

## Action Statement 2: ANKLE-FOOT ORTHOSIS (AFO) OR FUNCTIONAL ELECTRICAL STIMULATION (FES) TO IMPROVE GAIT SPEED

<b>Action Statement</b>	Clinicians <b>SHOULD</b> provide an AFO or FES for individuals with decreased lower extremity motor control due to acute or chronic post-stroke hemiplegia who have goals to improve GAIT SPEED <ul style="list-style-type: none"> <li>Evidence quality: I</li> <li>Recommendation strength: strong</li> </ul>		
<b>Outcome Measures</b>	<ul style="list-style-type: none"> <li><a href="#">10 Meter Walk Test</a></li> </ul>		
<b>Evidence Summary</b>	<b>CLINICAL EFFECTS</b>	<b>AFO</b>	<b>FES</b>
<b>Acute AFO/FES</b> (Level I= strongest level)	<b>Immediate Effect</b>	Levels III	No evidence
	<b>Therapeutic Effect</b>	Levels II	Level I
	<b>Training Effect</b>	Level II	No evidence
	<b>Combined Effect</b>	Levels I	Level I
<b>Evidence Summary</b>		<b>AFO</b>	<b>FES</b>
<b>Chronic AFO/FES</b>	<b>Immediate Effect</b>	Levels I	Levels I
	<b>Therapeutic Effect</b>	Levels I	Levels I
	<b>Training Effect</b>	Levels I	Levels I
	<b>Combined Effect</b>	Levels I	Levels I
<b>AFO compared to FES</b>	Acute: AFO = FES		Chronic: AFO = FES
<b>Key Dose Considerations</b>	<b>Acute:</b> Improvement in gait speed: <ul style="list-style-type: none"> <li>AFO initiated within 5 days of inpatient admission and worn for an average of 40 mins/day, 5 days, for at least 4 weeks had better outcomes</li> <li>Participants who wore an AFO in therapy or when home on the weekends had better outcomes</li> </ul> <b>Chronic:</b> Improvement in gait speed: <ul style="list-style-type: none"> <li>Improvements are reported after 6 weeks with continued clinically meaningful changes up to 6 months with daily wear</li> </ul>		
<b>Clinical Application/ Interpretations</b>	<ul style="list-style-type: none"> <li>Early provision of AFO or FES may improve gait speed and allow the individual to participate in interventions at a higher intensity</li> <li>Temporary prefabricated AFO may be appropriate for initial use</li> <li>Custom AFO designed to meet the needs of the individual had best outcomes</li> <li>The strongest predictors of responders to FES were younger age, faster baseline gait speed, faster Timed Up and Go scores, and better balance</li> <li>AFO or FES see the most meaningful improvements in gait speed when skilled PT intervention/gait training is included early after device provision</li> </ul>		

