## Manual Wheelchair Skills: Navigating Curbs Dependently

Authors: Ashley Bennett, SPT; Cathy A. Larson PT, PhD

#### **Fact Sheet**

**Produced by** 



#### A Special Interest Group of



# Contact us: ANPT 5841 Cedar Lake Rd S. Ste 204 Minneapolis, MN 55416 Phone: 952.646.2038 Fax: 952.545.6073 info@neuropt.org

a component of

www.neuropt.org



#### Dependent Navigation: Caregiver Assisted

If curbs are not properly navigated, the individual in the wheelchair and the caregiver could be injured. Proper body mechanics and technique are important to ensure safety.

The following techniques allow the transporter to have increased control of the wheelchair with less stress placed on their body.<sup>2</sup>

#### **Ascending Curb Forward<sup>3</sup>**

- 1. Position the wheelchair to face the curb.
- 2. The caregiver (CG) tips the wheelchair back by pushing down on the anti-tip bar post which raises the caster wheels above the level of the curb.
- 3. The CG maintains the tilt while slowly rolling the wheelchair forward until the caster wheels can rest well over the curb.
- 4. The CG rolls the drive wheels up onto the curb by using power from their legs to roll the rear wheels up the curb while gently lifting the push handles. The wheelchair user can assist by pushing forward on the push rims.



Figure 1. Ascending curb forward with caregiver assistance.

#### Produced by



### A Special Interest Group of



#### Contact us:

ANPT
5841 Cedar Lake Rd S.
Ste 204
Minneapolis, MN 55416
Phone: 952.646.2038
Fax: 952.545.6073
info@neuropt.org
www.neuropt.org

a component of



#### **Descending Curb Backward<sup>4</sup>**

- 1. The CG positions the wheelchair backward so the drive wheels are at the edge of the curb. The CG steps down off the curb while maintaining their hold at the push handles.
- 2. The CG slowly controls the descent of the rear wheels down along the curb.
- 3. The CG tips the wheelchair back and rolls it backwards to ensure clearance of the caster wheels and footplates. The wheelchair user can assist by leaning their trunk forward.
- 4. The CG slowly lowers the wheelchair to the ground while utilizing the anti-tip bar posts for added control.



Figure 2. Descending curb backwards with caregiver assistance.

The following video provided by Craig Hospital gives a demonstration of the above instructions.<sup>5</sup> Follow the link: <a href="https://craighospital.org/resources/craighospital-wheel-chair-skills-how-to-assist-with-going-up-and-down-a-curb">https://craighospital.org/resources/craighospital-wheel-chair-skills-how-to-assist-with-going-up-and-down-a-curb</a>

#### References:

- 1. *Orientation and mobility for wheelchair users*. Louisville, KY: American Printing House for the Blind; 2016.
- 2. Johansson C, Chinworth SA. *Mobility in Context: principles of patient care skills*. Philadelphia, PA: F.A. Davis Company; 2012.
- 3. Dutton M. Patient Transfers and Mobility. In: Dutton M. eds. *Introduction to Physical Therapy and Patient Skills*. New York, NY: McGraw-Hill; 2014. https://accessphysiotherapy.mhmedical.com/content.aspx?sectionid=86198760&booki d=14 72&jumpsectionID=86198938&Resultclick=2#1110273214. Accessed October 9, 2018.
- 4. The Ohio State University: Wexner Medical Center. Taking a wheelchair up and down stairs and curbs. https://patienteducation.osumc.edu/Documents/wheel-chair.pdf. Accessed October 9, 2018.
- 5. Craig Hospital. Craig Hospital wheelchair skills: How to assist with going up and down a curb. https://craighospital.org/resources/craig-hospital-wheel-chair-skills-how-to-assist- with-going-up-and-down-a-curb. Accessed September 22, 2018.