

## CLINICAL PERSPECTIVE

### Functional sit to stand is required to successfully engage in transfers, mobility, and ADLs

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Depending on the diagnosis and physiological systems coupled with comorbidities involved, patients may present with a multitude of impairments such as decreased muscle strength, sensation/proprioception, visual perceptual problems, neuromotor changes that lead to limitations in their ability to engage in even the most basic aspects of sit to stand. These impairments can lead to fear of movement, increased anxiety, and limited trust in the therapist, making it difficult for patients to learn the components of sit to stand.

The more significant the impairment, the more challenging it is for the therapist to isolate the components of sit to stand. As a result, the patient may not learn the components, such as concentric and eccentric control, allowing for compensatory techniques to develop.

The inability to incorporate the proper components of sit to stand can lead to inadequate technique, resulting in potential therapist and patient injury.

### Progressive Steps from a Seated Position

*Communicating and making the patient aware of:*

- Proper feet positioning - the wider the feet, the harder it is to stand
- Awareness of anterior pelvic tilt, lumbar and thoracic extension
- Importance of hip flexion, knee flexion, and dorsiflexion of the ankle
- The role of lumbar and thoracic extension and scapular depression

It is imperative when training a patient for sit-to-stand that the therapist has an understanding of the normal kinematic movement pattern and bridges the patient's deficits with the advantages of training. A device designed with the proper biomechanics that aids the therapist is a real benefit. The Biodex Sit2Stand™ Trainer is such a device and therefore a valuable "tool" to help patients reach their functional short- and long-term goals.