Basic Bobath Course Neurophysiology Pre-Course Reading

Lecture 1 The Bobath Concept

Learning outcomes

- To review the current Bobath Concept in respect of its historical development
- To appreciate the evolution of neurophysiology since the concept originated
- To identify the specific focus of the Bobath Concept in respect of disability models
- To review the current theoretical basis of the Bobath Concept
- To appreciate specific characteristics within the application of the Bobath Concept

Key reading


Lecture 2 Communication Within the Central Nervous System

Learning outcomes

- To understand synaptic organisation and the role of neurotransmitters in communication within the CNS
- To understand transport within the CNS
- To be aware of how modulation occurs within the nervous system through facilitation and inhibition
- To consider the clinical relevance of central communication to motor output

Key reading


Lecture 3 Sensory Systems

Learning outcomes

- To understand the way in which somatosensory information is detected
- To relate these mechanisms to relevant sensory pathways and appreciate their role in movement control
- To understand the means by which sensory information is processed at cortical and sub-cortical levels of the CNS
- To understand how sensory input leads to mapping in the somatosensory cortex and body schema awareness
- To appreciate the manipulation of afferent information as the basis of facilitation

Key reading

Rothwell Rosenkranz (2005)


Lecture 4 The Integrative Function of the Nervous System in the Control of Movement

Learning outcomes

- To consider the areas within the CNS not directly involved in the execution of movement but essential to the production of appropriate movement
- To gain an understanding of the complex processing that occurs within the CNS and affects output and the role of association areas and their interaction

Key reading


Lecture 5 The Descending Systems

Learning outcomes

- To be able to identify the key roles of the main descending systems
- To understand the interaction between postural systems and movement systems and their role in clinical practice

Key reading


Lecture 6 Upper Motor Neurone Syndrome 1

Learning outcomes

- To identify key aspects of normal muscle structure and function
- To Identify negative aspects of the upper motor neurone syndrome
- To understand the clinical consequences of neurological dysfunction on muscle, soft tissue and joint structures

Key reading


Lecture 7 Upper Motor Neurone Syndrome 2

Learning outcomes

• To identify the key features of the positive aspects of Upper Motor Neurone Syndrome

• To understand neural and non neural elements

• To identify key aspects of modulation

Key reading


Lecture 8 Motor Learning and Recovery Through the Process of Neuroplasticity

Learning outcomes

• To have a knowledge of the physiological basis underpinning motor learning and recovery

• To consider how therapists can influence neuroplasticity leading to motor learning and recovery

• To synthesise the theory of neuroplasticity with what you see in the clinical setting

Key reading
