Certified Professionals may earn .2 CEUs by completing quizzes based on selected articles in each issue of the Assistive Technology journal.

Each quiz is 12 questions in multiple-choice or true-false format. You must answer nine questions correctly (75%) to earn the .2 CEU credit. Results of the quiz will be emailed (or mailed by request) upon completion. Complete the quiz by circling the correct answers. Mail or fax the completed quiz with payment to RESNA Quizzes, 1700 N. Moore St, Suite 1540, Arlington, VA 22209. FAX: (703) 524-6630.

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Other quizzes from Assistive Technology Journal articles may be found on the RESNA website (www.RESNA.org). The primary program learning objective is to keep abreast of current findings and practices in assistive technology, research and rehabilitation engineering.

Was the content of the article relevant to current AT practice? ☐ Yes       ☐ No
Was reading the article and completing the quiz a good way for you to learn? ☐ Yes       ☐ No
1. According to the article, why does propelling a wheelchair become difficult?
   A. because fatigue sets in
   B. friction develops at the wheel axle joints
   C. because of challenging methods of adaptation
   D. placement of the drivewheel is not optimal

2. What measure can effectively improve propulsion biomechanics and likely reduce the risk of injury?
   A. correctly fitting the user’s characteristics to the wheelchair
   B. providing an adjustable axle position
   C. tightening the center of mass and the wheel base
   D. restricting the camber and caster angles of the drive wheel

3. What is the relationship between the driving force and the seat height setting concerning wheelchair movement with one leg propulsion?
   A. the driving force increases when the seat height is set at low
   B. the driving force decreases when the seat height is set at low
   C. the driving force increases when the seat height is set at high
   D. the driving force decreases when the seat height is set at high

4. How was the propulsion period defined?
   A. the time that each foot was lifted from the floor
   B. the time that each foot was placed on the floor
   C. the time that the first foot was lifted from the floor
   D. the time that the second foot touched the floor

5. How was the coasting period defined?
   A. the time that each foot was placed on the floor
   B. the time that both feet were lifted from the floor
   C. the time that the first foot was lifted from the floor
   D. the time that each foot was lifted from the floor

6. Speed, stride length, and cadence are all indicators of what?
   A. ambulation
   B. movement
   C. gait
   D. kinetics
7. The propulsion force of which plane was affected by the resultant force of APGRF and VGRF?
   A. bipolar  
   B. sagittal  
   C. transverse  
   D. coronal

8. What was the name of the rank order correlation coefficient used to analyze correlations between items?
   A. Spearman  
   B. Spellman  
   C. Pepperman  
   D. Pearson

9. What caused a reduced stride length?
   A. the strong correlation between speed and cadence  
   B. the connection between gait stance and stride length  
   C. the connection between gait stance and cadence  
   D. the strong correlation between stride length and speed

10. How were speed, hip ROM-PP, VGRF, and APGRF affected by lowering the seat-height?
    A. speed and hip ROM-PP increased, while VGRF and APGRF stayed the same  
    B. they all increased  
    C. they all decreased  
    D. speed and hip ROM-PP decreased, while VGRF and APGRF increased

11. Approximately how much weight is supported by the wheelchair’s seat, back support, and arm supports, when a wheelchair is in the sitting position?
    A. about 50%  
    B. approximately 25%  
    C. roughly 33%  
    D. around 40%

12. What is a final conclusion that can be reached based on the results of this article?
    A. optimal foot propulsion can be achieved when the seat height is set either slightly too high or too low  
    B. optimal foot propulsion cannot be achieved when the seat height is set either too high or too low  
    C. optimal foot propulsion may be achieved when the seat height is set too high but not too low  
    D. optimal foot propulsion may not be achieved when the seat height is set at any level