



ORIENTATION AND MOBILITY

**traveling in the world of the person
with a Visual Impairment**

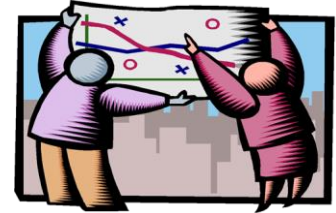
Objectives

By the end of this seminar the participant will be able to:

- Identify the role an orientation and mobility specialist plays in vision rehabilitation
- Describe the importance of direct teaching with individuals with a visual impairment
- Describe at least two guidance strategies
- Relate the concept of the five points of travel

Orientation and Mobility (O&M)

Orientation and Mobility Specialist

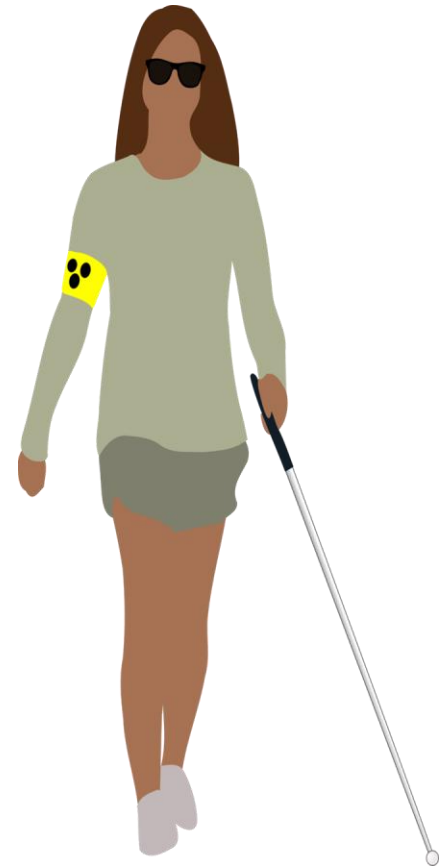


- **Orientation-** Where am I?
- **Mobility-** How do I travel to my destination?
- **O&M specialists address:**
 - Skills for independent travel and community access for people with vision loss
 - Negotiating environment and maintaining orientation
 - Offer support to family and staff

How can someone with a visual impairment travel safely?



- Wheelchair
- White cane
- Sighted/human guide



- Walker

The vision team



- Optometrists
- Ophthalmologists
- Low vision specialists
- Teachers of the visually impaired (TVI)
- Orientation and Mobility Specialists
- Occupational Therapists
- Vision Rehabilitation Therapists/Teachers
- Rehabilitation counselors

Direct instruction versus incidental learning

- Incidental:
 - (3) distance senses
 - learning about the environment through scanning and comparing
- Direct:
 - (2) distance senses
 - Learning about the environment through auditory scanning, movement, smell, and capitalizing on any remaining vision
 - PLUS direct instruction



COGNITIVE MAP

Through incidental learning heavily supported by direct instruction, individuals build a cognitive map of the environment

Individuals with visual impairment need to be taught earlier in some skills because repetition and overlearning is key to map building



Guidance

- Trailing and voice guide
- Human guide
- White (long) cane
- Dog guide
- Electronic travel aids (ETA)
 - Sunu band (wrist band/blue tooth)
 - Laser cane (emits laser beams for obstacles)
 - Sonicguide spectacles (ultrasounds in the environment) – use with long cane/dog

HUMAN GUIDE

HOW TO GUIDE A PERSON

WITH A VISUAL IMPAIRMENT

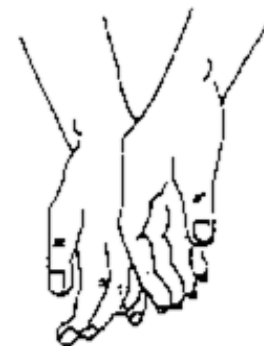


Etiquette

- Announce name
- Speak directly to the individual at a normal volume
- Ask if assistance is needed
- Do not push or pull
- Give left/right directions
- Describe surroundings
- Verbally indicate surface changes
- Inform when destination is reached, describe the route
- Do not leave the individual in open space

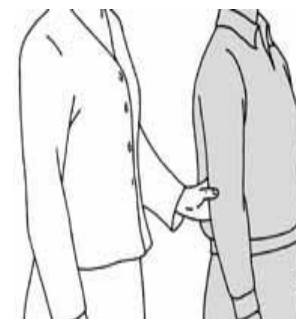
Basic Human Guide

- Offer arm by tapping back of hand against client's hand.



- Individual grasps arm just above elbow
- Firm grip

- Stay 1/2 step ahead of client
- Individual's arm at 90 degrees
- Relaxed and comfortable pace



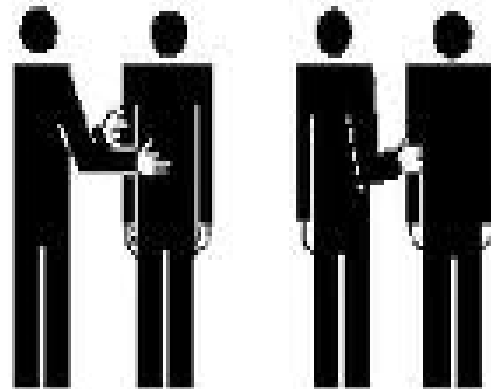
Supported Basic Sighted Guide

- If someone needs extra support, appears off balance, or uncomfortable, bend your supporting arm to 90 degrees so the individual can apply weight to your arm.



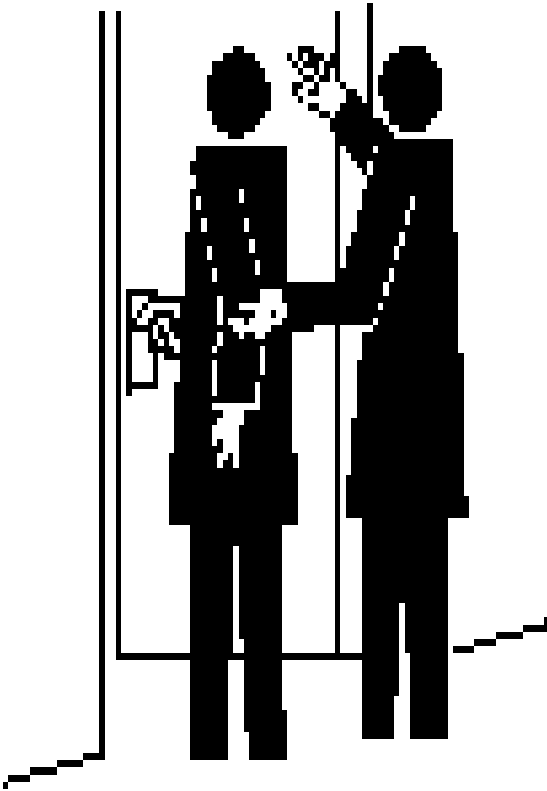
Changing Sides

- Individual places the back of free hand just above grip on the guide's arm
- Individual moves the original grip hand across guide's back to guide's other arm
- Individual sidesteps into new position on guide's other side, resuming grip with the appropriate hand.



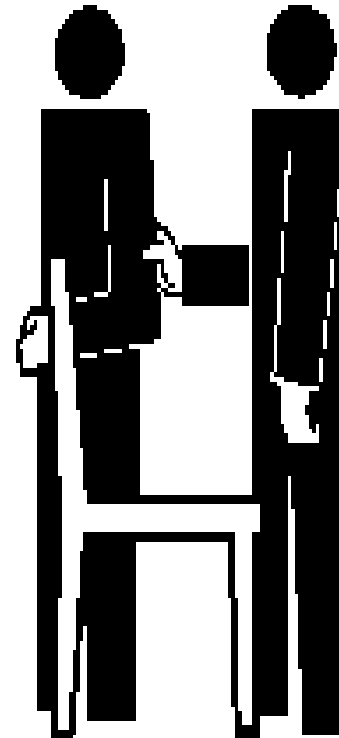
Doorways

- Give narrow passageways signal
- Indicate if door is push or pull and if it opens to left or right
- Individual puts arm up to hold door
- Walk through door and return to basic hold



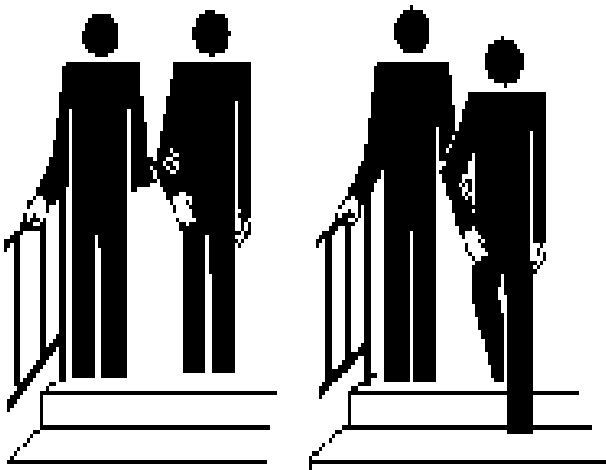
Seating

- Place individual's hand on back of seat
- OR guide individual to chair so shins lightly touch front of seat
- Inform if individual is in front/back of seat
- Allow individual to sit



Stairs

- Approach edge of steps
- Pause at edge of the first step.
- Individual brings toes to edge of step
- Take the first step
- Individual follows guide's pace, one step behind.
- Pause after completing the stairs, announce stairs are complete



video of human guide

- <https://www.youtube.com/watch?v=tl62s2MIKEw&list=PLpAOW00xNyybYZ7EmTk3nSvSNoPGK3r7E&index=1>

White (Long) Cane



A few notes about the white cane:

A white cane is used in a sweeping arc to anticipate ground obstacles or drops ahead. It does not identify objects at head height. That is where upper body protective techniques or even electronic travel aids can help.

Various types of canes (folding or rigid, NFB canes) and types of cane tips are used depending on the individual's needs.

An individual may choose to use the cane or not when using human guide.

A white cane is NOT to be used as a support cane. Support canes can be marked with the white and red universally known markings for identification purposes but support canes are not suitable to be functionally used as a white cane.

The 5 Point Travel System

For Orientation and Mobility Specialists teaching the 5 point travel system is a systematic approach that enables the individual with a visual impairment to make use of additional information when traveling in order to maintain orientation

1. The shape of the route (according to the braille cell: I shaped, L shaped, U route, Z route)
2. Compass (cardinal) direction
3. Names of streets/hallways
4. Landmarks
5. All of the above in reverse order

Other Orientation and Mobility Skills

- Body alignment – body planes
- Self protection techniques
- Echolocation
- Cane techniques
- All of the above are incorporated into practical application such as
 - Street crossings/intersections
 - Walking through open space
 - Using public transportation
 - Familiarization strategies in new environments
 - Self advocacy

References/sources

- <https://www.cnib.ca/en/sight-loss-info/when-someone-you-know-blind?region=gta>

references/sources

- Jacobson, W.H.: 1993 The Art and Science of Teaching Orientation and Mobility to Persons with Visual Impairments, AFB Press
- Weiner, W., Welsh, R., Blasch, B: 2010 Foundations of Orientation and Mobility Instructional Strategies and Practical Applications, third ed. AFB Press
- Great source of video information for training and other sources: Canadian National Institute for the Blind: <https://www.cnib.ca/en/sight-loss-info/when-someone-you-know-blind?region=gt>
- National Federation of the Blind: <https://www.nfb.org>
- American Foundation for the Blind: <https://www.afb.org>
- Pediatric information from the Perkins School for the Blind: <https://www.perkins.org/school>
- Massachusetts Association for the Blind: <https://www.mabcommunity.org>