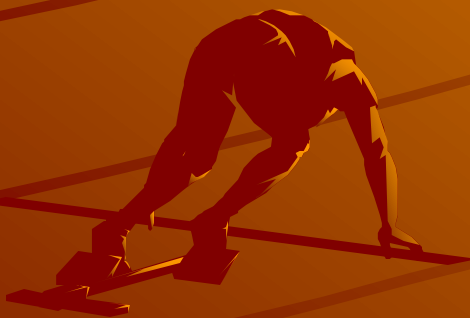


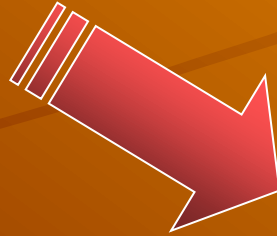
Il Rischio da movimentazione manuale dei carichi



La movimentazione manuale dei carichi



**D.Lgs. 81/08
ISO 11228**



**NIOSH
SNOOKE CIRIELLO
OCRA**



DEFINIZIONI

Quindi, per movimentazione manuale si devono intendere le azioni di:



Portare



Sollevare



Sostenere



Spingere



Tirare

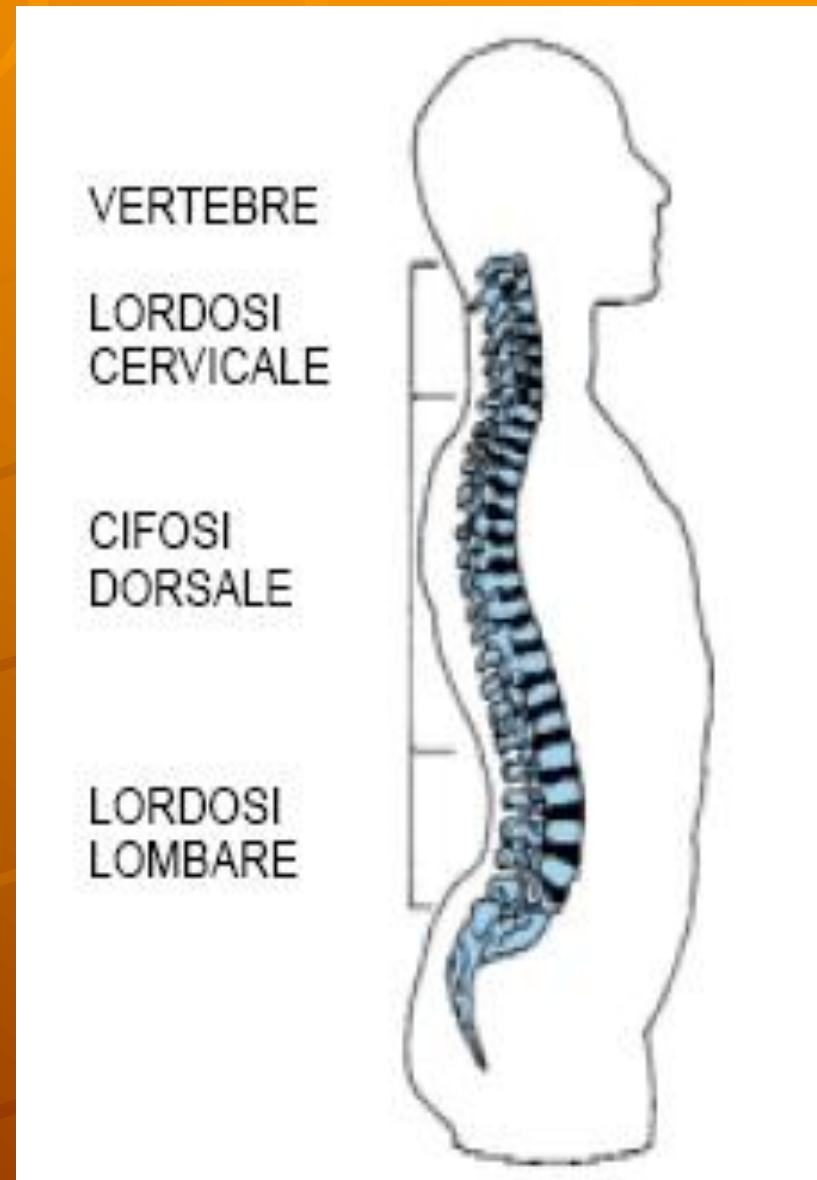


Si intuisce quindi che in ogni luogo di lavoro possono esistere molte mansioni che comportano una movimentazione manuale di carichi.

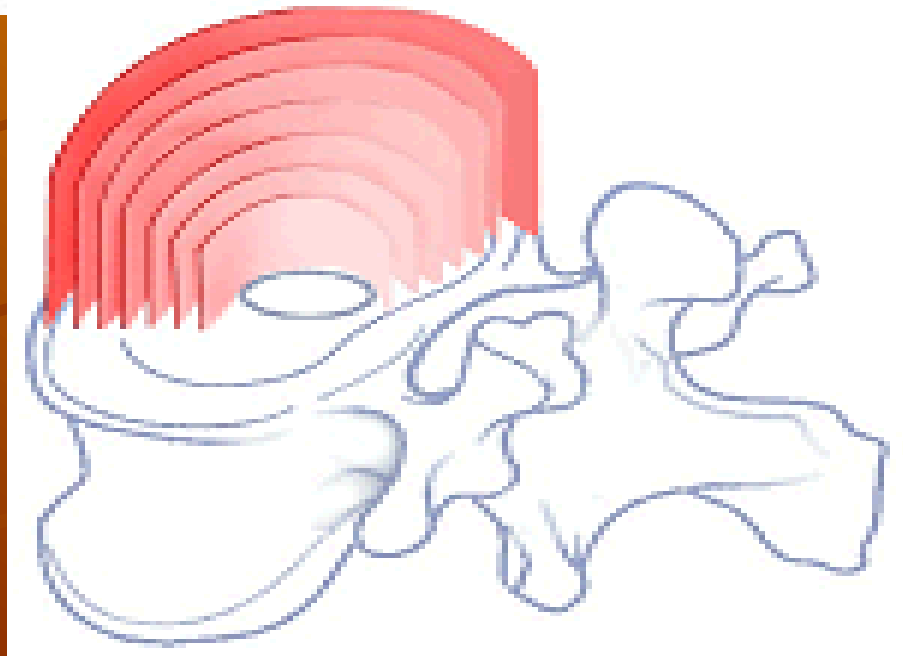
Obblighi del Datore di Lavoro

- **Individuazione dei compiti che comportano una MM potenzialmente a rischio**
- **Meccanizzazione dei processi di MM per eliminare il rischio**
- **L'ausiliazione dei processi e/o l'adozione di misure organizzative per il massimo contenimento del rischio**
- **L'uso condizionato della forza manuale**
- **La sorveglianza sanitaria**
- **L'informazione e la formazione**

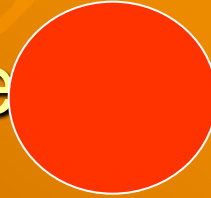
La colonna vertebrale



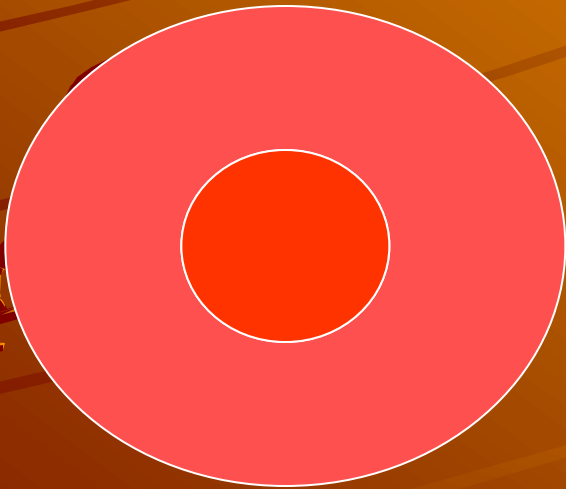
STRUTTURA DEL DISCO



Nucleo



Anello fibroso

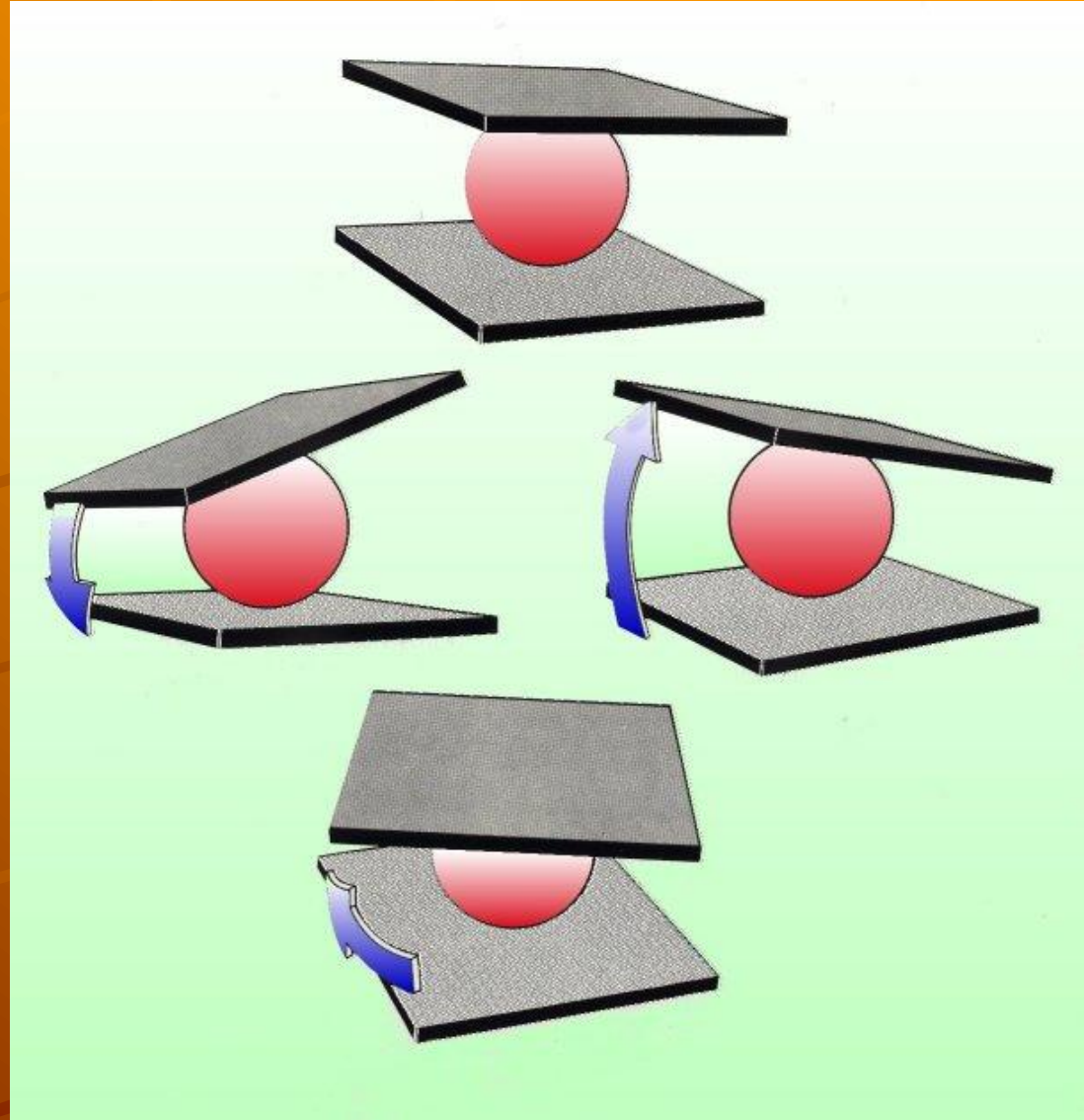


VERTEBRA

ANELLO FIBROSO

VERTEBRA

**Il disco
permette i
movimenti
tra le
vertebre**

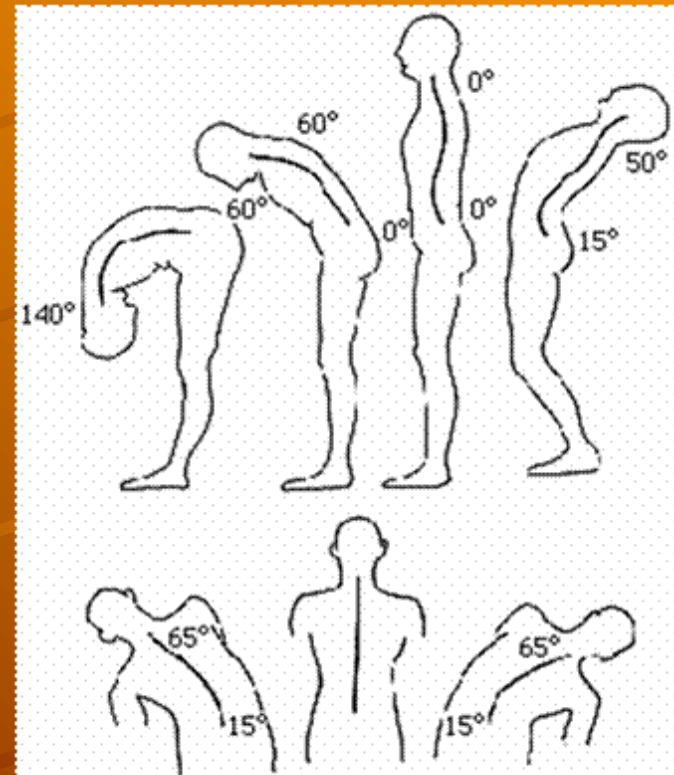
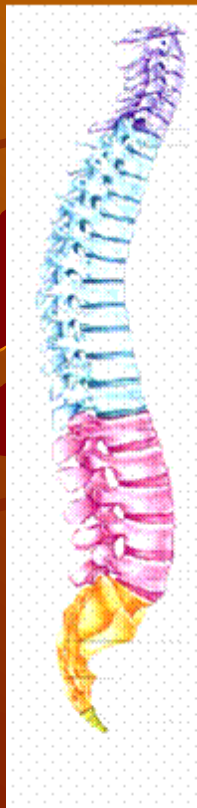


Movimentazione Manuale Carichi

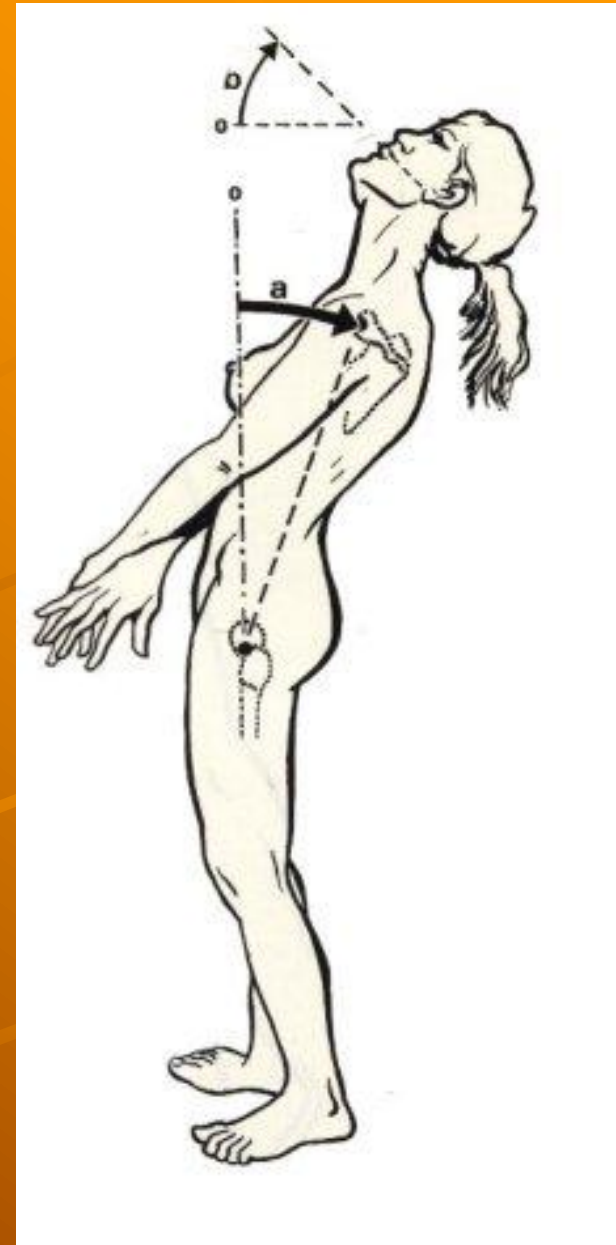
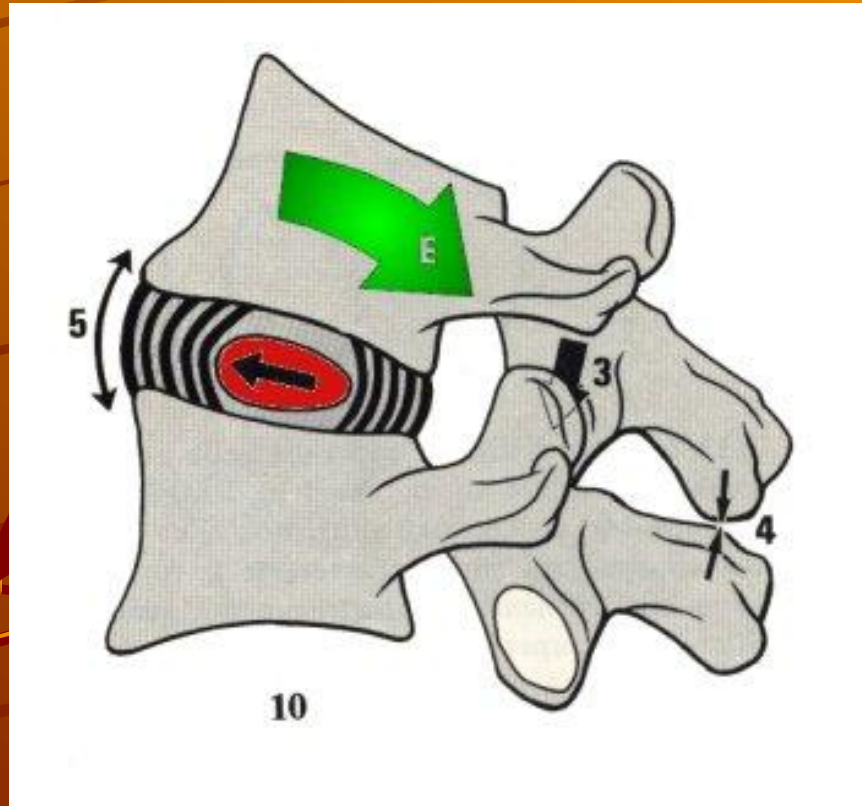
Lordosi
Cervicale
Cifosi Dorsale
Lordosi
Lombare

danno
elasticità
resistenza

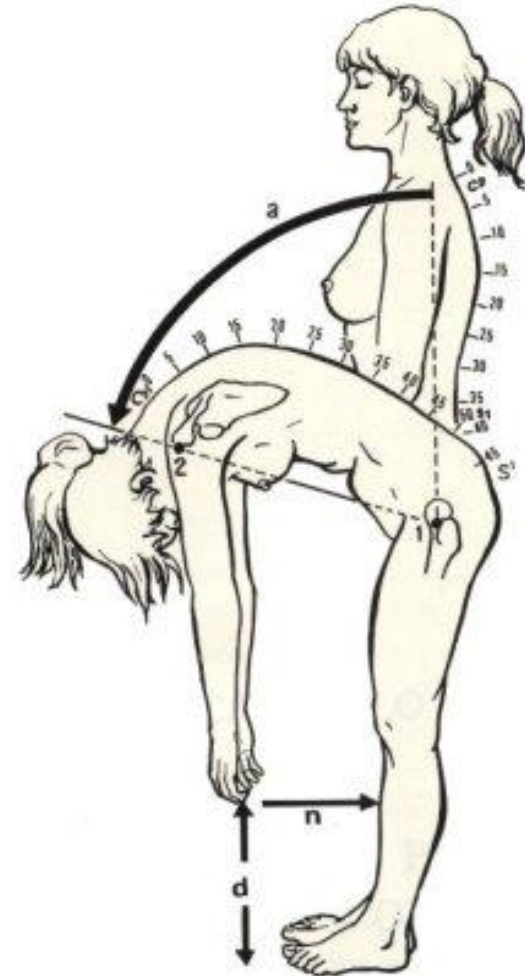
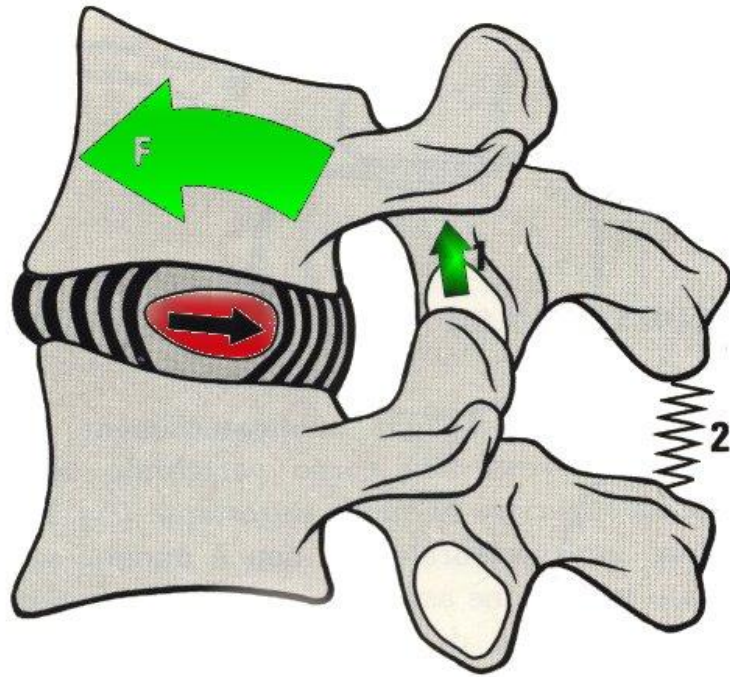
alle
sollecitazioni
di
compressione



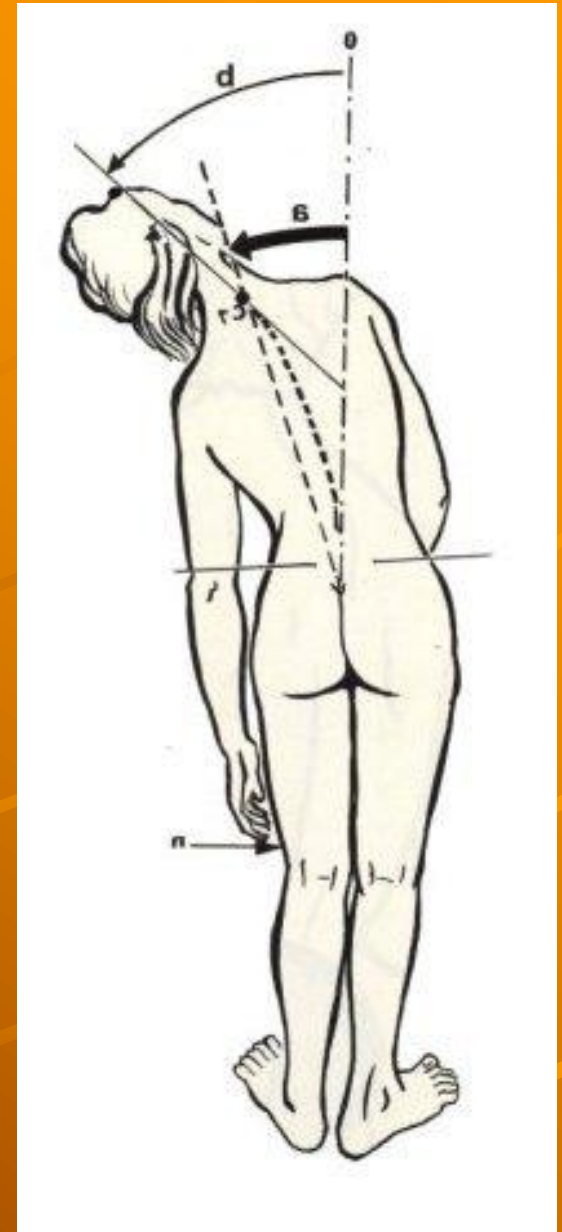
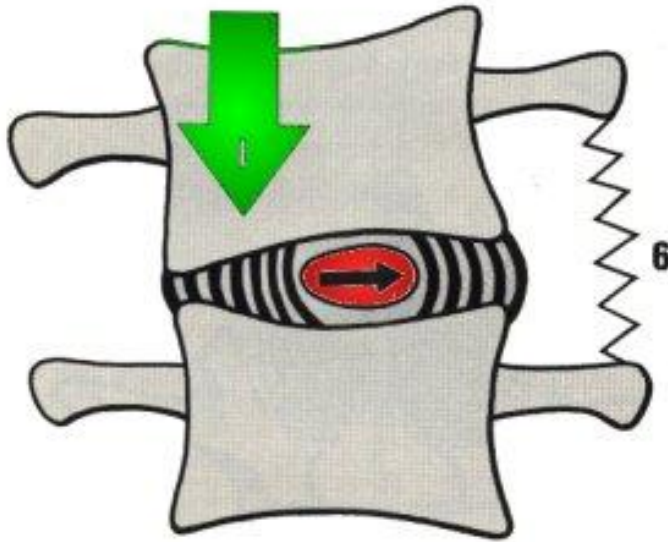
L'estensione del rachide



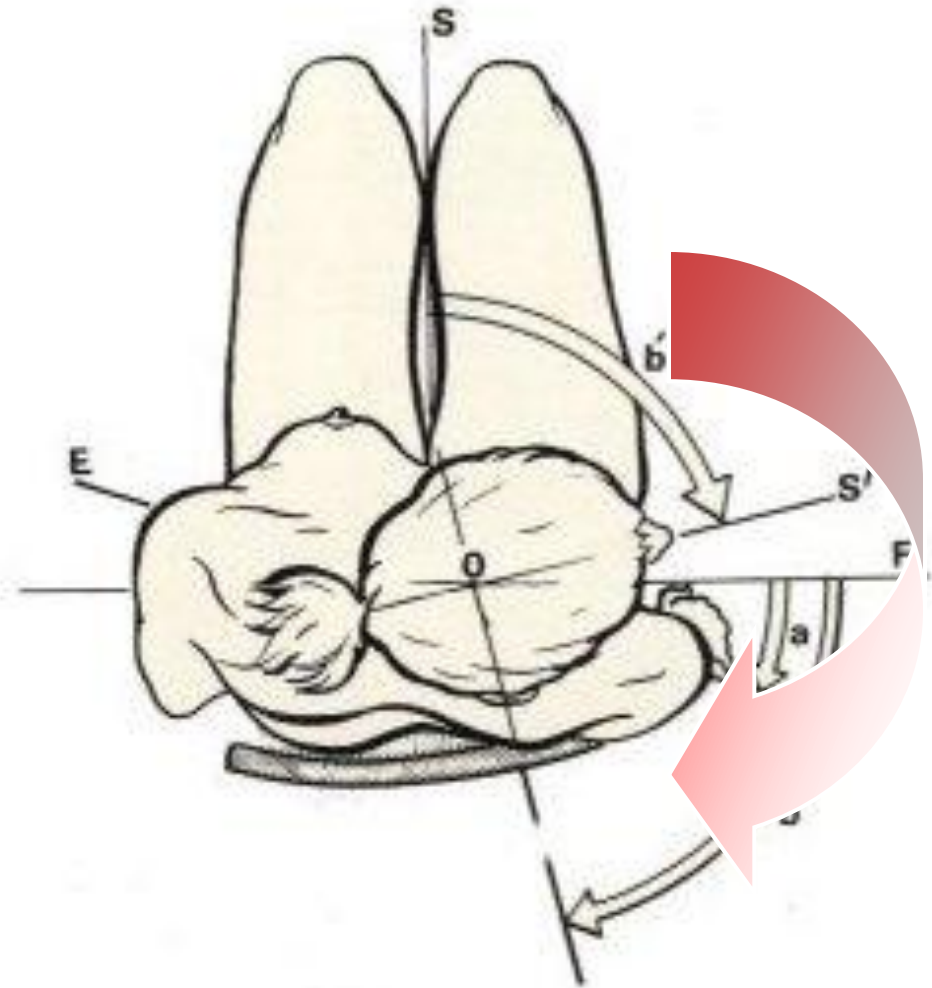
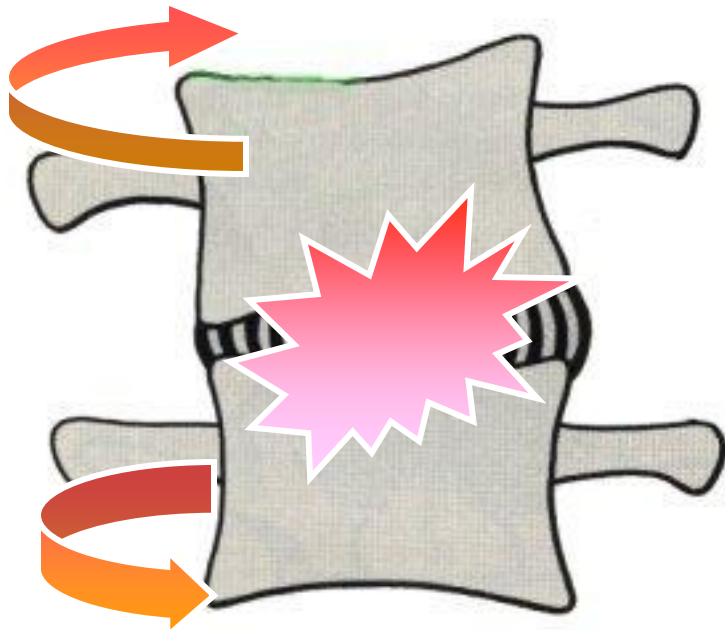
La flessione del rachide



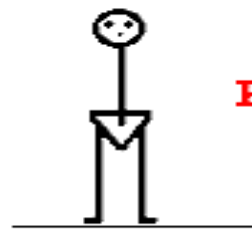
L'inclinazione del rachide



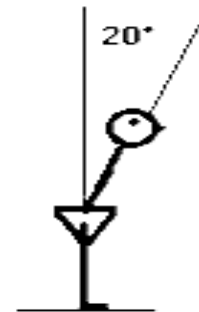
Rotazione del rachide



Peso rilevato su L5-S1 per un soggetto di 75 Kg in differenti posture



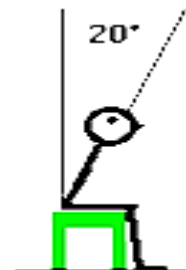
Kg 100



Kg 150



Kg 140



Kg 185



Kg 60



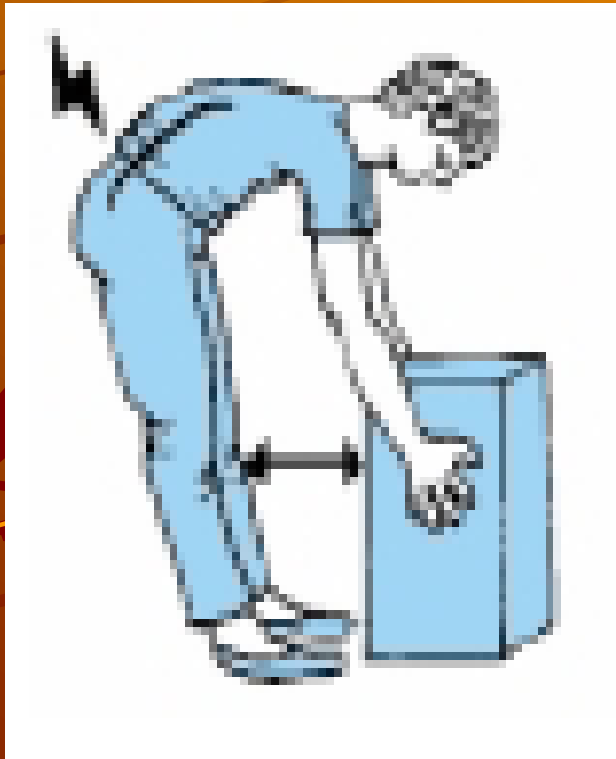
Kg 70



Kg 35

Se si deve sollevare un oggetto

no



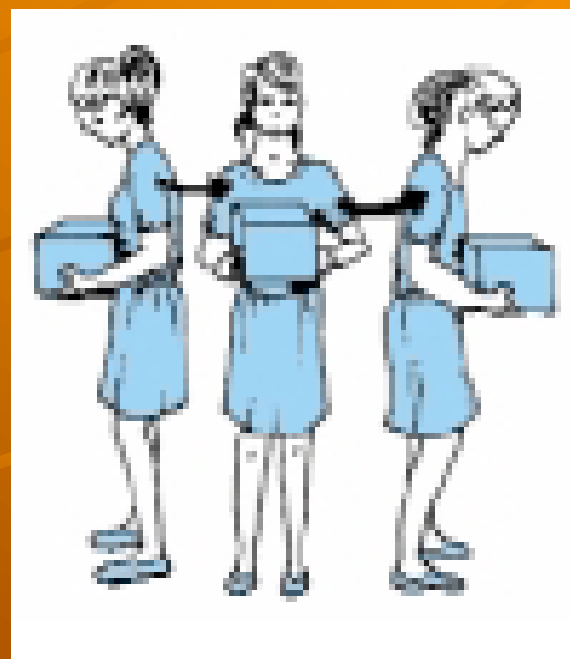
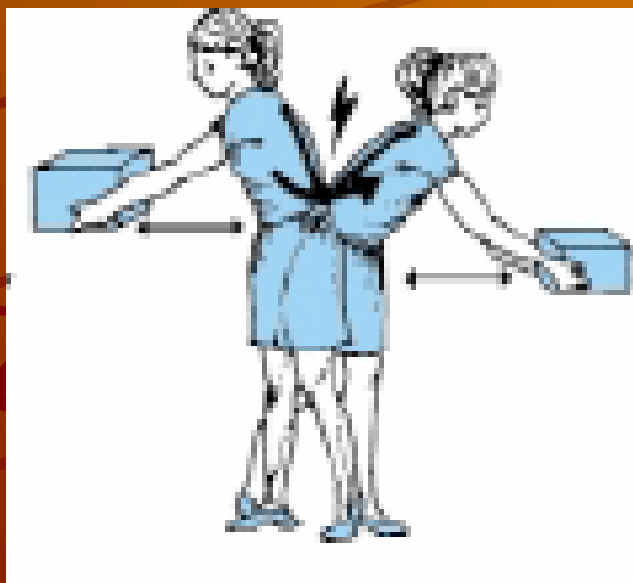
sì



se si devono spostare oggetti

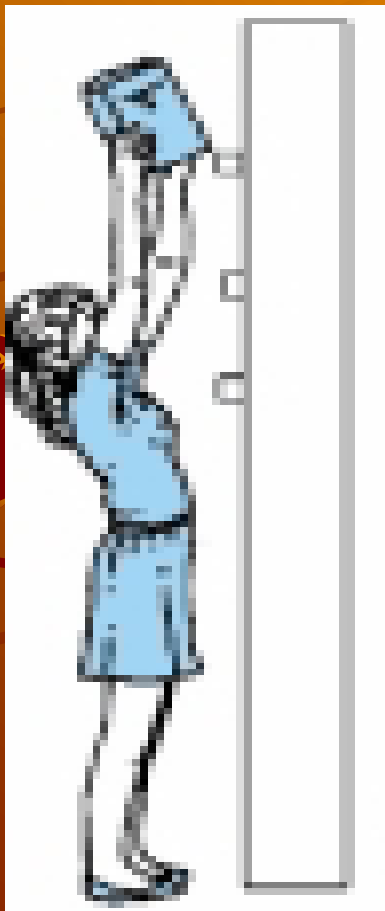
no

si

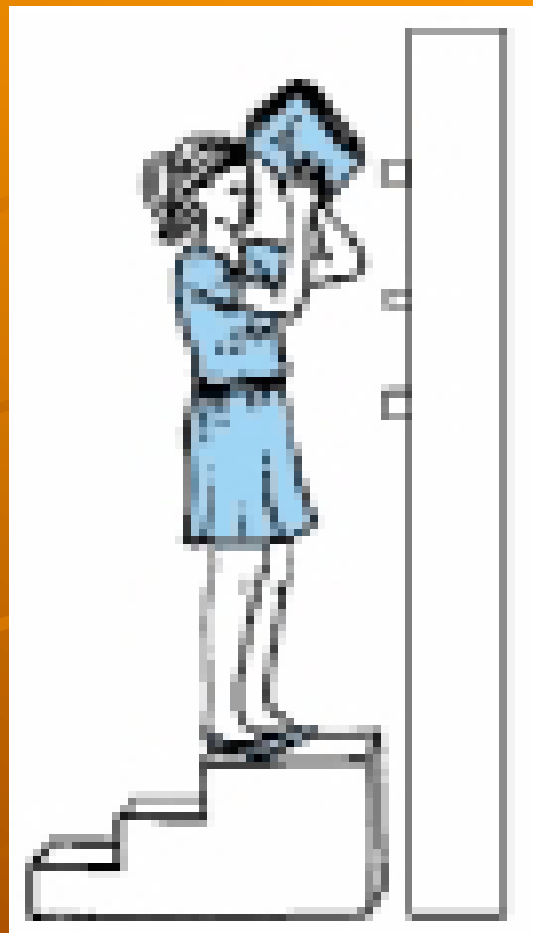


Se si deve porre in alto un oggetto

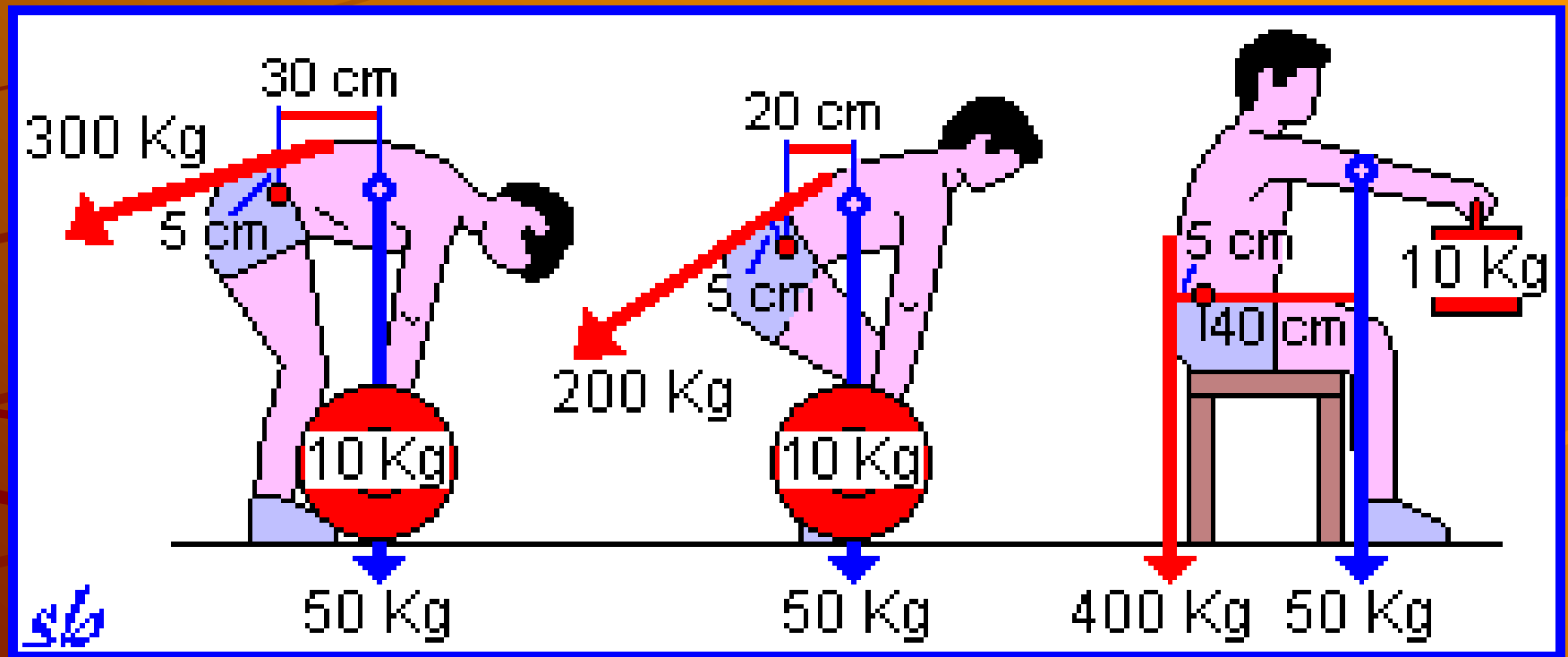
no



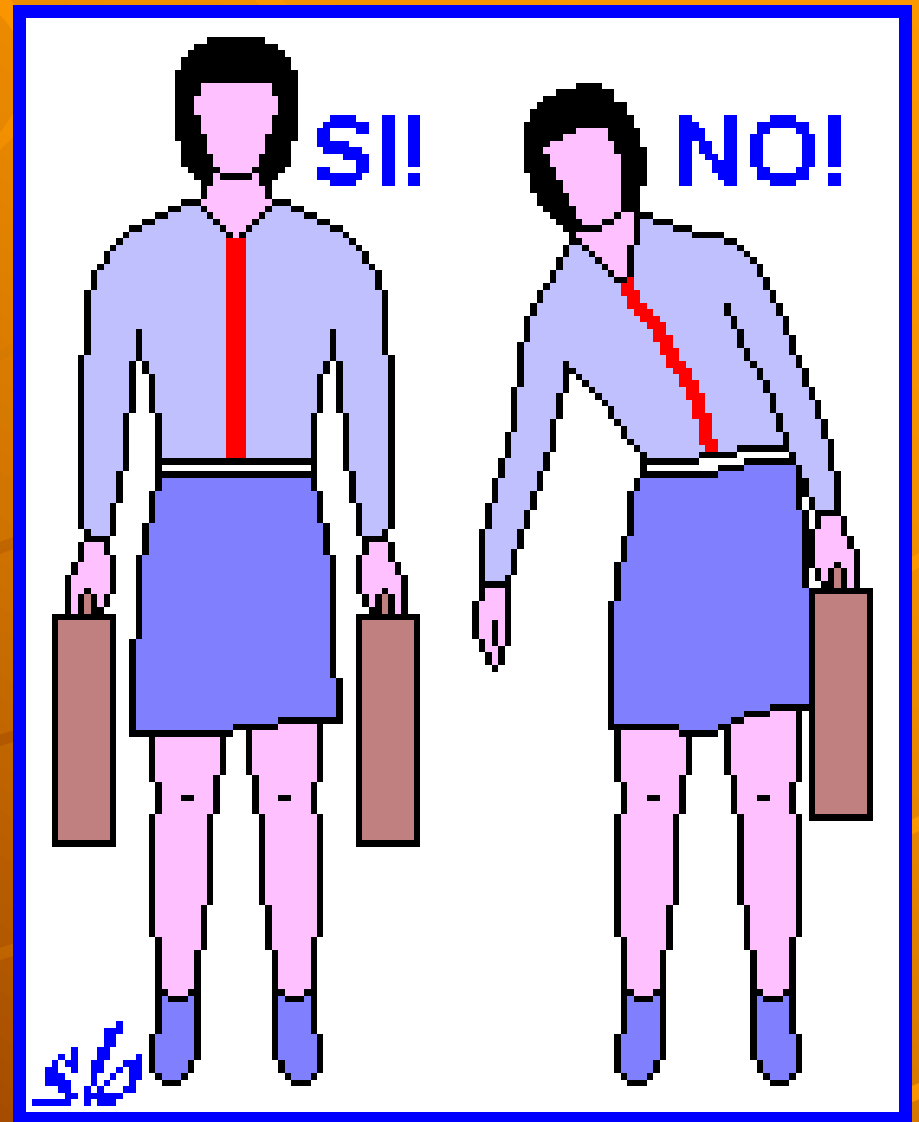
sì



Pressioni sulle vertebre lombari in varie posizioni di spostamento di un carico



**Modalità corretta
per trasportare
pesi con le
braccia**



Pressione sulle vertebre lombari nel trasporto di un carico

