The Camber Axis Hinge Information CD: PCE Test

- **There is *no charge* for this examination. All costs are covered by Becker Orthopedic.**
- **PCE credits: Those scoring 80% or higher will be awarded 3 PCE credits by the American Board for Certification in Orthotics and Prosthetics.**

1. Review the material on the *Camber Axis Hinge Training CD*.

2 . Fill in the *Contact Information* below so that you may be properly credited. Then, complete the answers to the PCE Test on pages 2 and 3.

You may print the test and fill it out by hand, or complete it, on screen, using Adobe Acrobat Reader and then choosing the print option. When filling out the test with Acrobat, the mouse will change to a Text Insertion Tool when placed over an answer field. Click the left button on your mouse and begin typing. You may move from field to field using the Tab key and fill in the check boxes by clicking your left mouse button. **Acrobat Reader will not allow you to save your answers or E-mail your file.**

3 . Send the completed test to Becker Orthopedic. For greatest convenience please fax the completed test to our toll free fax number, or mail your test to us at the address listed at the bottom of this page. Please be sure to include all 3 pages when sending, making sure your name appears on all pages.

Note: Those awarded PCE credits will be notified by the A.B.C. via U.S. Mail.

Contact Information

Name: _____

Company: _____

Street Address: _____

City, State, Zip: _____

Telephone: _____ *Email:* _____

Certification #: _____

Fax to: **(800) 923-2537** *(Toll-free)*

Mail to: **Becker Orthopedic**
635 Executive Drive
Troy, MI 48083-4576 USA

For questions or assistance, please call Becker Orthopedic at: **(800) 521-2192**

Name: _____

1. What lower extremity gait deficits in the sagittal plane are commonly seen at the foot/ankle and knee in the post CVA hemiplegic patient?

2. *True or False?*

Neutral positioning of the tibia from a posterior inclination in *genu recurvatum* can frequently be accomplished by increasing the dorsiflexion angle of an AFO through an adjustable ankle joint mechanism.

☐ *True* ☐ *False*

3. When a hemiplegic patient wearing an AFO exhibits uncontrolled knee flexion at initial foot contact during the stance phase of gait, what ankle joint setting can restrain this destabilizing knee motion?

4. Why is it important to utilize measured AFO ankle joint adjustments in dorsiflexion or plantarflexion for the patient that displays neurologic changes and exhibits functional gait progress over time?

5. Which of the following lower extremity joint positions is *not* present in the typical pattern of "crouch gait" found in the patient with cerebral palsy?

A. Hip flexion
B. Knee hyperextension
C. Foot / ankle dorsiflexion
D. None of the above

Type letter of answer(s) here: _____

6. *True or False?*

The plantarflexion-knee extension couple found in normal gait can be applied through an AFO as a first class lever system.

☐ *True* ☐ *False*

7. Why is it important to determine the most functional degree of foot and ankle plantarflexion in a ground reaction AFO when assisting knee extension for spastic diplegic "crouch gait"?

Name: _____

8. What braced condition during preliminary motion analysis testing presented the most effective results in stabilizing “crouch gait” through video documentation and kinematic data?

9. **(a)** Through video clip review, what braced condition presented the least effective gait results during motion analysis testing of the spastic diplegic subject with “crouch gait”? **(b)** Identify the gait anomaly that was inadvertently introduced through this inaccurate ankle joint setting.

10. Why is co-axial orthotic ankle joint alignment with the underlying talocrural joint axis a desirable goal in orthotic fabrication?

11. How can the elimination of the posterior stop mechanism increase independent skill levels for the patient wearing an AFO?

12. List the 4 different AFOs tested in a biomechanics laboratory to determine the mechanical characteristics of each design.

13. Which AFO design, during biomechanical testing, exhibited increased stiffness with resistance to increased dorsiflexion moments?

14. Relative to the locked hinge and solid ankle designs in laboratory testing, what other AFO provided the least resistance to dorsiflexion moments?

15. When the kinematics of each AFO were characterized during biomechanical testing, which design followed the screw axis (talocrural joint axis) most closely?