DYNAMIC NEUROMUSCULAR STABILIZATION

Course : Dynamic Neuromuscular Stabilization Course B Instructors: Magdalena Lepsikova, MPT Registration: dnssweden@gmail.com







Prague School meets Bosön Stockholm

From November 14-16 2014 you can participate in Dynamic Neuromuscular Stabilization Course B. Magdalena Lepsikova from Prague School of Rehabilitation will be teaching the essentials of this exciting technique in a 3-day seminar, held at the Nordic's leading centre of sports training and education: Bosön (Swedish National Sports Complex) at Lidingö in Stockholm, Sweden.

DNS is a technique which adequately uses developmental kinesiology to assess and improve the functional stability of the locomotor system. In other words, the approach focuses on the fact that motor development in the child will always determine motor function and posture in the adult. Problems with this centrally steered motor function will result in predetermined patterns of muscular tension and joint fixations, which can be improved dramatically by DNS treatment.

During the presented B course, the main principles of DNS will be outlined, providing an insight of its foundations, with plenty of opportunity for hands-on practise. For further information, please visit www.rehabps.com.

Please do not hesitate to contact the organisation committee at dnssweden@gmail.com should you have any questions and/or comments.

Registration fee:

- Registration fee SEK5950,- (incl. VAT, payment before 01.10.2014. Thereafter, registration fee SEK6450,-. Last registration date 13.10.2014.)
- Special offer: Registration fee including all meals (breakfast, lunch, dinner (excl. drinks)) and accomodation on Bosön's

premises SEK7950,- (incl. VAT, payment before 01.10.2014, based on single room, 2 nights. Additional night, and/or double room rates available upon request through dnssweden@gmail.com)

 Please note: an additional fee of €80,is to be paid to Prague School upon registration through their website www.rehabps.com (this is a prerequisite for registration).



Dynamic Neuromuscular Stabilization The nervous system establishes programs that control human locomotion, which is comprised of posture and movement. This 'motor control' is largely established during the first critical years of life. Therefore, the "Prague School" emphasizes neurodevelopmental aspects of motor control in order to assess and restore dysfunction of the locomotor system and associated syndromes.

The "Prague School" of Rehabilitation and Manual Medicine was established by key neurologists/physiatrists, all of whom were giants in the 20th Century rehabilitation movement: Professors' Vaclav Vojta, Karel Lewit, Vladimir Janda, and Frantisek Vele.

Based upon the groundbreaking neurodevelopmental and rehabilitation principles described by these mentors, Pavel Kolář has organized the next generation of clinical protocols that are designed to restore and stabilize locomotor function. This new rehabilitation approach is called Dynamic Neuromuscular Stabilization (DNS).



Prof. Pavel Kolář, PT, PaedDr, PhD is a physiotherapist by training who holds a doctorate in pediatrics. He is the author of the revolutionary diagnostic and treatment approach known as Dynamic Neuromuscular Stabilization (DNS), which is based on developmental kinesiology. His instructors, Professor Karel Lewit and the late Professors Vaclav Vojta and Vladimir Janda, profoundly influenced him in his evolution of DNS.

Professor Kolář 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. Because of the profound influence of DNS to rehabilitation in the Czech Republic, Professor Kolář was awarded the prestigious "Presidential Award for Professional Excellence" by Czech President Vaclav Klaus in 2007.



Welcome to Bosön - the heart of Swedish sports training and education! Bosön - Swedish National Sports Complex - is the meeting place for sport leaders, national and international athletes, national teams and clubs as well as for people from other organisations and companies.

The complex, which is owned by the Swedish Sports Confederation, is beautifully situated at the seaside north of Stockholm. It is situated in the Stockholm archipelago, in the area Lidingö, only 20 minutes from Stockholm city.

Bosön can be reached easily by using public transport (instructions in English on how to get there can be obtained from the course organisors) or car.

For further information please visit www.boson.nu.

Course Schedule

<u>Day 1</u>

9.00 – 10.30 Developmental Kinesiology & ontogenesis; review of the basic principles

10.30 – 11.00 Coffee break

11.00 – 12.30 Primitive reflexes, postural reactions & postural activity during the first year of life

12.30 – 13.30 Lunch

13.30 - 15.00 Functional assessment during the first year of life – demonstration of babies & video demonstration.

15.00 – 15.30 Coffee break

15.30 - 17.00 Distinguish physiological and pathological development; central coordination disturbance; determine the developmental age. Proper baby handling

<u>Day 2</u>

9.00 – 10.30 Optimal spinal stabilization; review of the basic DNS tests

10.30 – 11.00 Coffee break

11.00 – 12.30 Additional and advanced DNS tests - workshop

12.30 – 13.30 Lunch

13.30–15.00 Reflex locomotion principles in the DNS – review of reflex turning phase 1 and reflex creeping: workshop

- *15.00 15.30* Coffee break
- *15.30 17.00* Workshop:

Reflex locomotion principles in the DNS -2^{nd} phase of reflex turning & 1st position

<u>Day 3</u>

8.30 – 10.30 Active exercise prescription based on developmental & reflex locomotion positions

10.30 – 11.00 Coffee break

11.00 – 12.30 Workshop: Workshop: mobilization and relaxation techniques based on developmental kinesiology principles.

12.30 – 13.30 Lunch

13.30 – 15.00 Workshop: Advanced positions for active exercise. Patient's education.

Final DNS review & discussion.

Course Goals

Course attendees will have a clear understanding of:

- Developmental kinesiology basic principles; ontogenesis during the first year of life, relationship between early ontogenesis and pathology of the movement system in adulthood (Course "A" review)
- Primitive reflexes, postural activity, postural reactions: its importance in assessment, early identification of abnormal development
- Assessment of newborn and babies during the first year of life, developmental age determination, practical & video demonstration
- Assessment of spinal, chest and pelvic stabilization, assessment of breathing stereotype using the DNS tests. Advanced modification of the DNS tests, practical details in clinical evaluation. Practical demonstration of adult patients.
- Basic principles of reflex locomotion and its application within the DNS: RT1, RT2, RC and 1st position
- DNS therapeutic approaches training optimal sagittal core stabilization. DNS active exercise based on reflex locomotion principles and developmental positions. Review of the basic treatment positions demonstrated in course "A", demonstration and practical workshop of advanced positions & modifications.
- How to integrate the DNS with other rehabilitation approaches: myoskeletal mobilization and relaxation techniques
- Cortical function & dyspraxia: assessment of body scheme; how to integrate cortical control within the DNS training.
- Patient's education and DNS self-treatment.
- Parent's education in proper baby handling
- Getting ready for the DNS course "C"

Course attendees will possess:

- Skills to utilize basic and advanced tests to evaluate the stabilizing system of the spine and breathing stereotype
- Skills to integrate basic principles of reflex locomotion within the DNS techniques
- Skills to utilize advanced developmental positions in active treatment of the stabilizing system of the spine and in patient's education
- Skills to determine developmental age and recognize signs of abnormal early development
- Skills to assess quality of cortical function
- Skills to integrate developmental principles within other rehabilitation approaches.

With the above knowledge and skills, the attendee should be able to clinically apply these principles for:

- Treatment of functional pathology of the locomotor system including vertebrogenic and radicular pain & painful syndromes resulting from chronic overload
- Treatment of functional pathology of the locomotor system resulting from poor early development.
- Proper handling of babies

PRAGUE SCHOOL CERTIFICATES & OPTIONAL EXAMINATION:

A Certificate of ATTENDANCE is awarded by the PRAGUE SCHOOL to each DNS course participant.



Participants who would like to participate in the educational track towards becoming a certified practitioner can take exam for an additional fee of 100 Euros.

The test is available online after the course, consists of 15 videos of babies and 14 picture questions. Students are expected to determine the developmental age and distinguish physiological and pathological postural development. Participants are required to return the test to the PS instructor within 8 weeks after the course. Upon successful completion and passing of the test, a **Certificate of ACHIEVEMENT** from Prague School of Rehabilitation will be awarded.

<u>Author of the DNS concept:</u> 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 2nd 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
- 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 form 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 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 Motion Medicine". <u>http://www.cpmchodov.cz</u>/

Course Instructor



Magdaléna Lepšíková, MPT

Ms. Lepsikova graduated from Charles University, Dept. of Physical Therapy and specializes in rehabilitation of locomotor system dysfunction. From 2001, she has been working as physiotherapist at the Physical Therapy Department, Motol Hospital, Prague. From 2005, she has been working at 2nd Faculty of Medicine, Charles University, Prague as a lector. She regularly instructs both medical and physiotherapy students at the hospital.

Ms. Lepsikova is a certified Vojta, Bobath and Feldenkrais therapist and has trained and worked with Professors Lewit and Kolar at the rehabilitation department for more than 10 years, treating both adult clients and children with varous musculoskeletal, neurological and orthopedic diagnoses.

Fluent in English, Ms. Lepsikova has served as an assistant skills instructor for several of Professor Kolar's courses for international clinical groups who come to study in Prague, in addition to lecturing on his methods in numerous European countries, USA, Canada and Japan. In addition to DNS approach, she is a certified instructor in Manual Medicine in the Czech Republic. She resides in Prague with her husband and two daughters.