

IN THIS ISSUE: SIT-TO-STAND CHAIR; THE STORY OF TWO MATTS; JOB OPPORTUNITY IN SAN DIEGO; TO BEND OR NOT TO BEND-REVISITED

**WHY SIT WHEN YOU CAN STAND?
INDEPENDENT SIT-TO-STAND**

A Key Skill in the Prevention of Physical Frailty

As I have said before, every now and then a product comes along that has real clinical value related to the research, is affordable and makes a definite difference in rehabilitation. One of those products is the

SIT-TO-STAND CHAIR



manufactured by Endorphin.

**CONTACT ENDORPHIN
FOR
MORE INFORMATION**

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WALK TALL! The Message July-September, 2008

Research has shown that Physical Frailty is a separate and distinct syndrome from aging and other diagnoses and one of its pre-defining features is weakness of the musculoskeletal system and, in particular, loss of leg strength.¹⁻⁴ In fact, according to Judge,³ loss of leg strength is the strongest single predictor for subsequent institutionalization. Also, "lower extremity function is highly predictive of subsequent disability in non-disabled community older persons."⁵

According to Cummings⁶ "the inability to rise from a chair without using one's arms is associated with an increased risk of falls and a twofold increase in hip fracture risk."

The Sit-To-Stand Chair would make an affordable and highly useable addition to any physical therapy setting. The seat is height-adjustable and, in addition, the amount of assistance, based on the user's body weight, is also adjustable. Because the unit is so adjustable, the therapist can record progress as the patient moves towards independent Sit-To-Stand function. Goals can be set accordingly. Thus, the use of this device enables the therapist to document progress for 3rd party payers and keep the patient on treatment as necessary.

With increasing need and declining re-imburement, this device seems to be an idea whose time has come. With its use for patients with total knee, total hip, other lower extremity weakness and surgery, if it were to return to clinical practice, it would definitely be on my purchase list as a "must-have" item.

1. Fried LP et al. 2005

2. Campbell AJ and Buchner DM 1997

3. Judge JO. 1996

4. Bortz Wm^{2nd} 2002

5. Guralnik J et al. 1995

6. Cummings et al 1995

BENEFITS

The following are the benefits that the STS provides your facility, therapist and patients:

FACILITY

Small compact footprint

OSHA/Workman's Comp – Therapist is not required to lift and lower patient to perform exercise thus preventing back injuries.

Accommodates patients up to 400 lbs

Saves money and space - single unit combines both upper and lower body exercises

Provides a competitive advantage - a more effective solution for a patient's hip and knee therapy

Patient safety - machine support prevents either the patient or the therapist from losing balance

[Bariatric adaptable without additional cost](#)

THERAPIST

Is not required to lift and lower patient to perform exercise thus preventing back injuries

Provides patient stabilization and balance during the exercise

Patient progress can be tracked and documented

Incrementally adjust the support of the patient

Requires less effort to maintain greater control of patient stability

Patient goals can be established in conjunction with patient progress

Increases the eccentric loading of the muscles by controlling the speed of the exercise

Established payment reimbursement codes

PATIENT

Is in control during exercise and therefore more confident

Feels the sense of achievement by reaching tangible and measurable goals

Requires less support to perform the exercise

Contact Sara Meeks via email sara@sarameekspt.com for a PDF entitled [Research Report](#)

Determinants of the Sit-to-Stand Movement: A Review

Wim GM Janssen, Hans BJ Bussmann, and Henk J Stam

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SIT TO STAND CHAIR

INTRODUCING THE TOTAL THERAPY SOLUTION

Endorphin Corporation has provided quality fitness and rehabilitation equipment for 20 years. Our mission is to lead our industry with unparalleled products, warranties and customer service. Our new Expandable Modular Technology product line delivers a fresh new look built on our foundation of quality service and value. Continuing with this promise to our customers, we are proud to introduce a revolutionary new product for hip, knee and leg therapy.

THE 330 STS SIT – TO – STAND EXERCISER

As the only product designed to effortlessly duplicate a patient's sit and stand motion, the Endorphin STS is a breakthrough product in the rehabilitation industry.. This unique machine has been developed to strengthen muscles, increase bone density, improve range of motion, and provide greater stability for sitting, standing and transfers. Using an assisted height adjustable seat, the patient is able to perform a sitting and standing motion exercise. The unit is adjustable to provide a percentage of assistance based on the user's body weight. This eliminates the need for lifting and lowering a patient manually, preventing back injuries to the therapist. The therapist maintains control of the patient's stability level and is able to incrementally adjust the support of the patient. Patients experience a feeling of control, a sense of achievement and a higher level of confidence.

The Endorphin STS is a valuable rehabilitation tool for clinics, hospitals and assisted living facilities. Its compact size, coupled with its many benefits, make it a valuable addition to your therapeutic treatments.

The STS exercise machine is designed as part of the total solution, for hip, knee and leg physical therapy. The unit provides strength, conditioning, and stabilization for patient therapy while increasing bone density.

STS - SIT

The design of the STS allows the patient to gradually regain lower body muscle strength after hip or knee surgery. The therapist is still in control of the exercise without creating strain on their lower back! This exercise previously required the therapist to lift and lower the patient from a seated to a standing position. The STS not only provides a new tool for building muscle strength and endurance, it also improves the balance and confidence level of the patient.

STS - STAND

The STS gives the therapist the opportunity to record the progress of the patient and set attainable goals for each patient to reach. With the ability to adjust the assist load in five lb increments up to 180 lbs; start, stop and speed, this machine has the adaptability to fit many rehabilitation requirements. Intensity levels may be modified to allow for the rehabilitation of sports injuries, as well as for hip and knee surgeries.

STS - TRANSFER

This multi-purpose rehabilitation tool not only works for lower extremity injuries, but is also a valuable transfer-strengthening device. The adjustable, assisted load gives the patient the opportunity to strengthen their arm and shoulder muscles. From the seated position, body weight is supported while the patient holds the adjustable support handles on either side of the seat. This exercise is performed in an assisted and controlled manner by removing the load supported by the feet, then bending and extending the arm at the elbow.

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Matts²

Two Matts are out to change how physical rehabilitation is experienced by both providers and clients. Matthew Taylor, PT, PhD (www.drofyoga.com) and Matthew Sanford, MA (www.matthewsanford.com) have teamed up to conduct first-of-its-kind research in Minneapolis. Taylor, an expert in integrative mind-body rehab and Sanford, an advanced yoga teacher and

T-4 paraplegic believe the human body is capable of improving quality of life through deepening our internal awareness and sensing the subtle information available beyond ordinary spinal pathways. Call it ground reaction forces, prana, chi, or whatever, they have the staff at the Courage Center (11,000 patient visits/yr) excited.

A key aspect that has everyone talking is that the skeleton seems to carry a level of awareness accessible to people with complete neurological deficits like Sanford, but probably even more profoundly, is available for “healthy” normals as well. As the two say, Sanford had an abrupt mind-body lesion at age 13....the rest of us are just on a slow-drip disconnect as we sit too much, breathe shallowly and guess what?.....collapse....that is, lose our vertical dimension. Not news to my readers, but an exciting new way to look at bone health and health in general. Sanford's award winning book “Waking” is a must read for rehab professionals. Taylor is available to provide continuing education modules for facilities and host sponsors.

Their joint message to providers and clients is: “Slow down, listen and make an informed intention to act with skill based upon what you learn from the information flowing in your body.” ...and not too surprisingly, if, as the provider, you aren't “home in your bones”then neither will your client be!



Matt Sanford
Upward-Facing Boat Pose

ATTENTION! JOB OPPORTUNITY IN SAN DIEGO SUCCESS IN SAN DIEGO

For the past 5 years, I have focused all of my clinical and professional work on The Meeks Method. This has resulted in a positive response from clients and the community. Following, are a few ways I am working to spread the word on bone health and The Meeks Method. I teach 2 community classes weekly and present monthly seminars to both health care professionals and the community. I also work with the University of St. Augustine as a guest presenter to teach, “Therapeutic Exercise for Osteoporosis.” The most recent project is now collaborating with the San Diego Arthritis Foundation, San Diego Continuing Education, and Aging and Independent Services to start a pilot Osteoporosis program. At my clinic, we have a 3 week waiting list to accommodate the Osteoporosis clients.

As a result of this success, I am actively seeking assistance with treating clients and in developing these programs throughout the San Diego area.

Please contact Marcia Tassinari, (858) 220-3213 or tassinpb@sbcglobal.net if you might be interested in re-locating to San Diego and joining this rapidly expanding and exciting practice.

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SARA SPEAKS: TO BEND OR NOT TO BEND—REVISITED

As I travel and teach seminars on the physical therapy management of osteoporosis, I meet many therapists and other health professionals who are unaware of movement precautions in persons with, or at risk for, osteoporosis. To that end, I offer two more references I have recently read indicating that movements such as spinal flexion, side bending, and rotation should either be avoided or performed with caution and, preferably, under the guidance of a skilled therapist or teacher.

Briggs et al have published a wonderful paper called **A Review of Anatomical and Mechanical Factors Affecting Vertebral Body Integrity**. In this exhaustive treatise on the vertebral body, he presents a very well-referenced systems approach to the understanding of the multifactorial aetiology of vertebral fracture. Included is information on bone structural features (trabecular micro-architecture and sub-regional bone mineral density,) macroscopic factors (vertebral geometry,) local environment (muscle force, muscle strength, neuromuscular control, disc integrity,) and global environment (body position and activity.) In the conclusion he states that therapists' treatment plans "may be refined to include specific motor retraining and strengthening interventions and modalities to **reduce vertebral loading**."

Taking the load off the vertebral body is the first principle of The Meeks Method. The idea is to first unload the bone, then strengthen support structures and then consider safe loading of the vertebral bodies. The participants in my Level 2 training discuss this article in great detail.

Marsheed Sinaki has a recently published paper **The Role of Physical Activity in Bone Health; a New Hypothesis to Reduce Risk of Vertebral Fracture** in which she explicitly states that "Habitual, repetitive lifting and flexion of the spine may cause microfractures of vertebral bodies and gradual vertebral compressions that result in gradual loss of height. Therefore, flexion of the osteoporotic spine is not recommended because it strains the vertebral bodies anteriorly. If anterior loading on the vertebral bodies is beyond a woman's biomechanical competence, wedging and vertebral compression fractures can result during daily, not-so-innocent physical activities." My clinical interpretation of this is that I do not need to observe a patient's faulty movement patterns during patient assessment thereby risking vertebral body wedging and compression fracture during this "not-so-innocent" physical activity.

If anyone is interested in copies of these two articles I can send them in PDF via email. Just send your request to sara@sarameekspt.com and I'll get them right out to you (if I am in my home office at the time—otherwise it might take a few days.)