**POWER MOBILITY USE AT HOME, SCHOOL & IN THE COMMUNITY**





**THERAPISTS’ GUIDE FOR SAFE DRIVING FOR**

**ALL POWER MOBILITY LEARNERS**

This resource is intended for use by therapists that support the child’s functioning at home, in the community and/or school setting. It has been developed by a team of occupational therapists at Sunny Hill Health Centre and is based on current (2020) research and expert clinical opinion.

**Introduction**

For new power mobility users, it is recommended that the therapist set up a plan for initial training and safe use of the power mobility device (the power mobility device may be a power wheelchair, ride-on toy car, or other specially-designed powered mobility equipment for children). Following this, ongoing training and monitoring of safe driving skills is recommended. The level of supervision and the amount of training required will depend on the age, skill level and learning style of the child.

**All adults** supervising children using power mobility devices should be trained by the child’s therapist.

In general, adult supervision should be provided to all young children1 when using a power mobility device, especially those who are new to power mobility and those who have complex conditions (such as cerebral palsy)2. Age-appropriate supervision is important for safety3. Adults should set up and closely monitor the environment so that children can safely explore and learn by doing4. Some children will always require close supervision to ensure safety, but their use of a power mobility device can promote spontaneous exploration in a safe environment to enhance overall development,play and social interaction. 5, 6

There are typically three different learning trajectories for those learning to use a power mobility device.7 These include **exploratory learners** who are just beginning to learn cause-effect and explore movement; **operational learners** who are learning to direct their movements more intentionally to maneuver around obstacles but who need ongoing supervision to be safe - their use may be limited to specific activities and environments; and **functional learners** who quickly understand how to steer and are learning to use the device to participate in activities with other children in a variety of environments.

This resource has been developed to be used in conjunction with two other documents:

1. **Supervisors Guide for Safe Driving for All Power Mobility Learners** *(hyperlinked)*

This resource should be used with every learner regardless of the child’s age, developmental level and proficiency of use.

2*.* **Learners’ Checklists for Parents/Caregivers and School Teams**

To address safe use in specific situations, please *choose* ***one*** *of the three checklists* below that *best matches* the child’s current power mobility skill level:

* [**Exploratory Learners**](http://www.seatingandmobility.ca/Libraries/Wheeled_Mobility/ChecklistforPMExplorers2020.sflb.ashx)
* [**Operational Learners**](http://www.seatingandmobility.ca/Libraries/Wheeled_Mobility/ChecklistforPMOperationalLearners2020.sflb.ashx)
* [**Functional Learners**](http://www.seatingandmobility.ca/Libraries/Wheeled_Mobility/ChecklistforPMFunctionalLearners2020.sflb.ashx)

Therapist(s) should **review** the **Supervisor’s Guide** and recommendations **with all adults** who will use the power mobility device with the child; then **individualize the appropriate editable checklist** (with parents, caregivers and/or school teams) to support the child’s safe use of the device in all desired settings. These recommendations and checklists should be **reviewed and updated regularly** by the therapist to match the child’s progress and development.





**Therapist-led Training for Safe Use of Power Mobility Devices**

A power mobility device should not be used until initial training can occur under the direction of the therapist. For some children, training will require only one or two sessions, while for others on-going training will be needed for an extended period (e.g., months or years).

The therapist along with parents, caregivers and/or school teams should arrange a date for equipment delivery and set-up, an environmental scan/evaluation and initial training.

This process may take more than one session and should include:

1. **Assessment:** Assess the child’s driving skills, both indoors and outdoors in each of the relevant settings (e.g., home, school, and community).
2. **Education & Training:** Educate and train supervising adults regarding safe use and care of the power mobility device. This is crucial, especially for new power mobility users and their caregivers. All children need time and practice to learn new skills. Power mobility use is a complex task! It may take a long time (i.e., months or years) with on-going training and support to progress from understanding cause-effect, to understanding directional control, to using the power mobility device independently for everyday activities. Therapists should identify where children are on this learning continuum and suggest suitable training strategies so that parents and caregivers can appropriately support children in their learning5,6,8,9.

Expectations should be child-specific and may change over time**.** To do this, personalize the relevant accompanying Learners’ Checklist to create **child-specific recommendations** regarding **goals** and **supervision** needs (e.g., close, stand-by or at-a-distance supervision), based on the child’s age, developmental level and abilities (i.e., **customize** **goals**, **supervision requirements** as well as **operation and use guidelines**).

Education and training regarding safe use and equipment maintenance is critical to safe and enjoyable power mobility device operation. Thus, the therapist should provide education and training regarding the following through use of the **Supervisors Guide** and **corresponding Learners’ Checklist**:

**Use Learners’ Checklist:**

* + **Specific Areas of Caution:** Review and customize the appropriate Learners’ Checklist to provide a brief written description of the relevant environment(s), including areas of caution and how to proceed (for example: at the top of a staircase or the safest way to access the playground at school).
* **Provision of Owner’s Manual:** Ensure adults/supervisors have been provided a copy or an online link to the power mobility device’s Owner’s Manual. Highlight and review all important safety recommendations.
* **Troubleshooting:** Review how to consult the Owner’s Manual or the Equipment Supplier directly for specific questions or concerns regarding technical operation and troubleshooting. Provide contact info directly on the Learners’ Checklist.
  + **Equipment Maintenance & Storage:** Review and list directly on the Learners’ Checklist how to care for batteries, battery charger use, and charging routine as well as schedules and protocols for equipment maintenance, servicing and checking for correct fit and function. Also review safe storage of power mobility device when not in use.

**Use Supervisors’ Guide:**

* **Equipment Safety & Precautions:** Review use and precautions including correct use of fastenings, when power to device should be turned on and off, how to avoid potential hazards, and use of programmable speed controls and emergency stop buttons and use of attendant controls as applicable.
* **Power Shut off & Disengaging the Motors:** Review the following information:
* How to quickly shut off the power to the mobility device.
* How to manually disengage the motor(s) in an emergency.
* **Safe Transfers:** Review safe transfer procedures and precautions to minimize risk of falls, tips or accidentally turning on/off the power source.
* **General Safety Precautions and Environmental Considerations:** Review equipment safety and precautions such as supervision requirements (indoor and/or outdoors – please use relevant Learners’ Checklist), speed guidelines, weather dependent driving precautions, pedestrian and traffic guidelines and considerations, as well as environmental safety considerations such as driving in a parking lot.
  + **Guidelines and Precautions with Gradients and Slopes, Curbs, Obstacles or Thresholds:** Reviewspecific activities and locations where the power mobility device should and should not be driven for safety reasons (for example: avoiding steep driveways, curbs or open stairways).

1. **Monitoring:** Lastly,the therapist shouldprovide guidance forsetting up a schedule regarding frequency and length of on-going practice sessions (as appropriate) as well as for monitoring progress. Please note: Children should have further assessment and training by their therapist before using the power mobility device in different settings if those settings were not covered in the initial training (e.g., home, school, community).

For additional information refer to Axelson, Minkel, Perr & Yamada’s “The Powered Wheelchair Training Guide”.10

**References:**

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