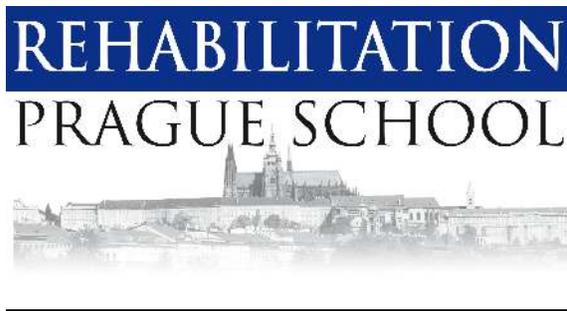


**Dynamic Neuromuscular Stabilization  
according to Kolar**

**DNS Exercise Course for Exercise Professionals: “Part I”  
12 contact hours**

**(SINGAPORE – BODYTREE ACADEMY®)**



[www.rehabps.com](http://www.rehabps.com)



***Course dates:***

**March 28 - 29, 2020**

***Instructor:***

**Robert Lardner, PT**

***Location:***

**BodyTree Group  
137 Cecil Street  
Hengda Building #12-01  
Singapore 069537**

***Organization & Registration:***

**BodyTree Academy®**

**<http://www.bodytreeacademy.com/dns/>**

**[Facebook & Instagram: @bodytreeacademy](#)**

**[info@bodytreeacademy.com](mailto:info@bodytreeacademy.com)**

***FOR MORE INFORMATION, PLEASE VISIT PRAGUE SCHOOL WEBSITE AT:  
[https://www.rehabps.cz/rehab/course.php?c\\_id=1515](https://www.rehabps.cz/rehab/course.php?c_id=1515)***

**Please, besides registering with the organizer, register online with Prague School and pay individual registration fee Euros 80 using the link above.  
Your online registration with Prague School is prerequisite to attend the course!**

## **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.

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. The DNS encompasses principles of developmental kinesiology during the 1<sup>st</sup> year of the life; these principles define ideal posture, breathing stereotypes and functional joint centration from a "neurodevelopmental" 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 how to start training of ideal postural-stabilization function in basic, i.e. the easiest positions and how to progress with the exercise by using more challenging positions, applying resistance and/or by adding limb movement to meet client's specific requirements and sport goals. For more info please visit our website [www.rehabps.com](http://www.rehabps.com)

## **COURSE SCHEDULE**

### Day 1

- 9.00 – 10.30* Developmental Kinesiology, Ontogenesis – Basic Principles & Application in Sport
- 10.30 – 11.00* Coffee break
- 11.00 – 12.30* Postural – Locomotion Function: Definition of Optimal and Abnormal Patterns
- 12.30 – 13.30* Lunch
- 13.30 – 15.00* Stabilizing System of the Spine: DNS Tests (workshop)
- 15.00 – 15.30* Coffee break
- 15.30 – 17.00* Basic Types of Stabilization Exercise Utilizing Optimal Developmental Positions and Patterns - Demonstration

### Day 2

- 8.00 – 10.30* Active Exercise Prescription Based on Developmental Positions (workshop)
- 10.30 – 11.00* Coffee break
- 11.00 – 12.30* Active Exercise Prescription Based on Developmental Positions – modification for strengthening exercise (workshop)
- 12.30 – 13.30* Lunch
- 13.30– 15.00* Active Exercise Based on Developmental Positions: modifications to train basic sport movements: throwing, jumping, kicking, shooting, stroking (workshop)
- 15.00 – 15.30* Coffee break
- 15.30 – 16.00* Workshop cont, FAQ, Discussion

## COURSE OBJECTIVES

- Demonstrate an understanding of the basic principles of developmental kinesiology.
- Describe the relationship between development during the first year of life and dysfunction of the locomotor system in adulthood.
- Discuss and demonstrate the basis of human movement: support, stepping forward, the biomechanics of motor function, the verticalization process & functional joint centration in postural development.
- Evaluate and correct poor respiratory patterns.
- Assess the integrated stabilizing system of the spine both visually and utilizing dynamic functional tests.
- Integrate corrective exercises based on the DNS functional tests and developmental positions in supine, prone, low kneeling, oblique sit, and quadruped global movements.
- Demonstrate how DNS corrective exercises can be integrated with other exercise strategies.

## PRAGUE SCHOOL CERTIFICATE OF ATTENDANCE

A Certificate will be awarded by the Prague School:



## **AUTHOR OF THE DNS CONCEPT**

**Prof. Pavel Kolář, PaedDr., Ph.D.**



Professor Kolar is a physiotherapist by training. His instructors, Professor Karel Lewit and the late Professors Vaclav Vojte and Vladimir Janda, profoundly influenced him in his approach.

He is the Director of the Rehabilitation Department, University Hospital Motol, School of Medicine, Charles University, Prague, Czech Republic. Prof. Kolar acts as a Vice-Dean for Bachelor and Master level study at 2<sup>nd</sup> Medical faculty, Charles University in Prague and also as an adviser to the Director of the Hospital.

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: outpatient and inpatient.
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 treatment of celebrities in the world of sports, politics and entertainment. He has been appointed team clinician for the Czech Olympic teams, Davis Cup tennis teams and national ice hockey and soccer teams. He gained wide recognition for his treatment of former Czech President Vaclav Havel, which included traveling 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.

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. Using developmental kinesiology in the treatment of newborns and infants with cerebral palsy. Professor Kolar is also currently involved in a second research project, studying postural activity of the diaphragm and conservative treatment of radicular pain syndromes. In 2009 Pavel Kolar successfully completed his Ph.D. His thesis was: "Dynamic MRI and spirometric analysis of diaphragmatic activity."

Professor Kolar is also a member of interdisciplinary team at the Orthopedic Unit at the hospital. This concerns evaluation of children suffering from cerebral palsy and poor posture resulting in orthopedic deformities and indications for surgical treatment. His work is highly appreciated by orthopedists, who consider his opinion to be very important for surgical indications.

Professor Kolar has taught his methods in Europe, North America, Asia and Australia. In 2009-2012 Dr. Kolar accepted an appointment as Adjunct Senior Lecturer in the Faculty of Health Sciences, Murdoch University, Australia.

Professor Kolar owns and oversees the prestigious private rehabilitation centre in Prague called "Pavel Kolar's Centre of Physical Medicine". <https://cpmpk.cz/?lang=en>

## **COURSE INSTRUCTOR**

### **Robert Lardner, PT**



Robert Lardner was born in Nigeria in 1961. His first career was as a professional ballet and modern dancer after studying at the Rambert Ballet Academy outside London, England. Going back to University he graduated from the Department of Physical Therapy, Lund's University, Sweden in 1991.

He has worked in several in- and out- patient rehabilitation facilities in Sweden prior to moving to the United States in 1992. Having been a staff physical therapist at McNeal Hospital, Clearing Industrial Clinic, and a physical therapy supervisor at Mercy Hospital, he has also been in charge of physical therapy services at a number of private outpatient and sports clinics.

He has also studied with Professors of Janda, Lewit and Kolář from the Czech Republic who are pioneers of functional rehabilitation and manual medicine and who have strongly influence his philosophy and practice of physical therapy. He is a member of the International College of Applied Kinesiology (ICAK) Currently, he is in private practice in Chicago and teaches various rehabilitation seminars throughout the United States and Europe.