

WORLD NEWS

FOLLOWING THE EVOLUTION OF ECCENTRIC RESISTANCE TRAINING

LETTER FROM THE EDITOR

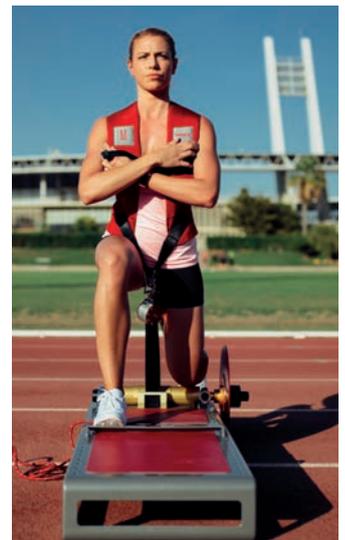
Dear reader and nHANCE follower,

We certainly value the importance of high quality physical training in sports. No one would argue - talent and hard, intelligent conditioning is the foundation for athletic success. This summer we have seen some crazy transfers in professional soccer. Money and politics talks! It appears the marketing value of a player has no limit anymore. How will the ultimate consequences impact manager and coach decisions and individual player's focus on conditioning and preparations for the game in the future! This is a double-edged sword for the team owners and management to deal with. How much does the decision makers acknowledge the importance of high-quality physical conditioning at the highest professional level? Will improved quality of training, competence of support staff, and technology parallel the increased pressure and demands? This fall Newsletter contains information on specific benefits of nHANCE products, great time limited sales promotions, and reviews NASA research showing how low back pain can be prevented with unique nHANCE training methods. ”

Adrian Witt
Editor-in-Chief

GET THREE PAY FOR TWO

Get your **three** units of the **Limited Edition** of the #215 nHANCE™ Squat Ultimate at the price of **two!** Santa is happy to accept your purchase order now and in time for Christmas Holidays! *This offer does not include the Hooper's Box or BlueBrain™.



TRANSFERRING THE BENEFITS OF ECCENTRIC TRAINING TO SWIM POWER!



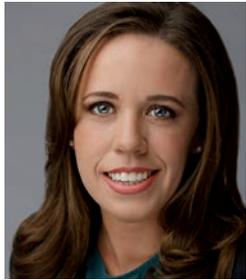
While swimming contains no significant element of eccentric actions, concentric power is key in the sprint swim! Yet, sprinters like super phenomenon, world record holder, Olympic Champion and several-time World Champion Sara Sjöström of Sweden, voted best swimmer in the world, can readily improve leg power in the take off, as well as drag power in the free style and butterfly with nHANCE™ technology, and YoYo™ training methods.



NASA ASTRONAUTS COMBAT LOWER BACK MUSCLE ATROPHY WITH OUR MULTIGYM!

Atrophy of paraspinal muscles is a serious concern following inactivity, and in persons taking on a sedentary lifestyle. Hence, serious muscle wasting occurs rapidly during bed-rest or lack of weight-bearing, not to mention

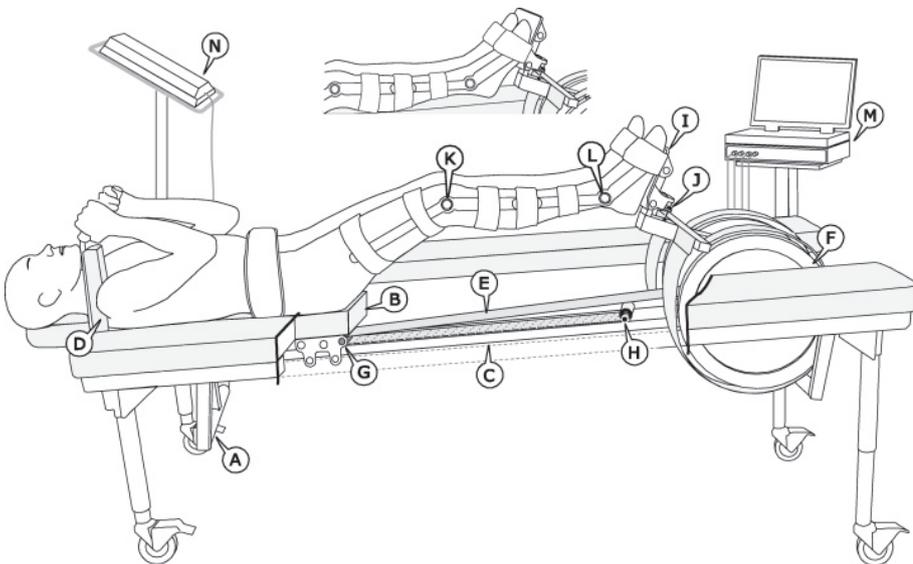
astronauts in Orbit. **Dr. Jacquelyn Holt** (pictured) of University of California, San Diego, and her research team employed the nHANCE™ #211 MultiGym* (Supine Squats and heel raises), and low intensity treadmill exercise in women who were subjected to 60 days of bed-rest. This rather severe intervention, aimed at mimicking spaceflight, produced significant and robust decreases in the cross sectional area of paraspinal (most significantly m. erector spinae) muscles



Dr. Jacquelyn Holt, University of California, San Diego

and lumbar extensor strength. Most importantly though, the nHANCE protocol (four sets of each exercise every third day) helped attenuating this response. The benefit of exercise was also evident in that back pain incidence was reduced by 80%. The author's findings expand the benefits of nHANCE resistive exercise and lower body negative pressure treadmill exercise to protect the musculoskeletal and cardiovascular systems during 60 days of simulated microgravity in women (and most likely in men as well). Therefore spaceflight exercise countermeasures that reproduce spinal loads experienced on Earth may mitigate spinal deconditioning during long-duration space travel.

*the nHANCE MultiGym modified for space purpose was installed on the International Space Station following extensive research funded by NASA and the European Space Agency.



Cartoon of the nHANCE driven by YoYo #211 MultiGym mounted on a hospital gurney, modified for men and women subjected to long-term bed-rest (Originally described by nHANCE founder Dr. Tesch and Dr. Björn Alkner in "Efficacy of a gravity-independent resistive exercise device as a countermeasure to muscle atrophy during 29-day bed rest" Acta Physiol Scand 181: 345-357, 2014).



NASA astronaut Richard M. Linnehan performing one of his many space-walks (EVA's). A four-time space shuttle veteran Linnehan presented a most appreciated key-note lecture at the 2016 3rd Global Hamstring Project on exercise in zero gravity.

THERE ARE SEVERAL nHANCE™ SOLUTIONS TO TARGET CALVES



nHANCE™ offers several solutions to execute highly effective exercises for the calves. The #211 MultiGym (see the above featured research at the UCSD) along with nHANCE Leg Press Classic allows for the semi-prone or seated controlled heel raise or calf press. The #215 Ultimate Squat offers the most challenging exercise calling for balance and full posture control. Pictured here is German, two-time Olympian Gymnast, **Jan-Peter Nikiferow**, performing calf exercise on the newly reconfigured and released **#212 YoYo Leg Press Clinical** – one of nHANCE™ several multi-function machines. This model is designed to comply with the needs of the elderly and individuals requesting an "easy to enter and exit" machine.

