Partial Body-Weight Support
Reduce patient body weight with single-point suspension for proper gait mechanics.

www.biodex.com/nxstep
Restore functional mobility

The Biodex NxStep™ Unweighing System enables partial weight-bearing therapy with open access to the patient. Offloading a percentage of body weight offers the opportunity for early rehabilitation while providing a safe environment for patient and therapist. Therapists can focus on treating their patients, manually facilitating lower extremities.

The dynamic, single-point suspension of NxStep accommodates pelvic rotation and vertical displacement. This encouragement of proper mechanics allows functional gait patterns to be practiced. When used in combination with the Biodex Gait Trainer, a comprehensive gait training environment complete with audio and visual biofeedback, is possible.

Gait Kinematics

NxStep™ Unweighing System allows full and partial weight bearing without compromising proper gait kinematics. Depending on walking speed, up to four inches of vertical displacement is permitted while the system maintains a consistent level of unweighing. When pelvic stabilization is necessary, retention cords are provided that can be adjusted for degree of pelvic rotation.

The ability to allow pelvic rotation has its own advantages. Unlike two-point suspension systems that have a tendency to restrict rotation on a horizontal plane, the single-point method of NxStep permits functional pelvic rotation and versatility when walking, side-stepping, retro-walking and turning. Patients can engage in reactive postural control exercises or change direction without repositioning the entire support system.

The unique, forward corner-mounted design of NxStep enables many advantages. Therapists can view patients from all angles; patients have full visibility of treadmill display and, the open design allows natural arm swing, an essential component to reinforce neuroplasticity.

“"A New Partial Body-Weight Support System that provides an open, accessible rehabilitation environment with automated harness compensation.""
NEW STANDARD UNWEIGHING HARNESS

The question isn’t whether to offload a patient’s weight, but how. What factors to consider should be textbook, allowing the biomechanics of gait without impeding movement.

The Biodex Unweighing Harness is designed to provide vertical lift through three shared points of pressure: through the hip straps, gluteal fold straps and the lumbar-thoracic harness. Its secure fit with maximum support offers comfort without limiting lower extremity range of motion. Assuring that the patient is comfortable is essential when lengthy exercise sessions are required.

The NxStep Unweighing System allows the necessary movements to replicate natural ambulation – uniquely offered with Biodex design.

The unique Auto Load feature compensates for potential harness slippage, maintaining unloaded amount and position throughout the exercise.

Take it a step further and partner the NxStep Unweighing System with the Biodex Gait Trainer. This combination provides the safety to treat people with movement disorders, and the biofeedback technology with objective reporting to prove need, progress and outcome.

Applications:

- Stroke
- Spinal Cord
- Head Injury
- Amputees
- Orthopedic
- Neurologic
- Vestibular
- Older Adult

Specifications:

- Dimensions:
  - Operational: I.D.: 38.8” w x 48” depth x 94” h (99 x 122 x 239 cm)
  - O.D.: 47.5” w x 48” depth x 94” h (121 x 122 x 239 cm)
  - Retracted (not for operation): O.D.: 32” w x 48” depth x 79” h (81 x 122 x 201 cm)
  - Battery adds 4” (10.2 cm) to depth.
  - Accommodates patients from pediatric up to 6’ 7” (201 cm) on a standard treadmill in an area with 8’ (244 cm) ceilings
- Includes one therapist seat
- Accommodates treadmill up to 38” w x 13.5” h (97 x 34 cm)
- Vertical Adjustment: 50” (127 cm)
- Unloading Weight Capacity: 160 lb (73 kg)
- User Capacity: 400 lb (181 kg)
- Power: 115 VAC
- Battery: Rechargeable 24V. Battery automatically charges when system is plugged in.
- Weight: 275 lb (125 kg)
- Shipping Weight: 415 lb (189 kg)
- Compliance: IEC 60601-1 and ISO 10535 for safety; EMC to 60601-1-2.
- CE conformity to IEC 60601-1
- Warranty: Two years parts; one year labor

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NxStep Unweighing System with Gait Trainer.

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NxStep Unweighing System shown with Standard Unweighing Harness and two Therapist Seats.

NxStep Unweighing System shown with Gait Trainer.

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 NxStep allows functional gait patterns to be practiced.

Pelvic rotation is a critical component of functional gait mechanics. As patients progress in therapy, the Biodex single-point suspension system allows functional pelvic rotation to occur.

Vertical displacement is also a critical component of functional gait mechanics. The Biodex dynamic suspension system allows up to 4” of vertical displacement, which enables the patient to respond to ground reaction forces.
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