A recent research study conducted in Spain shows uni-lateral YoYo™ Squat training emphasizing eccentric overload, combined with other means improve change of direction (COD) speed – a key performance feature in soccer! The investigative team employed a novel eccentric overload, including the unilateral YoYo™ Squat, and vibration training protocol, and tested the effects COD speed and other performance tests applicable to soccer. Twenty-four players were assigned to this particular program or more conventional plyometric, linear speed and weight loaded training, once weekly for 11 weeks. Interestingly, a group comparison showed very likely to likely better performance for the unilateral Squat trainees in the COD, 30- and 10-m dash speed and average power and jumping height. Based on this “proof-of-principle” study the researchers concluded that this novel exercise paradigm performed once weekly, could serve as a viable adjunct to improve performance tasks specific to soccer.

First author Julio Tous-Fajardo is currently with the Italian National Team after serving both FC Barcelona and Juventus as the strength conditioning and injury prevention coach. A career long consultant to Rafa Nadal, Dr. Tous-Fajardo was the first leading international expert in the soccer world to acknowledge YoYo™ Technology. Since then Julio have had many followers among fellow coaches around the world.

Dr. Gonzalo-Skok is currently strength training coach of the Spanish Basketball Federation.

A recent, very novel research study, sponsored by NASA, was published in the renowned Medicine and Science in Sports and Exercise this Spring. Dr. Josh Cotter (pictured) and associates, including “muscle expert giant” Ken Baldwin, at the University California, Irvine together with Dr. Per Tesch of the Karolinska Institute, Stockholm took on this study to validate brand new YoYo™ technology. A device to help NASA astronauts to perform both strength AND cardiovascular training on Missions to Mars. The paper was chosen and highlighted by the Editor-In-Chief of the MSSE journal as “pick of the month.”

The study* examined the effect of a high-intensity concurrent training program using a single patented YoYo™ device in an effort to preserve muscle function and aerobic capacity during 10 days crutch walking (ULLS; a simulation of spaceflight). The research team asked nineteen men and women to perform either 10-d ULLS with or without concurrent aerobic and resistance training. Exercise was performed on the YoYo™ MultiGym adopted for both AE and RE (Resistive and Aerobic Exercise Device; RADTM) with alternating days of interval aerobic frowing and maximal all-out resistance training including Supine Squats. Non-exercisers showed loss of strength and aerobic power. In contrast, the exercisers showed a seven percent increase in aerobic capacity and increased knee extensor and ankle plantar flexor 3RM. In the “wannabee astronauts” there was a shift toward type IIx myosin heavy-chain mRNA of the vastus muscle. This effect was reversed with exercise. Myostatin and atrogin (markers of atrophy) increased with ULLS. This change was mitigated with exercise. These unique results show both aerobic deconditioning and muscle atrophy, which occurs with space-flight, can readily be prevented with one compact piece of exercise equipment (YoYo™ RAD MultiGym). NASA is currently preparing this hardware for manned missions to planets beyond Moon.


nHANCE GOES EAST!

FC Dynamo Moscow is among several Russian teams incorporating YoYo Technology to enhance performance and prevent injury. Picture shows Sergey Alexeev of FC Dynamo’s awarding nHANCE founder Per Tesch the club jersey.

YOYO™ IN CONGRESS

May is always a busy month to keep up with the latest in the sports science including research on eccentric training using YoYo™ Technology! Below are three major cities, hosting congresses where results from YoYo™ research for health promotion, sports performance enhancement and injury prevention, were presented.

Sevilla, Spain II Congreso Internacional en Optimización del Entrenamiento Readaptación Físico y Deportiva, NSCA Spain at Universidad de Sevilla, May 14-16.


San Diego, CA The 62nd Annual American College of Sports Medicine (ACSM) Meeting and the 6th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise Fatigue, May 26-30.

CONGRATS FC BARCELONA TO THE TRIPLE

As we reported in the spring issue, 7 out of 8 clubs in the quarterfinals competing for the Champions League title were loyal nHANCE users. FC Barcelona being one of those teams brought home the title to complete the mission of going for the triple. Congratulations to FC Barcelona!