

❖ Sit to Stand: Normal Movement

Analyzing Normal Movement

Before we begin, remember that all therapeutic methods are based upon normal patterns of movement. To fully understand the therapeutic value of each technique, we will observe and analyze the normal components necessary to come from sit to stand and from standing to sitting. The better you are at observation and the analysis of your observations (of both normal and abnormal movement), the better you will be at identifying and treating your patient's key problem areas. Rather than say "normal," perhaps it is better to say "typical movement patterns" or "common patterns of movement," since there is a great variety of normal movement components in the general population. A variation on "normal" does not necessarily mean "abnormal". In the following section, the underlying factors that can influence normal movement patterns are discussed.

The normal components of movement for a person to come from a sitting position to a standing position are as follows:

1. The feet are placed parallel on the floor, usually about shoulder width apart.
2. The feet are positioned behind the knees, the taller the person, the further the feet are placed behind the knees. The height of the chair is another factor which influences exact foot placement.
3. You will need to scoot forward on the chair if your feet don't touch the floor or if your femur are entirely supported, up to the knee. Notice that the majority of people don't scoot to the edge of the chair to stand.
4. The person leans forward, far enough to shift their base of support from their hips to their feet (until their hips clear the chair), and no further.
5. The femur comes slightly forward.
6. Once the hips clear the chair, the knees, hips, and trunk extend until the person is in full standing.



Notes

⌘18 Pause and Practice

Self Experience

It might be interesting for you to pause and observe your own personal patterns of movement as well as those of others. There are several factors which influence our movement, whether we've had a stroke or not:

- height and build
- joint flexibility
- strength
- previous injuries or orthopedic limitations
- environmental factors such as the height of the surface

Notice

- your own foot placement, what feels "normal" or comfortable
- how far forward you lean in order for your hips clear the chair

Try

- placing your feet an inch or two forward from your "normal" foot placement. What do you notice?
- standing up without leaning forward. What do you notice?

Observe and Analyze Others

Variations and additional considerations.

- A small percentage of the population will have their feet slightly staggered, one foot in front of the other, as they prepare to stand.
- How far the feet are positioned behind the knees and how far the person leans forward will depend upon the height of the surface (the lower the chair, the further forward they'll need to lean to shift the base of support from hips to feet) and the size and build of the person.
- Older people will often "push off" the armrests of the chair when they have difficulty leaning forward.

