

## SNS COLLEGE OF PHYSIOTHERAPY COIMBATORE-35



COURSE : BPT

SUBJECT : BIOMECHANICS

TOPIC : ACTIVE AND PASSIVE INSUFFICIENCY

UNIT : IV

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**ASSISTANT PROFESSOR** 





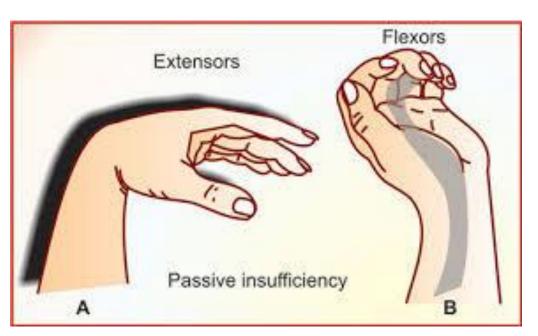
- ACTIVE INSUFFICIENCY:
- Inability to contract muscle at both joints simultaneously.

- PASSIVE INSUFFICIENCY:
- Inability to stretch muscle at both joints simultaneously





- Passive insufficiency
- E.g: making fist with flexed wrist:
- Extensors undergo passive insufficiency.
- tight fist cannot be made.







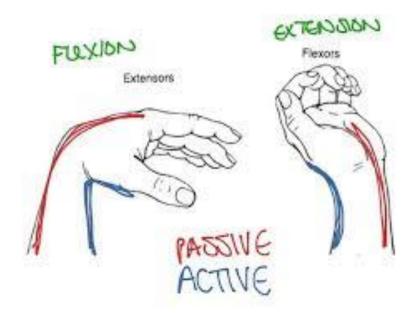
 Flexors undergo active insufficiency-preventing tight fist formation.







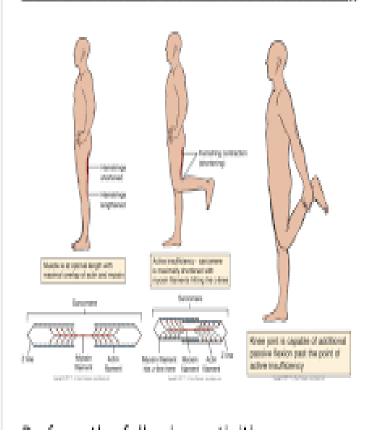
- Wrist flexion:
- Extenser muscles are lengthened over flexed wrist.
- They become insufficient to contract at the IP joint- finger extension.







## THREAD 1: ACTIVE and PASSIVE Insufficiency



Length Tension Relationship Passive Insufficiency Dr. Dtendra Sharma Total fonce Passive force **Active force** Sarcomere length Active Insuffciency

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## **THANKYOU**