Training for Job Placement Providers to Assist Individuals with Vision Loss Find Employment

SESSION #1
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Overview

- Introductions
- Misconceptions
- Anatomy of the Eye
- How we see
- Definitions
- Statistics

- Handout – cross section of the eye

*Please put questions into the chat box & make sure to mute yourself.
Opening Round

► Introduce yourself:
  ► name, business, location
► What do you know about blindness?
► What myths have you heard about blindness/vision loss?
Misconceptions

- People with blindness see black.
- Other senses improve – they hear better than others.
- All people with blindness need to use a cane (only 2% of blind use a cane – only 2% use a dog guide).
- All people with blindness need to use Braille and can read Braille (only 2% of blind read Braille).
Everything a person with blindness does is amazing and super-human.

People with blindness become very wise and insightful.

All people with vision loss need to be supervised all the time. They can’t take care of themselves or do work. They are incapable, dependent, and needy.

Blindness is worse than death, punishment for sin.

Dog guides can take a person with blindness anywhere the blind person wants to go.
Misconceptions cont.

- People with blindness are always looking for a cure.
- They sat too close to the TV (monitor).
- Their eyes hurt, they didn’t take care of it, and they hurt their eyes.
- People who have never had vision do not dream visually – they commonly dream including feeling, sounds, tastes, and smells. If they have had vision, dreams can be quite visually vivid.
Anatomy of the Eye
Cornea

- Window of the Eye
- Refractive power
- Extremely transparent
- Protection – very sensitive
- Nutrition, oxygen, and hydration comes from inside the eye
- Has no blood vessels
Sclera

- Protection for the inner structure
  - Leathery
- Opaque
- Has blood vessels
Aqueous

- Maintains the shape and pressure of the eye
- Nutrition, oxygen, and hydration to cornea and lens
- Refreshed every 6-8 hours
- Normal range of IOP is 11-20
Iris

- The colored part of the eye
- Controls light coming into the eye
- Moderates temperature of the eye
Lens

- Focuses the image
- Extremely transparent
- Flexibility for accommodation
  - Rounder for near
  - Flatter for distance
- Keeps vitreous in place
The vitreous maintains the shape of the eye.
  - Fills the entire back of the eye.
- Extremely transparent
- Consistency of Jello
- Keeps retina in contact with the blood supply layer
Retina

- Receives light
- Back part of the eye
- Provide central and peripheral view
- Sensitive to light
- Includes the macula
- Not attached
Macula

- The center portion of the posterior retina
- Central vision
- Mostly cones (seeing color and sharpness)
Choroid

- Support layer immediately below retina
- Provides blood supply to the retina
- Passageway for nerves
Optic Nerve Head

- The exit point for the optic nerve
- Where blood vessels enter the eye
- Creates a blind spot
Blood supply for the inside of the eye comes through the optic nerve.

Carries messages from the eye ball to the brain.
Occipital Lobe

- Located at the back of the brain.
- Is the main location for vision in the brain.
- Not the only places that gives us visual perception.
Questions???
How We See

- **Light**
  - We need light to see
  - 2 types: direct and reflected
  - Characteristics
    - Brightness
    - Color
    - Direction – Usable and valuable vs. glare
      - Closer to the light source = brighter and more vivid color
      - Farther from the light source = dimmer and grayer
    - Narrower angle of reflection = brighter
    - Ambient vs. focused
How We See cont.

- **Color**
  - Direct
  - Reflected

- **Glare**
  - Angle of light
  - Reflection
  - Light sources
Definitions

- Legal blindness – 20/200 or less in the better eye or fields of 20° or less in the better eye.

- Totally blind & Blindness – Usually thought to be “black blind”, but most considered “blind” can see something – light, colors, shadows.

- Visual Impairment – usually considered anyone who has any vision loss beyond normal vision after any correction with glasses, contacts, or treatment – usually between 20/60 and 20/200.
Other vision problems to note:

- Night blindness
- Depth perception
- Double vision
- Variability in vision functioning throughout the day
- Fatigue and “blurring out”
Blindness Statistics

- Blind or visually impaired in Sioux Falls – @ 2,200 people
- In South Dakota – @ 9,000 – 15,000
- In US – @ 14 million (estimates vary widely – difficult to gather accurate stats)
- In the world – estimated as high as 285 million (about the population of the US)
- 8 out of 10 people over the age of 75 have some functional vision loss
- Hearing Loss – Half of those with vision loss over the age of 75 also have hearing loss.
Questions???
Next Session:

▶ Common eye diseases and how to accommodate them.

▶ Thank you!
▶ Bob and Kellie with the Rehabilitation Center for the Blind