



AUTISM SPECTRUM DISORDER SERIES

Teenagers with Autism: The Driving Dilemma

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<http://www.specialeducationadvisor.com/autistic-teens-the-driving-dilemma/>

Depending upon where you live in the United States, the decision to let your HFASD (High Functioning Autism Spectrum Disorder) child drive could rest solely on the shoulders of parents.

If you are lucky enough to live in a state such as Pennsylvania, then all teens applying for a driver's permit must have a physician sign off on their potential driving abilities. And if you live in Michigan, Montana or Illinois (for example), then all teens also need proof of having a Graduated Driving License certificate.

That teens are impulsive, at times irrational, and often unpredictable is common knowledge. These characteristics are often even more pronounced in HFASD children.

In addition, a child with HFASD often has issues with communication, motor regulation, and social skills, all of which are factors that can impact driving skills. Very few studies have been done on these teens to assess their abilities and the potential issues regarding their safety and the safety of others on the road.

It is a statistical fact that the incidence of teen deaths and automobile accidents are closely linked. Some place automobile crashes as the number one cause of teen deaths. The Center for Disease Control reports that in 2009 8 teens ages 16-19 died everyday from motor vehicle injuries. The report goes on to state that per mile driven, "teen drivers ages 16-19 are four times more likely than older drivers to crash". Therefore, investigating how teens learn to drive and specifically how HFASD teens learn is a significant safety issue.

Occupational therapists often teach driving to adults who have had injuries that change the way they drive: spinal cord injuries for example. With the exponential increase of those being diagnosed with Autism, the role of the OT in teaching and assessing driving abilities should be an essential part of therapeutic interventions when addressing the functional capacities of teenagers in treatment.

While not all teens with autism will become drivers, it is important to note that many will. Patty Huang, MD, a developmental pediatrician at the Children's Hospital of Philadelphia (CHOP), has devised a list of predictive factors of HFASD teens who will want to and who are most likely to become drivers. This list includes but is not limited to:

- At least 17 years old
- Enrollment in full-time regular education
- Planning to attend college
- Having held a paid job outside the home
- Having a parent who has taught another teen to drive
- Inclusion of driving-related goals in his or her individualized education program (IEP)—this is where OT's can have a lot of input!

Occupational therapy, while common with the elementary school aged child, is less so with the high school teen. The OT's role in the IEP Plan would be to assess and set the driving related goals.

Research supports that teens that have participated in Graduated Drivers Licensing (GDL) programs are 38%-40% less likely to have accidents than teens that were taught by family members or by other individuals. With a GDL rights and privileges for operating a vehicle are slowly gradually graduated into a program that eventually leads to fully independent driving.

It is during that period that the occupational therapist can work on increasing rate of motor response speed, visual scanning, peripheral visual awareness, midline issues (turning the steering wheel with both hands), integrating the concept of attention concerns (radio/tape player/friends, etc.) and reciprocal motor movements both upper and lower extremities.

Creating a pre-driving competency checklist may be helpful for starting such a program in your state. Be sure add specific laws that are essential for the driver to know, process and understand.

Dr. Vanessa M. Dazio, OTD, OTR has a checklist for aging drivers that I slightly altered for the teen driver. You can read more from Dr. Dazio at: <http://www.safeaging.com/information/SkillsDriving>

Driving is multi-tasking taken to an "art form". Driving engages the total person: physically, mentally and emotionally. Being able to not only be aware of yourself, but everything around you requires practice as well a patience while learning to coordinate multiple tasks with multiple skills.

Suggested Checklist for the Teen Driver:

Physical Skills

- Focus constantly on the task of driving even in the presence of minor distractions
- Twist and turn body quickly (to see motorists or pedestrians coming from the far right and far left)
- Move the head and neck side to side, up and down, back and forth and use visual scanning techniques
- Good joint range of motion and coordination are needed to: hold, control and turn wheel reach and manipulate knobs/buttons/controls use turn signals and wipers adjust mirrors quickly move the foot from the accelerator to the brake

Visual Skills

- Good distance vision for checking intersections, highway changes, signs determine distances needed for merging into lanes, making turns, lane changing look at highway and even weather conditions look for other approaching cars observe and scan far ahead for potential safety threats or hazards observe road conditions watch for pedestrians
- Close vision is needed to: Judge the closeness of other cars, pedestrians, walkways distinguish curbs, ramps, roadways, etc. distinguish details read road signs, maps, inside car features
- Fluid peripheral vision is needed to see a moving object (like a person stepping off a curb) Hearing is used to detect:
- Determine closeness of approaching cars (by the sound of tires and engines) inside car sounds for "empty gas tank" or "check oil". odd engine sounds suggesting maintenance problems outside sounds of life: such as children playing, distracted pedestrians outside warning sounds such as car horns, trains, ambulances, sirens, screams threatening weather conditions, etc.
- Touch: The awareness of touch is needed to gauge how hard to tap the brakes or press the accelerator. It is also important to be aware of gripping the steering wheel. Fluid use of palmar and pincer grasp with and without associated reaching.

Mental/emotional Skills

- The brain is “Central Control”. It directs the body to do everything when driving. Driving requires a clear and alert mind. The new driver should not have the radio/tape player or other auditory distractor on when driving
- Quickly and correctly choose the best options in constantly changing situations quickly and correctly react to prevent or reduce accidents or injuries. To be able to quickly make the best decisions given the set of circumstances quickly recall and apply driving rules and regulations at all times.

Teens, inclusive of those with HFASD, and the desire to drive are most probably inevitable. The current statistical rate of teen automobile fatalities does not have to be. OT's can make an impact here and the sooner the better!!

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