- How can we help someone with learning-related visual disabilities?



## HOW TO HELP: GLASSES

- Therapeutic glasses (as opposed to glasses for refractive problems)



## HOW TO HELP: VISION THERAPY

- Vision Therapy - What's That??!

## HOW TO HELP: VISION THERAPY

- Vision Therapy - “Physical Therapy for the Vision System” - a “learning-by-doing” approach to improving the visual abilities
- This improves the efficiency of the visual system, reducing the visually-related symptoms



## FOR MORE INFORMATION:

- [COVD.org](http://COVD.org)



- [OEPF.org](http://OEPF.org)

OEP  The Optometric Extension Program Foundation

- [VisionEnhancementCenter.com](http://VisionEnhancementCenter.com)/951-686-3937

# QUESTIONS?

