

Functional Mobility

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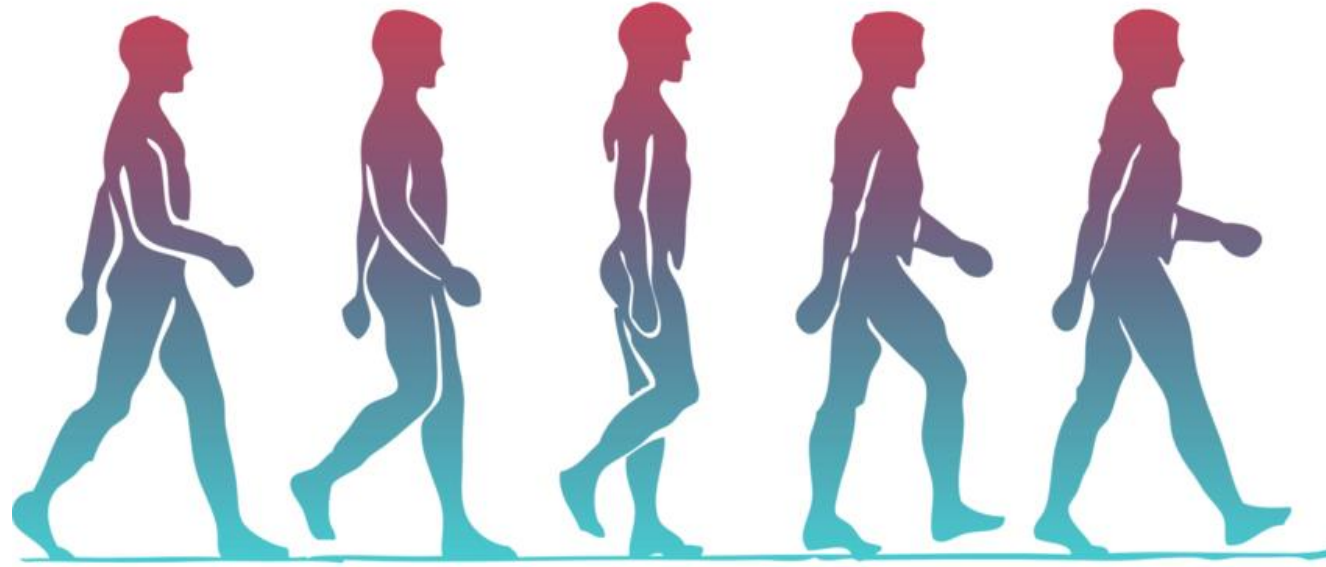


learning Objectives



- To be able to understand functional range of motion and the relationship between stability and mobility
- To know how our body moves together and the connection between its parts
- To be able to understand how our body responds and adapts to mobility training
- To be able to assess the fundamental movement patterns and major joints of the human body
- To be able to design a comprehensive and effective mobility restoration program

Mobility definition



الموبيليتي هيا القدره على التحرك

Mobility in oxford dictionary is the ability to move freely and easily

Mobility is a fitness element that represents the ability yo achieve a certain range of motion that can be measured by centimeters or degrees

Passive vs active range of motion



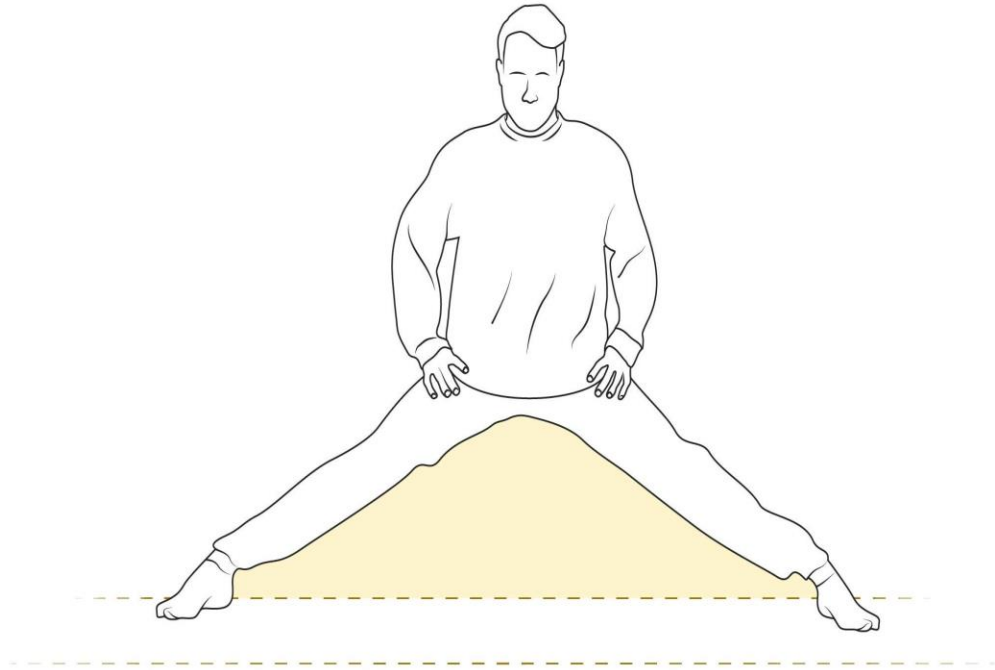
Usable ROM (Active)



Unusable ROM (Passive)

ROM*: Range of motion

Old practice vs new practice



- Does it really transfer?
- What is more functional?



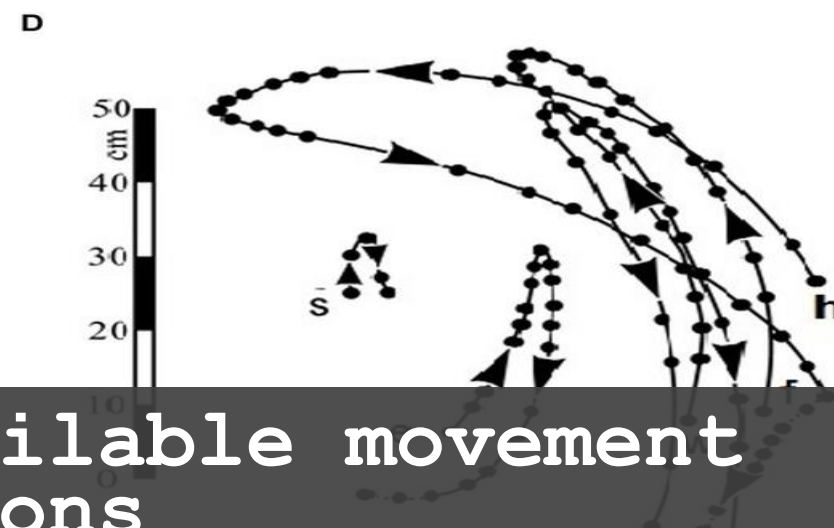
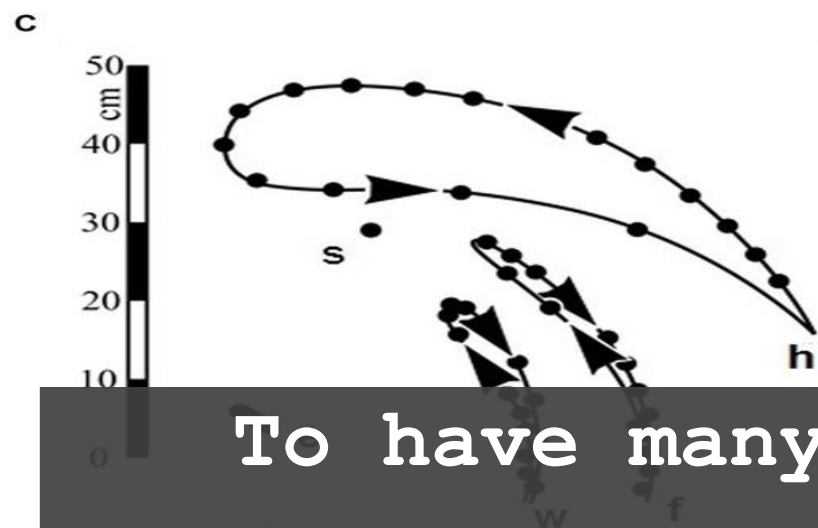
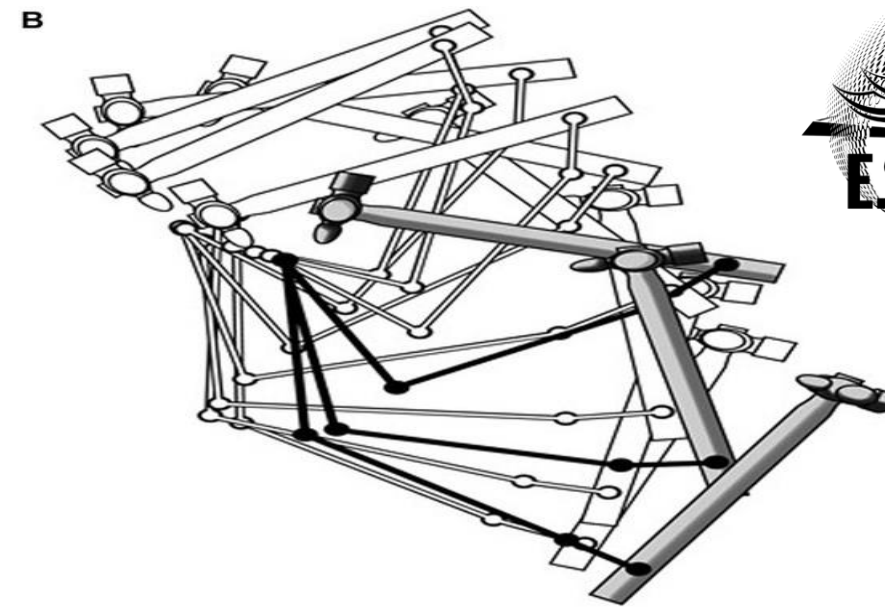
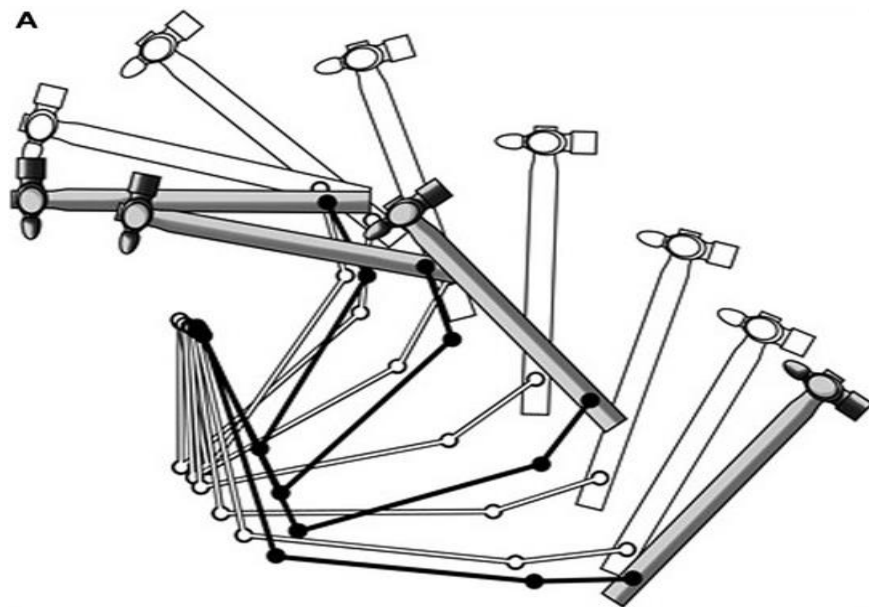
Functional Mobility Definition



Ability to move into available ROM



All joints have full ROM according
to their function



To have many available movement options

s – shoulder
e – elbow
w – wrist
f – fingers
h – hammerhead

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e – elbow
w – wrist
f – fingers
h – hammerhead

Functional Mobility Definition



Functional mobility = ROM + Strength + motor control + awareness + stability

Strength: the total amount of force the muscles can produce

Motor control: the ability to regulate mechanisms essential to movement

Awareness: the ability to feel one's body and its dimensions in space

Dynamic stability: the ability to create the desired movement without undesired movement from other joints

Static stability: the ability of a joint system to maintain position in the presence of change



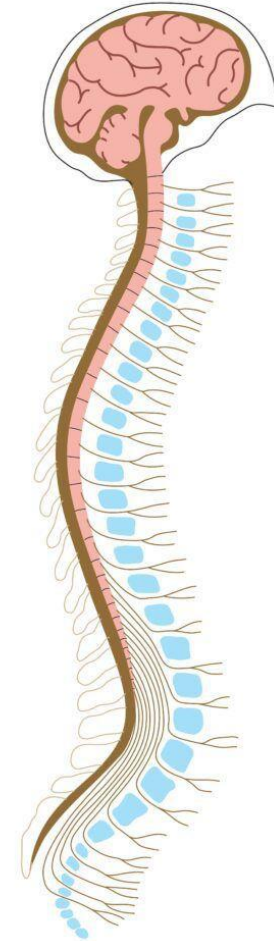
Compensation pattern: alternative movement patterns that the human body adopts to work around dysfunction or impairment in the movement system

Movement options: having the ability to perform a task with a variety of techniques or movements

Movement Definition



Hardware



Software