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# Ekso Rounds

Ekso Clinical Progressions

This is the first in a series of Ekso Rounds focused on ideas for progressing your patients in their Ekso gait training sessions. All of these suggestions are ways to get the patient to maximize their contribution to the stepping pattern, and decrease the assistance that Ekso provides. As with any PT intervention, as the challenge to the patient is increased, there may be a need to increase the assistance from the therapist to maintain safety. Please refer to the chart on page 74 in your training guide for full details. This list is not all inclusive. Appropriate progression using Ekso is based off of the Ekso- trained therapist's clinical judgement

**The Early Ambulator:**

- A **narrow BOS** is helpful to reduce the demand on the patient by reducing the lateral weight shift work load. The closer together the feet are, to match a more natural gait pattern, the less work the patient has to do to get stable on the stance leg.
    - The BOS is adjusted by narrowing the **hip abduction** setting, after hip width has been set correctly. Recall that normal stride width is approximately 3 inches
- **Like what you see.** In First Step, the PT assists the patient to achieve quality walking
    - Use this time to teach and facilitate an appropriate weight shift and stability over stance leg
- **Like what you hear.** Decrease the targets by 1 until they are consistently achieved when the patient is stable over their stance leg, and in a safe place to initiate swing. Decrease the targets until you find a value that is too early, and then return to the last successful one. The goal is to make the weight shift as efficient as possible , which in turn may increase the step count and the amount of massed practice
    - **In ProStep Plus:** The lateral target should be just hard enough so that the patient does not fall into his swing leg. **Often the lateral target is set to negative numbers.** This creates a smaller excursion for weight shift.
    - **In ProStep:** The target sounds (forward and lateral) should be achieved in close proximity to each other
- **Moved from adaptive to fixed assistance-** A Fixed Forward Assistance can be used for constant stepping (if set above min value), or it can be used to challenge patient (if set at/near/below Min Value). Note that as this is a more challenging setting, some patients may not be able to stay in fixed for the entire session. Some patients benefit from interval training between fixed and adaptive.
- **Chase their success-** As the patient's performance improves and they require less assistance, continue to lower the fixed assistance value to meet them
- **Provide time for motor planning-** When using a fixed assistance value, a way to build in more time for the patient to motor plan the assigned step pattern is to increase the Swing Complete time. Using Medium or Slow allows an extra 40% or 200% of the swing time for the patient to engage and learn the pattern, before Ekso completes the step for safety. **Remember to keep the patient balanced on their stance leg while they are working on the swing leg!**

**At the end of the session, save some time to integrate all of the skills learned with Ekso, into over ground ambulation outside of the device. This is a key step in having the patient learn a new movement pattern.**

Have clinical questions? Please reply to EksoRounds@eksobionics.com to communicate with an Ekso Bionics clinical team member.