



BOBATH APPROACH

www.fisiokinesiterapia.biz

HISTORY

BERTA BOBATH

REMEDIAL GYMNAST
AND PHYSICAL THERAPIST

KAREL BOBATH

M.D. AND
PSYCHIATRIST

MARRIAGE 1941

SIMON ELWES 1943

WESTERN CEREBRAL PALSY CENTRE 1951

THE BOBATH CENTRE 1975

IBITA 1984 & BBTA 1994

OLD CONCEPT

A concept of treatment based on the inhibition of abnormal reflex activity and the relearning of normal movement, through the facilitation and handling.

ORIGINAL BOBATH CONCEPT

1

- Developed empirically to explain the observed signs and symptoms of the patients at 1945-1975
- CNS developed as a hierarchical structure
- The complexity of the structure was defined in terms of the size and number of connections(Sherrington, Magnus, Walshe)

ORIGINAL BOBATH CONCEPT

2

- Movement was elicited through the stimulation of reflexes in the spinal cord(Bobath, Walshe)
- Lesions of the pyramidal tract produced a loss of inhibitory control and therefore contra lateral spastic hemiplegia(Sherrington, Brown, Walshe, Bobath)
- AR and Spasticity were one and the same thing and they were involuntary reflex actions(Walshe, Bobath)

BOBATH CONCEPT

- is a problem-solving approach to the assessment and treatment of individuals with disturbances of tone, movement, and function due to a lesion of CNS, The goal of treatment is to optimize function by improving postural control and selective movement through facilitation(IBITA 1995).
-

GOALS OF BOBATH CONCEPT 1

- To identify and address the specific areas of low tone in the anti-gravity musculature
 - To seek to control the amount and diversity of proprioceptive input
 - To identify the primary goals for function in the individual person, and to understand the nature of how that function is performed efficiently "Normally"
-

GOALS OF BOBATH CONCEPT 2

- To facilitate specific motor activity without overflow of irradiation that could elicit associated reactions
 - To minimize compensation and therefore sensory/motor neglect of the affected body parts
 - To identify when and how voluntary controls can be used effectively
-

"CURRENTLY" CONCEPT 1

"NO LONGER EMPIRICAL"

- The CNS is a complex organization consisting of "systems & subsystem"
 - The CNS can adapt and change its structural organization
 - The manipulation of afferent input can therefore directly effect a change in the structural organization of the CNS
-

"CURRENTLY" CONCEPT 2

- Changes within the structure of the CNS can be organized or disorganized producing adaptive or maladaptive sensory-motor behavior
 - Movement control's dependent upon and intact, integrated neurological and musculoskeletal system
 - Selective movement control of the trunk & the limbs, both concentric and eccentric are interdependent and interactive with a postural control mechanism
-

"CURRENTLY" CONCEPT 3

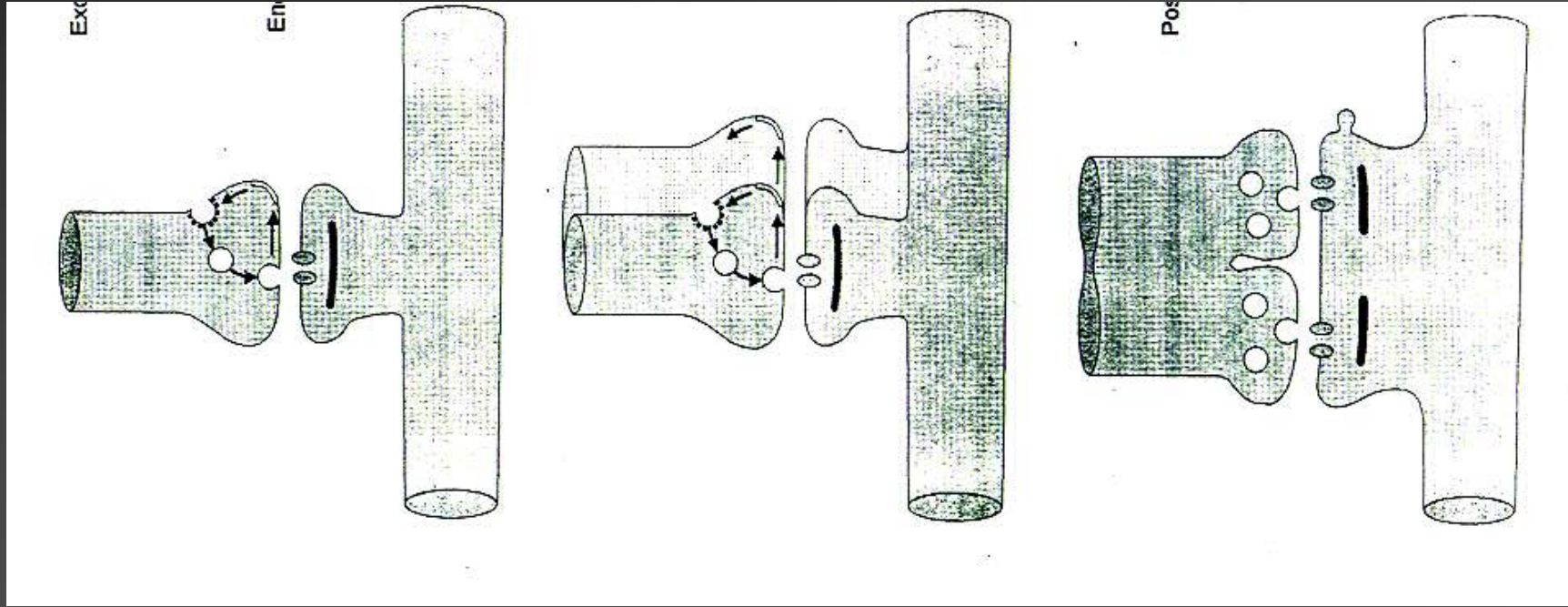
- Rehabilitation is a process of learning to regain motor control and should not be the promotion of the compensation
 - The cellular mechanisms underlying learning are the same mechanisms that take place during : motor development refinement & re-learning of motor control
-

UNFINISHED BOBATH CONCEPT

“The Bobath concept is unfinished and we hope that it will grow and develop in years to come”

(Karel Bobath at Jerusalem, 1986)

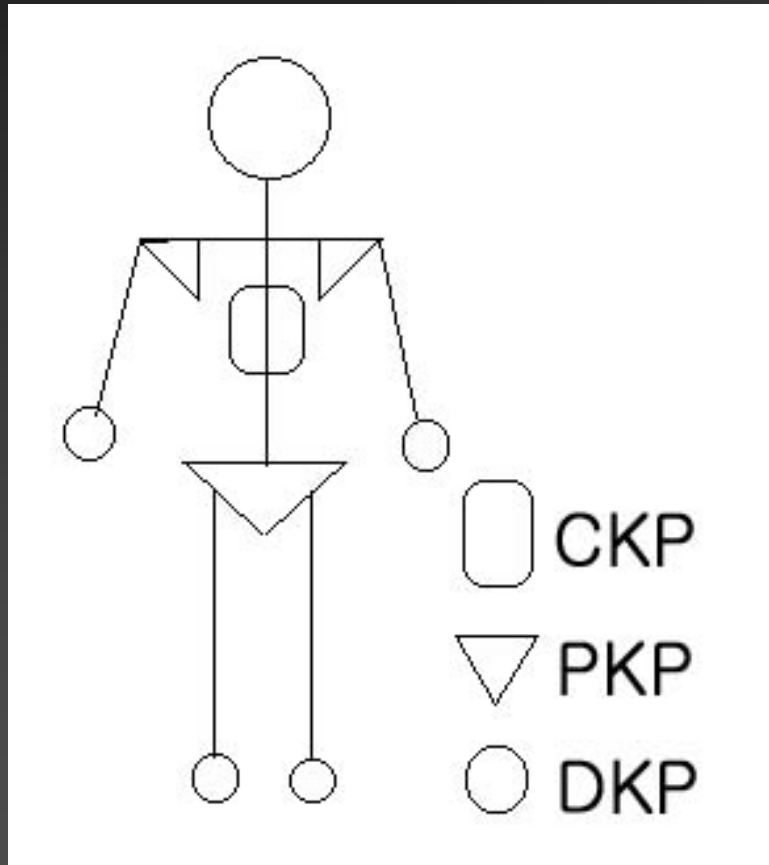
NEUROPLASTICITY



NEUROPLASTICITY THEORY

- Unmasking
 - Neural shock resolution
 - Recovery of synaptic effectiveness
 - Synaptic Hypereffectiveness
 - Denervation Supersensitivity
 - Persistence of Hyperinnervation
 - Recruitment of Silent Synapses
 - Sprouting
-

KEY POINT



- CKP(Central Key Point)
 - Ant(xiphoid process)
 - Post(T7,8)
- PKP(Proximal Key Point)
 - Head, Shoulder, Pelvis
- DKP(Distal Key Point)
 - Hand, Foot

KEY POINT 1

- CKP(Central Key Point)
 - Ant(Xiphoid process), Post(T7,8)
 - Trunk-posture & movement
 - Facet joint rotation
 - Upper trunk lower trunk selective movement
 - Right reaction
-

KEY POINT 2

- PKP(Proximal Key Point)
 - Head, Shoulder, Pelvis
 - Stability
 - Trunk extremity
 - mobility
-

KEY POINT 3

- DKP(Distal Key Point)

- Mobility □ □ □

- Fine movement □ □ □ □ □ □

- Movement □ □ □ □ □ □ CNS □ □ □

- CNS □ feedback movement □ □ □

KEY POINT CONTROL

- □□□ postural tone □□
 - Abnormal pattern □ □□
 - Normal sensory & motor control □□
-

KEY POINT CONTROL

- Postural alignment
 - Postural tone
 - Postural set
-

POSTURAL ALIGNMENT 1



POSTURAL ALIGNMENT 2



POSTURAL ALIGNMENT 3



POSTURAL ALIGNMENT 4



POSTURAL ALIGNMENT 5



POSTURAL ALIGNMENT 6



POSTURAL ALIGNMENT 7

