

VISION ASSESSMENT IN A SCHOOL ENVIRONMENT

Functional Vision of Students With Usher Syndrome

1. Signs and Symptoms

- Night Blindness
- Blind Spots
- Balance Problems
- Difficulty Adapting to Light Changes
- Peripheral Vision Loss
- Glare Discomfort
- Acuity Problems

2. Lighting

- The difficulty is moving from a well lighted area to a dimly lighted area.
- Check halls, stairs, foyers and gathering places.
- Check “night lights” for position and amount of illumination.
- Check outside lights over the front door and side or back doors.
- Check parking lot lights.
- Check the lighting in the student’s room. Is it sufficient, non-glare lighting. Does the student have a “goose neck” lamp that can direct the light on the task avoiding glare in his/her eyes.
- Do the windows in the student’s room face north, south, east or west? There should be blinds that close tightly and/or drapes that will prevent sun glare at certain times of the day.

3. Size and Contrast of print.

- Large black letters (Arial black, bolded) printed on pale yellow or buff colored paper is the easiest to read.
- Font size should be 18 pt or larger.
- Calendar of events or a notice of changes in schedule should be posted under a light source for better viewing.
- A large red or green arrow will draw attention to information recently posted.
- A specific area on the bulletin board for “new releases” will make location of information more accessible.

4. Activities

- Due to loss of peripheral vision tracking a ball becomes difficult and eventually impossible.
- Board games such as chess, checkers, backgammon, monopoly, scrabble etc. are popular favorites.
- Ping pong is a favorite for a longer time than baseball, football, soccer etc.
- Mind games such as metal puzzles, Rubik cube, soduko, etc are popular.
- Wrestling is a popular physical sport.
- Computer and arcade games are very popular.
- Invite adults with Usher syndrome to participate in discussions or activities with the students. Role models are important.

5. Be A Good Detective

- Observe color contrast between skin tone and clothing. Make suggestions for better contrast especially for residential staff, coaches, and trainers.
- Observe balance problems which are more prevalent with students who have Usher syndrome type I.
- Many teens know by the age 12 or 14 that something is very wrong with their eyes. Observe the following items which indicate a loss of peripheral vision and increased light sensitivity:
 - Not responding to a person who waves HI from the side.
 - Tripping over a waste basket, pile of books or magazines etc.
 - Frequently bumps into the corner of the furniture leaving bruises on the legs.
 - Refuses to participate in evening events.
 - Requires concentration to walk from point A to point B.
 - Wears a visor or a hat with a brim both indoors and outdoors.
 - Backs away from the person signing to him/her.
 - Frequently misunderstands messages and/or directives.
 - Exhibits increasing difficulty functioning in groups.

5. **Skills To Be Taught**

- Scanning techniques
- Signing within a small space
- Use of visual tracking
- Keeping an appropriate distance to establish a larger visual field
- Using high contrast backgrounds for clothing and indoor environments
- Using appropriate font size and contrast of printed materials
- Use of interpreters if needed
- Comfort level with tactual signing
- Use of equipment to improve visual perception

6. **There Is A Time For Everything**

- There is a time for counseling, both individual and group therapy.
- There is a time for a specific and accurate diagnosis by a Retinal Specialist.
- There is a time for Parent and Sibling Support Groups.
- There is a time for the student with Usher syndrome to prepare a short but informative description of Usher syndrome they can share with other students and friends. This will reduce the multitude of questions and teasing and hopefully increase awareness and insight.
- There is a time to introduce tactile sign language for use at night and to incorporate it into their life as part of their communication system.
- There is a time to BE SAFE and introduce Orientation and Mobility techniques.
- There is a time to introduce Braille as a system of communication. Probably they are wondering how they will continue to use computers, go to college, read books and enter the professional world. Students need to maintain control and know there are ways of managing their lives successfully.