

❖ Sit to Stand with Maximum Assistance

The following guidelines help determine if your patient will need maximum assistance to stand up.

- How alert is the patient?
- Is there any active trunk control?
- Is the patient fearful?
- Are there any conditions that make leaning forward difficult?
- Do they have trouble extending their trunk or bearing weight on lower extremity?

The following guidelines may need to be modified if your patient has already developed tightness or contractures or if medical conditions interfere.

Starting Position

The patient is sitting in a wheelchair, in a regular chair, on a bed, or on a mat table.

Handling

1. Stand on the weak side, next to and facing the patient.
2. Position the patient's feet flat on the floor, parallel and about shoulder width apart.
3. Scoot the patient forward in the chair, if necessary, in order for the feet to reach the floor or for the distal 1/3 of the femur to be unsupported.
4. Position the feet behind the knees, remembering that the taller the patient, the further back the feet need to be positioned.
5. Ask the patient to place their hands either on their thigh or, for patients with neglect, ask the patient to clasp their hands together if possible.
6. Using three points of control, you will be able to bring a maximum assist patient from sit to stand. **Do not lift.** Instead, shift their weight from their hips to their feet by doing the following steps.
7. Position your leg so it will be in front of the patient's knee. This will be your first point of control in helping with knee extension.
8. Place your open hand on their sternum, being careful not to slide up their neck. Gently bring the patient into trunk flexion, maintaining support through the sternum. This will be your second point of control.
9. Place your other hand around the patient under their strong hip. This will cue them to come forward, and you'll also be able to tell when the patient leaves the chair without needing to look back. This is your third point of control.



10. Now cue the patient (from the sternum, the knee, and under the opposite hip) to **rock forward** and shift their weight from their hips to their feet. You can do this by shifting your weight from your back foot to your front foot (the one that is controlling the weak knee).
11. It is very important not to lift. As the patient's hips clear the chair, bring the patient into full standing, using your three points of control. Press the sternum, hips, and knees gently but firmly, and the patient will come into extension.



⌘20 Pause and Practice with a Partner

Tips & Variations

- As you bring the patient forward, watch the strong leg. The patient often brings it back behind the knee (further than it was originally placed) to the “correct” position. If this happens, stop and reposition the involved foot, parallel with the strong foot.
- Fear is one of the most common problems for our stroke patients. For fearful patients, modify the environment by placing them next to or behind a solid surface (such as a heavy table).

Common Problems

When the patient has difficulty standing up, the problem is often foot placement. Check the position of both feet. Remember, the taller the patient, the further the feet are behind the knees. As you bring the patient forward, watch their non-involved foot. If your patient changes their position and brings their foot further back, then that's a cue to “correct” and reposition the involved foot as well.

When the patient has difficulty leaning forward, first determine why they are having trouble. Some patients need preparation to come forward before standing up. While in sitting, have your patient lean forward and reach toward their shoes. Are there any orthopedic or neurological conditions that make leaning forward difficult? If so, some adaptive equipment may be necessary.

When the patient's feet are staggered, with the weaker foot in front, there are three common reasons why stroke patients do this:

1. Limited ankle dorsiflexion due to **shortening of the Achilles tendon**.
2. If the patient wears a **lower extremity orthopedic device**, which limits ankle dorsiflexion, it won't allow for proper foot placement. An AFO fixed at 90° is rigid and makes ankle dorsiflexion impossible. An AFO with a “joint” that allows dorsiflexion is best, as we see here. If that isn't possible, unstrap the top of the AFO and allow the knee to come forward during sit to stand. Re-strap the Velcro once the patient is in standing.
3. The third reason that a patient may stagger their feet is to put weight on their strong side and **avoid shifting weight onto their weak side**. Fear, weakness, and sensory loss can all contribute to this problem. Initially it can be frightening for patients to stand up. Standing up in front of a strong, stable support can be very reassuring to the patient.

