

DNS EXERCISE 1 TENNIS AND VOLLEYBALL

June 9-11, 2017

Date:
June 9-11, 2017

Registration:
8:30am - 9am
Fri & Sat:
9am - 5pm
Sun:
9am - 4pm

Location:
USC
Heritage Hall
3501 Watt Way
Los Angeles, CA
90803

Campus Contact:
Phillip Siordia
(213)713-4846

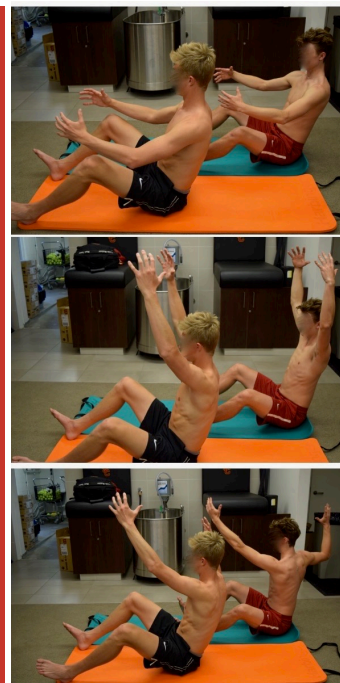


<http://rehabps.com>

Course Instructors

Petra Valouchova, MPT, PhD
Lead Instructor

Erin McGuire, PT, OCS
Assistant Instructor



Organizer:

Peter Smith

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Course Description

Etiology of musculoskeletal pain, in particular back pain, is often evaluated from an anatomical and biomechanical standpoint, and the influence of external forces (i.e. loading) acting on the spine. What is often missing is the evaluation of internal forces induced by the patient's own musculature. The stabilizing function of muscles plays a critical and decisive postural role, which in turn, is dependent on the quality of central nervous system (CNS) control. Pavel Kolar's approach to Dynamic Neuromuscular Stabilization (DNS) is a new and unique approach explaining the importance of the neurophysiological principles of the movement system. DNS encompasses principles of developmental kinesiology during the 1st year of life. These principles define ideal posture, breathing stereotypes and functional joint centration from a "neuro-developmental" paradigm. DNS presents a critical set of functional tests to analyze the quality of functional stability of the spinal and joint stabilizers, and to assist in finding the "key link" of dysfunction. The stabilization training approach is based on ontogenetic global postural-locomotor patterns. The primary goal is to optimize distribution of internal forces of the muscles acting on each segment of the spine and/or any other joint. In the DNS training concept, client education and participation are imperative to reinforce ideal coordination among all stabilizing muscles to achieve the best sport performance.

DNS Sport Course attendees are advised on how to start training the ideal postural-stabilization function in the easiest and most primitive positions. They then learn how to progress the exercises by using more challenging positions, applying resistance and/or by adding limb movement to meet client's specific requirements and sport goals. This strategy was developed by Pavel Kolar, P.T., Paed. Dr., Ph.D., and is an evolution of the work of his predecessors - Dr. Vojta, Dr. Lewit, Dr. Janda and many others.



DNS Exercise 1 Tennis and Volleyball Specific

Course Instructors

http://www.rehabps.cz/rehab/course.php?c_id=877

Petra Valouchova, MPT, PhD
Lead Instructor

Dr. Valouchová is a physiotherapist at the Rehabilitation Department, University Hospital Motol, School of Medicine, Charles University, Prague, Czech Republic. She earned her degree in physiotherapy at Palacky University in Oloumoc, Czech Republic. She subsequently earned her Ph.D. in biomechanics at the same institution.

Dr. Valouchová is an instructor of neurological manual medicine and rehabilitation at the 2nd Medical School and also the Physiotherapy School, Charles University, Prague. She also organizes courses for international groups of clinicians travel to the Czech Republic to study the "Prague School" methods.

Dr. Valouchová successfully completed the Czech Reflex Locomotion Training Course, which covers the theoretical and practical methods of the founder of Reflex Locomotion, the late Professor Vaclav Vojta. Professor Kolar studied with Professor Vojta and bases much of his work on Vojta's principles.

Dr. Valouchová has additional training in pediatric and sports rehabilitation. An elite athlete herself, she has competed in and won numerous international team step fitness competitions. Dr. Valouchová is very experienced in Professor Kolar's methods, having assisted him in his courses for the past several years. She resides in Prague with her husband and two children.



Erin McGuire, PT, OCS
Assistant Instructor

Erin graduated from California State University, Northridge in 1995 with a degree in Physical Therapy. The first seven years of her career were spent in a hospital-based physical therapy department where she was exposed to a large and diverse patient population. The background and experience she gained from working at the hospital enabled her to become a Board Certified Specialist in Orthopedic Physical Therapy in 2002.

It was during her first couple years of practice, while focusing her continuing education on manual therapy, that she was introduced to the movement system approach; including the philosophies of professors Vladimir Janda and Shirley Sahrmann. This introduction sparked her passion and since then she has focused her continuing education on utilizing these concepts to effectively assess and treat musculoskeletal dysfunction, movement impairments and muscle imbalances. In 2005, these movement system principles led her to Prague, Czech Republic, where she began her studies of Dynamic Neuromuscular Stabilization (DNS) with Professor Pavel Kolar. After four years of studying and practicing DNS, Erin became one of the first internationally certified DNS practitioners in 2009.

Having competed at the NCAA level of softball in college, as well as having a lifetime interest in sports, she wanted to focus her practice on treating the orthopedic and sport rehabilitation population. In 2000, she made the decision to open her own practice in Los Angeles.

While she utilizes an eclectic approach in her practice, it is largely influenced by the DNS philosophy and the concepts of the Prague School of Manual Medicine. She is excited to seek out more opportunities to refine her skills and increase her knowledge in DNS in order to better serve her patients and to assist other practitioners in understanding the principles of DNS and how to better utilize the approach.

Erin currently practices at her clinic, Back in Balance Physical Therapy in Los Angeles, California

Course Objectives

Along with the basic course objectives of DNS Exercise 1 Course, http://www.rehabps.com/REHABILITATION/SPORT_COURSE.html the following will be covered:

Developmental kinesiology aspects for the ideal stereotype of the volleyball and tennis and other sports performance

Basic core stabilization as a prerequisite for locomotion patterns

The role of the diaphragm during aerobic/anaerobic exercise; dual postural-respiratory diaphragmatic function and how it applies into the volleyball and tennis technique

Biomechanics of the volleyball and tennis with regard to sequence, timing, and interactions with the ground "Kinematic Sequence"

The extremities functional differentiation for the volleyball and tennis strokes, stepping forward and supporting function for the interplay between the ipsilateral and contralateral pattern during the sport technique

DNS exercise positions to train core stabilization as a prerequisite for the ideal stroke stereotype

Biomechanical and developmental kinesiology principles applied to the volleyball and tennis athletes

The most frequent types of musculoskeletal dysfunction resulting from non-optimal sport technique stereotypes and poor methodology of training

Manual treatment, mobility/strengthening, and coordination (active) exercises from the developmental perspective in order to prepare the athlete for play, educating the athlete



Professor Pavel Kolar **P.T., Paed. Dr., Ph.D.**

Author of a revolutionary diagnostic and treatment approach known as "Dynamic Neuromuscular Stabilization" (DNS) which is based on developmental kinesiology.

Professor Kolar is a physiotherapist by training who holds a doctorate in pediatrics. His instructors, Professor Karel Lewit and the late Professors Vaclav Vojta and Vladimir Janda, profoundly influenced him in his evolution of DNS. He is the Director of the Rehabilitation Department, University Hospital Motol, School of Medicine, Charles University, Prague, Czech Republic. He also acts as an adviser to the Director of the Hospital and serves as vice-dean of bachelor and master study at Second Medical Faculty, Charles University, Prague.

As Director of the Rehabilitation Department, Professor Kolar oversees the following:

1. The Rehabilitation Unit for adult patients, both outpatients and in-patients.
2. The Rehabilitation Unit for children: outpatients only.
3. The Pain Management Unit: outpatient and inpatient.
4. The Spinal Unit
5. The School of Physiotherapy

Professor Kolar is renowned for his work in rehabilitation, in addition to his utilization of DNS methods to celebrities in the world of sports, politics and entertainment. He has been appointed team clinician for the Czech Olympic teams, Soccer team, Davis Cup tennis teams and national ice hockey teams. He gained wide recognition for his treatment of former Czech President Vaclav Havel, which included traveling and serving as the President's personal clinician when he went abroad. Because of the profound influence of DNS to rehabilitation in the Czech Republic, Professor Kolar was awarded the prestigious "Presidential Award for Professional Excellence" by Czech President Vaclav Klaus in 2007. This award is typically reserved for those in their later years after many decades of significant contributions to society, while Professor Kolar's contribution of DNS earned him the coveted award while still in his early 40's!!

Professor Kolar is currently directing an extensive research project in his department concerning developmental kinesiology and its application in early diagnosis of central nervous system disorder in newborns and infants. He and his trained therapists utilize DNS techniques in the treatment of newborns and infants with cerebral palsy. Professor Kolar is also currently involved in a second research project, studying "stabilization and respiratory function of the diaphragm" and its relation to conservative treatment of back pain syndromes.

In 2009 Pavel Kolar successfully completed his Ph.D. His thesis was: "Dynamic MRI and spirometric analysis of diaphragmatic activity".

In 2009 Prof. Kolar accepted an appointment as Adjunct Senior Lecturer in the Faculty of Health Sciences, Murdoch University, Australia.

Professor Kolar has taught DNS in Europe, North America, Singapore, Australia and New Zealand.

Professor Kolar resides in Prague with his wife and three children.