



## **Dynamic Neuromuscular Stabilization Course A**

### **COURSE DESCRIPTION**

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 era, i.e. the late Professors Karel Lewit, Vaclav Vojta, Vladimir Janda & Frantisek Vele.

Based on groundbreaking neurodevelopmental and rehabilitation principles by these men, Professor Pavel Kolar has successfully integrated the work of his predecessors, in proposing the underlying neurodevelopmental mechanism for how the movement system develops hand-in-hand with CNS maturation. This complex approach is “cutting-edge” in that it provides a window into the complexity and plasticity of the CNS and its effect on the movement system. The DNS approach can be used in the rehabilitation of a myriad of neurologic, musculoskeletal pain syndromes as well as performance athletic training.

The nervous system establishes programs that control human locomotion, that includes posture and movement. This critical “motor control” is largely established during the first years of life. Based upon the principles of neurodevelopmental kinesiology, i.e. the neurophysiologic aspects of the maturing movement system on which the Prague School was established, the scope of clinical rehabilitation options for many of our neurologic and musculoskeletal pain patients has been expanded. The DNS approach involves every component of the movement system (i.e. muscles, joints, nerves and, & soft tissue) by stimulating movement control centers in the brain through activation of ideal inborn movement stereotypes. This, in turn, helps restore the structural and postural alignment of the body’s neuro-musculo-skeletal system by evoking the global motor patterns. Global motor patterns form the foundation of human movement and represent genetically predetermined elements for up-righting and equilibrium. These patterns are essential for the control of posture and dynamic stability of the spine through the lifespan of the individual.

Instructional Level: Basic

Instructor-Student Ratio: 1:16

For more information on this approach, please check out [www.rehabps.com](http://www.rehabps.com)

### **COURSE OBJECTIVES**

- Demonstrate an understanding of developmental kinesiology with an emphasis on the first year of life and its relationship to locomotor dysfunctions.
- Describe ideal respiration & postural stabilization from a developmental perspective; the dual functional role of the diaphragm in respiration & stabilization and intra-abdominal pressure regulation.
- Assess and train the intrinsic spinal stabilizing system based on the principles of DNS.
- Integrate corrective exercises based on impairments of the stabilizing system and developmental kinesiology positions.



### Course A Breakdown / Schedule:

#### DAY 1

8:00 – 8:30 AM	Registration
8:30 – 10:30 AM	Lecture: Introduction to Dynamic Neuromuscular Stabilization
10:30 – 10:45 AM	Break
10:45 – 12:30 PM	Lecture: Postural Ontogenesis and Motor Development from a Developmental Kinesiology model
12:30 – 1:30 PM	Lunch
1:30 – 3:15 PM	Lecture/Lab: Respiration and assessment of the Integrated Spinal Stabilizing System (ISSS)
3:15 – 3:30 PM	Break
3:30 – 6:30 PM	Lab: ISSS assessment ( <i>cont.</i> )

#### DAY 2

8:30 – 10:30 AM	Lecture/Lab: Movement Flow & Active Exercise
10:30 – 10:45 AM	Break
10:45 – 12:30 PM	Lab – exercises
12:30 – 1:30 PM	Lunch
1:30 – 3:15 PM	Lab – exercises ( <i>cont.</i> )
3:15 – 3:30 PM	Break
3:30 – 5:00 PM	Lab – exercises ( <i>cont.</i> )
5:00 – 6:30 PM	Putting it together: Test & re-test

Day 1 = 7.5 hours

Day 2 = 7.5 hours

Total: 15 Contact Hours



## **Dynamic Neuromuscular Stabilization Course B**

### **COURSE DESCRIPTION**

The nervous system establishes programs that control human locomotion, that includes posture and movement. This critical “motor control” is largely established during the first years of life. Based upon the principles of neurodevelopmental kinesiology, i.e. the neurophysiologic aspects of the maturing movement system on which the Prague School was established, the scope of clinical rehabilitation options for many of our neurologic and musculoskeletal pain patients has been expanded. The DNS approach involves every component of the movement system (i.e. muscles, joints, nerves and, & soft tissue) by stimulating movement control centers in the brain through activation of ideal inborn movement stereotypes. This, in turn, helps restore the structural and postural alignment of the body’s neuro-musculo-skeletal system by evoking the global motor patterns. Global motor patterns form the foundation of human movement and represent genetically predetermined elements for up-righting and equilibrium. These patterns are essential for the control of posture and dynamic stability of the spine through the lifespan of the individual.

Prerequisite: Completion of Course A

Instructional Level: Basic

Instructor-Student Ratio: 1:16

For more information on this approach, please check out [www.rehabps.com](http://www.rehabps.com)

### **COURSE OBJECTIVES**

- Demonstrate more in-depth understanding of developmental kinesiology and its relationship to pathology of the movement system:
- Describe the basis for primitive reflexes and postural reactions and their role in development kinesiology.
- Demonstrate in-depth assessment of postural analysis, the intrinsic spinal stabilizing system & functional tests.
- Demonstrate in-depth assessment of postural analysis, the intrinsic spinal stabilizing system & functional tests.
- Describe cortical function & its role in movement & posture.
- Demonstrate clinical reasoning & application of DNS principles in managing complex musculoskeletal pain dysfunctions.



## Course B Breakdown / Schedule:

### DAY 1

8:30 – 9:00 AM	Registration
9:00 – 10:30 AM	Lecture/Lab: Review of finer points of developmental kinesiology & ISSS tests from Course A
10:30 – 10:45 AM	Break
10:45 – 12:30 PM	Lab ( <i>cont.</i> )
12:30 – 1:30 PM	Lunch
1:30 – 3:00 PM	Lecture/Lab: Additional tests in more advanced developmental positions.
3:15 – 3:30 PM	Break
3:30 – 5:00 PM	Lab ( <i>cont.</i> )

### DAY 2

9:00 – 10:45 AM	Lecture: Primitive reflexes & Postural reactions
10:45 – 11:00 AM	Break
11:00 – 12:30 PM	Lab: ISSS Lab ( <i>cont.</i> )
12:30 – 1:30 PM	Lunch
1:30 – 3:15 PM	Lecture/Lab: Active Exercise
3:15 – 3:30 PM	Break
3:30 – 5:00 PM	Lab – exercises ( <i>cont.</i> )

### Day 3

8:30 – 10:45 AM	Lab – exercises ( <i>cont.</i> )
10:45 – 11:00 AM	Break
11:00 – 12:30 PM	Putting it together: Test & re-test
12:30 – 1:30 PM	Lunch
1:30 – 3:00 PM	Lab ( <i>cont.</i> )

Day 1 = 6.5 hours

Day 2 = 6.5 hours

Day 3 = 5.0 hours

Total: 18 Contact Hours



## **Dynamic Neuromuscular Stabilization Course C**

### **COURSE DESCRIPTION**

The nervous system establishes programs that control human locomotion, that includes posture and movement. This critical “motor control” is largely established during the first years of life. Based upon the principles of neurodevelopmental kinesiology, i.e. the neurophysiologic aspects of the maturing movement system on which the Prague School was established, the scope of clinical rehabilitation options for many of our neurologic and musculoskeletal pain patients has been expanded. The DNS approach involves every component of the movement system (i.e. muscles, joints, nerves and, & soft tissue) by stimulating movement control centers in the brain through activation of ideal inborn movement stereotypes. This, in turn, helps restore the structural and postural alignment of the body’s neuro-musculo-skeletal system by evoking the global motor patterns. Global motor patterns form the foundation of human movement and represent genetically predetermined elements for up-righting and equilibrium. These patterns are essential for the control of posture and dynamic stability of the spine through the lifespan of the individual.

Prerequisite: Completion of Course A & B

Instructional Level: Intermediate

Instructor-Student Ratio: 1:16

For more information on this approach, please check out [www.rehabps.com](http://www.rehabps.com)

### **COURSE OBJECTIVES**

- Demonstrate more in-depth understanding of developmental kinesiology and its relationship to pathology of the movement system with a focus on the hip, shoulder, pelvic floor and scoliotic dysfunctions.
- Describe the kinesiology of muscle chains involved in active exercises based on key developmental positions.
- Demonstrate in-depth assessment of postural analysis, the intrinsic spinal stabilizing system & functional tests with clinical reasoning.
- Describe cortical function & its role in movement & posture.
- Integrate corrective exercises based on impairments of the stabilizing system and developmental positions.



### Course C Breakdown / Schedule:

#### DAY 1

8:30 – 9:00 AM	Registration
9:00 – 10:30 AM	Lab: Review of finer points of developmental kinesiology & ISSS tests from Courses A & B.
10:30 – 10:45 AM	Break
10:45 – 12:30 PM	Lab ( <i>cont.</i> )
12:30 – 1:30 PM	Lunch
1:30 – 3:00 PM	Lecture/Lab: Evaluation & Management of Hip dysfunction
3:15 – 3:30 PM	Break
3:30 – 5:00 PM	Lab ( <i>cont.</i> )

#### DAY 2

9:00 – 10:45 AM	Lecture/Lab: Evaluation & Management of Shoulder dysfunction
10:45 – 11:00 AM	Break
11:00 – 12:30 PM	Lab ( <i>cont.</i> )
12:30 – 1:30 PM	Lunch
1:30 – 3:15 PM	Lab ( <i>cont.</i> )
3:15 – 3:30 PM	Break
3:30 – 5:00 PM	Lecture/Lab: Pelvic floor dysfunction & the role of intra-abdominal Pressure regulation.

#### Day 3

8:30 – 10:45 AM	Lecture/Lab: Evaluation & Management of Scoliosis
10:45 – 11:00 AM	Break
11:00 – 12:30 PM	Lab ( <i>cont.</i> )
12:30 – 1:30 PM	Lunch
1:30 – 3:00 PM	Putting it together: Test & re-test

Day 1 = 6.5 hours  
Day 2 = 6.5 hours  
Day 3 = 5.0 hours  
Total: 18 Contact Hours