

Stop, Look and Listen?: Methods to Promote Safer Pedestrian Travel for Students with Albinism

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Please Note

- All children with albinism have unique considerations for pedestrian and orientation and mobility travel.
- This presentation provides general information and does not replace individualized O&M evaluations and services.
- Pedestrian travel encompasses many safety factors, adult supervision is necessary.

Questions:

- Does your child's school provide pedestrian safety education for the general population of students:
 - Yes
 - No
 - I don't know
- Does your child receive O&M services for pedestrian travel training?
 - Yes
 - No
 - I don't know
- What factors do you feel affect the safety of a pedestrian traveler who has albinism?

Pedestrian Travel: Risks for Children

- Vehicle/child collisions are the second main cause of death resulting from injury among children in the U.S.

- Car restraints/seats have substantially decreased injury and death for children in vehicles, but child pedestrian deaths are still a major problem
- Children: most vulnerable categories of pedestrians and are at exceptionally high risk of being struck by motor-vehicles
- (Rosenbloom et al., 2008).
- WHO: child pedestrian fatalities account for 30% of global causes of death
- Risks for all children; increase ages 5 to 9 (Simpson et al., 2003).

Are school zones safer?

- Time of day risks (Newbury et al., 2008)
- Marked school zones risks (Warsh et al., 2009)
- Additional risks for higher rate of child pedestrian-vehicle collisions
 - Lower SES
 - Reside in high density housing
 - (Tabibi et al., 2012)
- Quiet cars

Children with Special Needs

- Pedestrian risks increase substantially for children with special needs (Simpson et al., 2003)
- Children with diagnosed disabilities are **five times more likely** to become victims of pedestrian-vehicle collisions (Xiang et al., 2006)
- Additional risks for children with:
 - Cognitive disabilities and processing delays (Tabibi et al., 2012)

- Decreased visual efficiency/search ability (Barton, et al., 2012)
- ADHD are also more likely to make unsafe street crossing decisions (Stavrinos et al., 2011)

Crossing Behaviors

- Risky crossing behaviors:
 - Not paying attention to traffic
 - Not looking both ways before crossing
 - Crossing outside of a crosswalk
 - (Rosenbloom et al., 2008)
- Children are more likely to make unsafe crossing decisions when:
 - Traveling with peers (Rosenbloom et al., 2012)
 - Feeling rushed or are running late for school (Charron et al., 2012)

Risks from Drivers

- Driver behavior serious concern in pedestrian-vehicle collisions (Mitman and Ragland, 2006)
- Driver behavior and non-yielding to children (Xiang et al., 2006)
- Driver insensitivities towards pedestrians who are visually impaired (Lundav, 2001)

COMS Observations for Albinism and Pedestrian Travel

- Research has documented additional challenges for pedestrians with blindness
 - Some may/may not apply to all pedestrians with albinism

- This is an **abbreviated** list, other considerations exist, especially for individuals
- Glare/sun
 - General walking and surveying environment
 - Cross signals
- Contrast
 - Curb cuts w/o contrast
 - Cross signals
- Night
 - Glare from oncoming car headlights
 - Night vision (for some)
 - Decreased contrast and detail
- Weather conditions
 - Precipitation
 - Wet/icy surfaces
 - Limited or no snow removal or mounds blocking crosswalks and paths
- Drivers:
 - Waiving on pedestrian
 - Many people with albinism cannot see the driver waiving them on
 - Driver non-yielding
 - Blocking crosswalks
 - Distracted driving
 - Aggressive driving
- Quiet cars
- Depth perception:
 - perceiving how fast a car is approaching when trying to cross

- descending curb cuts
- Differentiating driveways
- Parking lots, back up lights

Design of the Environment

- Complexity of intersections and travel environment
- Wide, multilane intersections
- Traffic circles
- Lack of sidewalks

Supporting Pedestrian Safety and Concept Development Suggestions for Parents

- An O&M instructor should provide individualized suggestions that meet needs
 - Adaptive crossing techniques should be taught by O&M instructor
- Pre-requisite skills for future safer pedestrian travel can be taught by parents and incorporated into daily routine
- General population curriculum

NHTSA Curriculum: General Pedestrian Safety Curriculum

- Levels for K-1, 2-3, 4-5
- Parent caregiver tip sheets
 - Promotes carryover of skills
- Introduces concepts and vocabulary
 - Walker/pedestrian traffic, intersection, crosswalk
 - Safe behavior near streets
 - Wearing visible clothing
 - Parking lot safety

- Boarding/exiting school bus
- Attentive behavior, such as not using headphones or devices while walking

White Cane Law

- All 50 of the United States and DC have “White Cane” laws
- <http://acb.org/whitecane>
- Laws vary by state

Travel Teachable Moments

- Parents, take advantage of teachable moments when out
- Teach cardinal and intermediate directions
- Child should know: address and how to provide directions to home, school, etc.
- Build awareness of:
 - How intersections are constructed
 - Various turn lanes
 - Traffic circles/roundabouts
 - On/Exit ramps
 - Driveways
 - Residential and commercial
 - Helpful vocabulary:
 - Islands, medians, pork chops
 - Parallel
 - Perpendicular
 - Surge of traffic
 - Accessible/audible pedestrian signals
 - Timed/actuated signals

Pedestrian Safety around the School Bus

- Talking points
 - Driver's line of sight
 - Important to know for all vehicles
 - Blind spots
 - School bus crossing arm
 - Pick up/Drop off locations
 - Are they safe?
 - Bus steps
 - Contrast?

O&M Pedestrian Training for Students with Albinism

- Models and methods of O&M training
 - Potential differences between low vision and blindness O&M training
 - Will blindfold training help to teach crossing skills?

Advocating for Safer Pedestrian Environments

Abbreviated list

- Marked crosswalks
 - Signs/signals and clearly defined crosswalks
- Parking lot pedestrian zones
- Signage
- Signals
- Law enforcement of pedestrian law violators
 - Priority in school zones and on walking routes to schools
- White cane law awareness
- Safe Routes to School or other programs in your locality should have VI related matters addressed
- Truncated domes/contrasting surfaces

- Reporting to police if an incident occurs
 - Inform the pedestrian has a visual impairment
- Intervention instruction should include in-class and on-street instruction and provide feedback for students (Miller et al., 2004).
- Street crossing instruction and interventions must be provided to students with disabilities (Wright & Wolery, 2011).
- Specified instruction is required for students who are blind or visually impaired by orientation and mobility specialists (Wright & Wolery, 2012).
- APS where necessary
- Document: write about concerns to local officials/schools

Common Questions

- Should my child carry a white cane?
- Should I cross if a car has stopped to allow me to go?
- Should my child take driver education through the school?

Audience questions?