

Physical Therapy


## Sit Stand $^{\text {m" }}$

 Squat-Assist TrainerStrengthen the sit-to-stand motion
Reinforces seated to standing movement in rehabilitation and wellness settings.

## NEW Sit2Stand"' Squat-Assist Trainer

## FEATURES:

- Assistance Selector - An exclusive Biodex design that provides graded concentric and eccentric exercise throughout the sit-to-stand motion. The system also provides the option to perform gentle, progressive plyometrics for developing fast-twitch
 fibers which are so important for older adults.
- One-Touch Assist Control - The one-touch assist control features small incremental assistance adjustments, as low as 5 pounds, that deliver measurable progress.
- Contoured Seat with Supporting Backrest - The large, comfortable seat articulates naturally to correspond with pelvic tilt during the sit-tostand motion.
- Wheelchair Accessible - The specially designed platform safely accommodates patient transfers.
- Arm Supports - Contribute to upper extremity strengthening and can be moved out of the way for easy on/off access.
- Adjustable Seat Height - Seat height is fully adjustable to suit varying patient leg length and height, hip movement and orthopedic conditions.
- Indexed Foot Base - A foot placement grid provides clear reference for therapists to easily communicate and continually repeat correct foot positioning.
- Rectractable Stabilization Belt - The fully adjustable belt provides a secure environment for patients with limited torso control.
- Range-of-Motion Limiter - Allows for two starting positions to accommodate users with limited range of motion.


## Sit to Stand ...the most fundamental motion for functional independence.

- Increase range of motion
- Encourage neuromuscular coordination
- Provide an opportunity for a gentler and safer plyometric activity
- Reinforce proper biomechanics
- Reduce injury potential for therapists and caregivers

One of the most fundamental motions required to maintain/sustain a greater quality of life is the ability to stand from a seated position. Performed many times throughout the day, this biomechanically demanding movement requires more lower extremity joint torque and range of motion than walking or stair climbing. ${ }^{1}$

Whether therapist assisted or used independently, the Sit 2 Stand ${ }^{\text {TM }}$ Trainer guides users through the seated to standing motions. Repeating the motions builds both lower- and upper-body muscular strength and endurance, and improves flexibility; therefore, the user maintains/gains
 independence.

Biodex Sit2Stand Provides Accommodating Assistance


The assistance profile of the Biodex Sit2Stand Trainer corresponds with the sit-to-stand force output providing more assistance where one is weaker, and less assistance where one is stronger.

## Preserving the ability to rise from a seated position is critical for maintaining independence

## Wellness with a purpose...

- Parkinson's disease - Patients with low force production and hypokinesia can use the Sit2Stand Trainer to improve force in a functional task, advance dopamine release and enhance expectancies.
- Cardiac Rehabilitation - Ideal for prehabilitation or post recovery, use of the Sit2Stand Trainer improves lower extremity strength, endurance and flexibility. Strength gain in the leg means less reliance on upper extremities to push out of a chair. Increasing lower extremity strength improves ambulation and can help reduce falls.
- Regular physical activity - is one of the most important habits older adults can practice for their health. According to the 2008 Physical Activity Guidelines for Americans, older adults need to perform
 two types of physical activity each week to improve health - aerobic and muscle strengthening.


## Physical Rehabilitation

## Help patients maintain their functional independence

With attention to detail in the biomechanics of the sit-to-stand motion and the therapy process, the Biodex Sit2Stand Trainer is designed to allow the therapist full access to the patient to train and reinforce strategies for the sit-to-stand motion while providing the patient a safe environment.
By varying seat height and foot position, the patient will learn the effects of body position and joint angle to control center of mass and the role of momentum in rising. ${ }^{2}$ The large, comfortable contoured seat with pivoting backrest articulates naturally to correspond with pelvic tilt during sit-to-stand motion.
 Adjustable start and end seat position accommodates varying amounts of hip flexion and orthopedic conditions.

## References:

1. Lomaglio MJ, Eng Janice, (2005). Muscle strength and weight-bearing symmetry relate to sit-to-stand performance in individuals with stroke. Gait \& Posture 22126-131.
2 Janssen WGM, et al, (2002). Determinants of the Sit-to-Stand Movement: A Review. Phys Ther:;82:866-879

## Who will benefit from the Biodex Sit2Stand ${ }^{\text {TM }}$ Trainer

Ideal for strengthening the lower extremities of weakened, older, or sedentary patients/residents, or for cardiac rehabilitation, where standing from a seated position without reliance on the upper extremities is critical.

- Independent Living Facilities
- Assisted Living Facilities
- Skilled Nursing Facilities
- Wellness Centers
- Inpatient and Outpatient Rehabilitation Centers


## CLINICAL PERSPECTIVE <br> David Wilcox, OTR/L

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

To read full perspective, visit www.biodex.com/sit2stand.


## SPECIFICATIONS:

- Dimensions: $31.75^{\prime \prime} \mathrm{w} \times 51^{\prime \prime}$ deep $\times 52$ " $\mathrm{h}(83 \times 125 \times 132 \mathrm{~cm})$
- Seat Height:

Adjustable: Seven preset increments accommodate patients of various heights.
Seated Height: 18.5"

- User Capacity: $350 \mathrm{lb}(159 \mathrm{~kg})$
- Weight: $147 \mathrm{lb}(66 \mathrm{~kg})$
- Assistance Range: 45 lb to 250 lb
- Warranty: one year parts and labor

950-560 Sit2Stand ${ }^{\text {TM }}$ Trainer Includes Stabilization Belt

www.biodex.com/sit2stand

## Biodex

Biodex Medical Systems, Inc

