Mobility Skills

It is critical for individuals with visual impairments to learn to move safely, efficiently and as independently as possible through all environments. Orientation and Mobility Specialists (O&M or COMS) will work directly with the individual to provide alternatives to using sight for safe and independent travel purposes. This section provides information on the different areas of O&M instruction.

Orientation and Mobility (O&M) is a critical area for students with visual impairments as it is essential for the student to learn to move safely and efficiently and as independently as possible through all environments.  The O&M will teach the student to move safely and efficiently through their environment.

The O&M may instruct the student in how to get around in special situations (halls, stairs, doorways, curbs, restrooms, restaurants, banks, hotels, pools, parks, etc) and may also instruct the student in special techniques (trailing, "squaring off," protective technique, sighted guide), and dealing with unusual environmental encounters (ice, snow, gratings, escalators, revolving doors, elevators, trains, plains, taxis, etc.).

Although the actual travel skills will be taught by the O&M, the Teacher of Students with Visual Impairments (TVI) will assist the student by teaching basic concepts, body image, visual efficiency and follow through on instruction by the O&M.

**Movement Concepts**(go, start, stop, fast, slow, push, pull, scribble, draw, trace, bend, close, open, slide, roll (roll-up), fold, hold, insert, place (put), put together, reach, sit, squeeze, turn, take apart, follow.) An understanding of movement concepts is important for following directions as well as in the development of orientation and mobility skills. Modeling these activities and providing fun games to practice these skills is a natural way to develop movement concepts.

**Trailing**

Trailing is a technique that most students will use in order to move safely through hallways and through rooms as well as to orient themselves as they travel. It is a way of moving the fingers along a surface. Keep this in mind when displaying students’ projects in the hallway. The O&M will instruct the student on the proper trailing technique which uses the back of the hand to lightly trail along a wall or surface. The student should be encouraged to touch the wall with the back of the hand nearest the wall. The student should lightly/gently touch and use the back of their fingers (knuckles of the index and middle fingers) along the wall while walking.

When a student is using a trailing technique to explore a new room, help them explore the perimeter of the room and then have them investigate the center of the room using a crisscross pattern.

**Tips:**
Although the O&M instructor will encourage the student to use a light touch, it is best to place materials at a height that they will not be accidentally ripped or torn.  You may also want to consider placing a strong, textured collage at a student’s handrail height to provide motivation for maintaining a trailing technique. This will help the student realize where it is in relation to other activity areas and classrooms. The art teacher may embrace this idea and design permanent three-dimensional collages specific to key areas of the building. You may also consider attaching interesting items (balloon, braille message, sticker, etc.) along a familiar trailing surface for the student to locate.  These activities will increase a student's motivation for maintaining contact while trailing.

**Systematic Search Techniques**
Students need to learn how to use a systematic search pattern to locate items that have rolled away or fallen. Teach students to stop and listen as soon as an object falls. Encourage them to try to hear where it struck the floor, rather than automatically reaching for it. Show them how to use their hand to make sweeps left to right. If they can't find it, then so forward or backward.

**Self-Protective Techniques**

* Upper-hand-and-forearm technique. This technique is helpful in protecting the upper body, especially the head and chest. This protects the student from head-high hazards such as tree limbs.  This can also help protect the head when searching for a dropped item under a desk or table. In this technique, the student stretches their arm out in front at should height with it slightly bent at the elbow. The forearm should be parallel to the shoulders and the hand in line with the opposite shoulder. The student's hand should be turned with the palm faced out and fingers facing forward.
* Lower-hand-and-forearm technique. This technique is helpful in protecting the lower body, especially the abdomen and groin when traveling short distances. This is similar to the above technique, but the student lowers their arm to about 12 inches in front of the opposite thigh.

**Cane Skills**

The O&M may encourage the younger student to use push-toys or other alternative mobility devices (frequently called pre-canes) to help teach the student that something he pushes in front of him can bump into an object first.  The student can then identify and/or maneuver around the item. Older students may be instructed in the proper use of the long cane. There are different canes as well as different techniques and the O&M should collaborate with all team members to ensure that everyone working with the student can confidently carry over the skills throughout the day.

**Additional Resources...**



The **[Sunu Band](https://www.indiegogo.com/projects/sunu-ultrasonic-wearable-to-heighten-perception%22%20%5Cl%20%22/%22%20%5Ct%20%22_blank)**is an inclusive smart-bracelet along with an object tracker that empowers mobility and independence for people who are visually impaired. It uses ultrasonic technology to sense the user’s surroundings and deliver haptic feedback on the user's wrist to indicate proximity. It can also provide the time with a discrete vibrational watch feature and can help locate missing objects with the Sunu Tag (a keychain size beacon like device) that can be clipped to any personal object. The Sunu Band helps the user detect and locate obstacles up to 13 feet away, find thresholds or openings to walk through, follow or avoid people in the vicinity with precision and feel what’s around without physical contact.