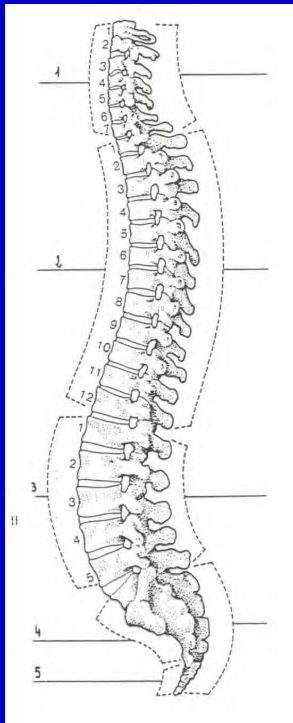


# Colonna Vertebrale



A cura di Alberto Di Santolo

Robert Maigne, nel suo libro definisce il “mal di schiena” male del secolo, ne soffre infatti il 90% della popolazione adulta

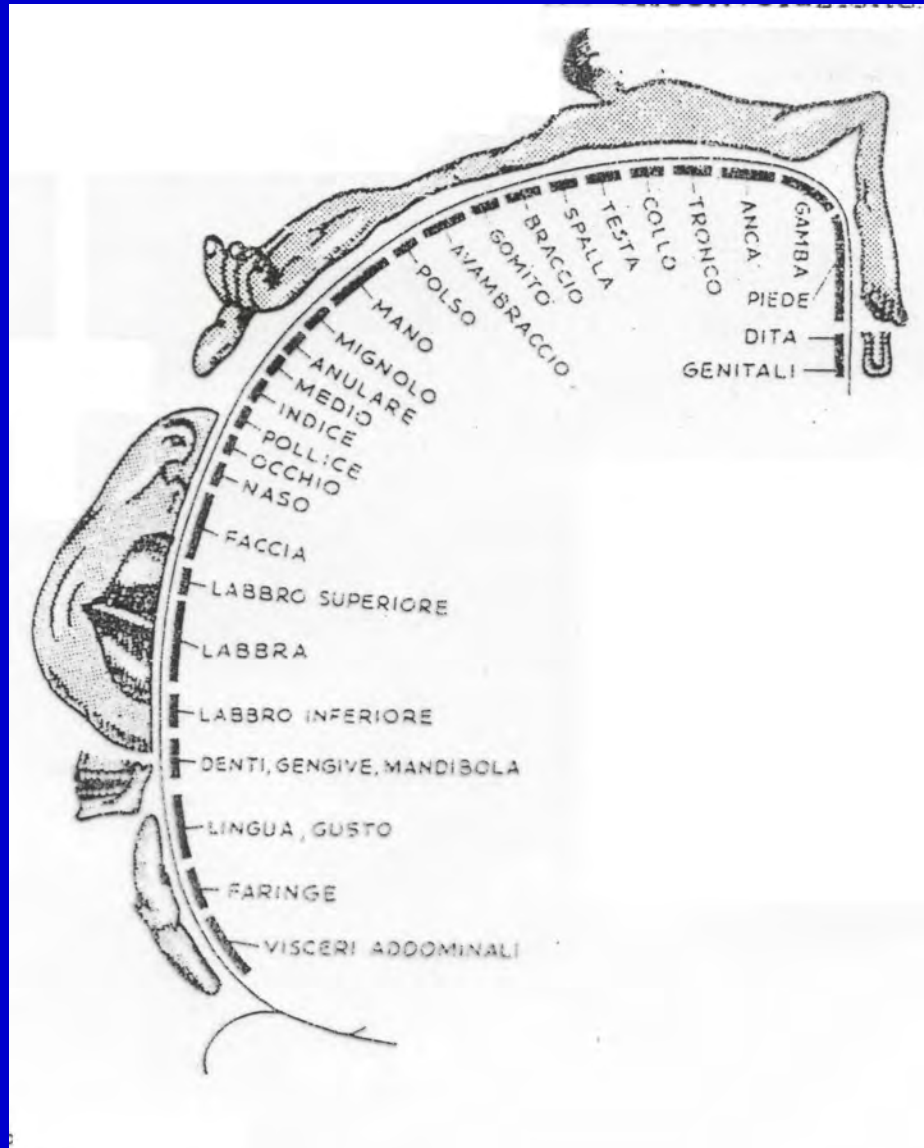
La vita sedentaria, le posizioni di lavoro attuali, statiche e ripetitive, lo stress, il sovrappeso, la ricerca di risultati esasperati nello sport per mezzo di allenamenti logoranti e traumatizzanti costituiscono tutti fattori di rischio, caratteristici dei tempi moderni.

L'elevata incidenza del mal di schiena è la malattia socialmente più costosa tra i 30 ed i 60 anni, sia per l'enorme numero di giornate lavorative perse sia per il costo elevato delle cure.

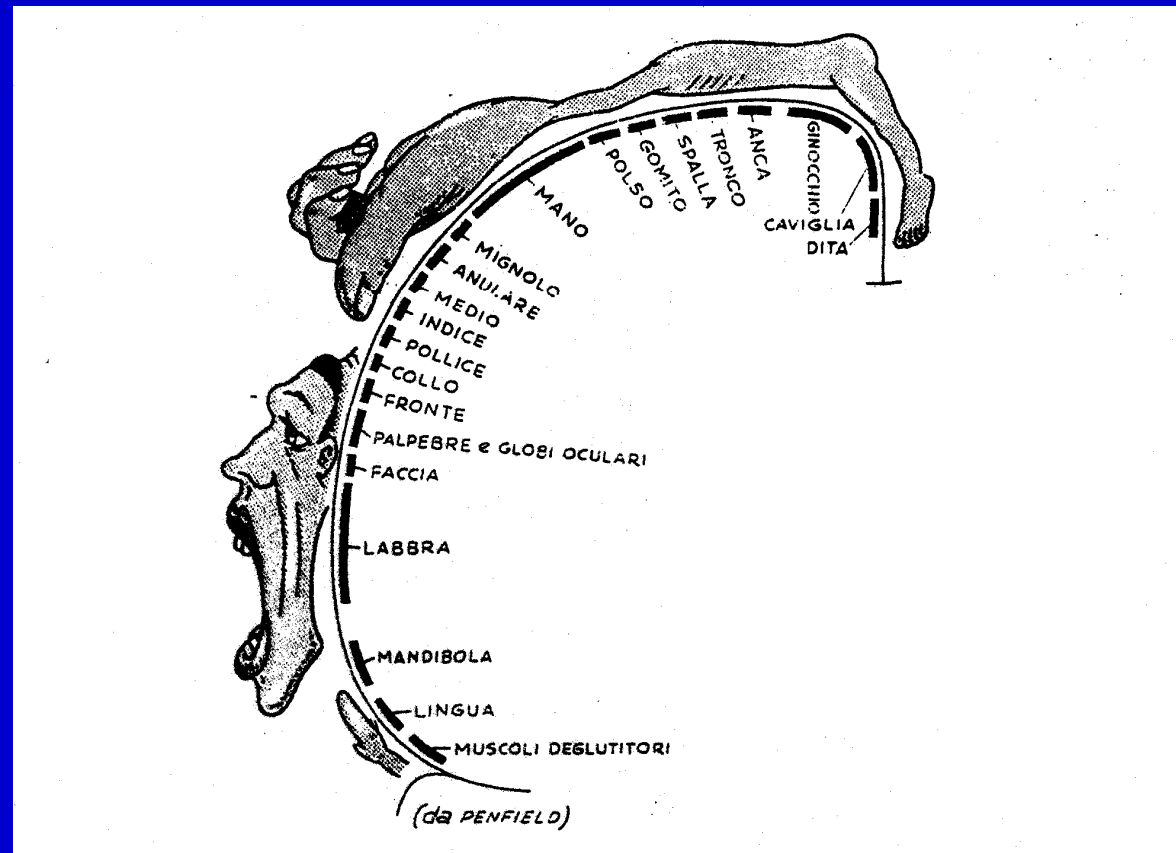
Tali sofferenze possono essere combattute con un'efficace azione educativa e preventiva.

**Ogni comportamento  
è l'espressione  
di una funzione cerebrale**

# LA CORTECCIA SENSITIVA

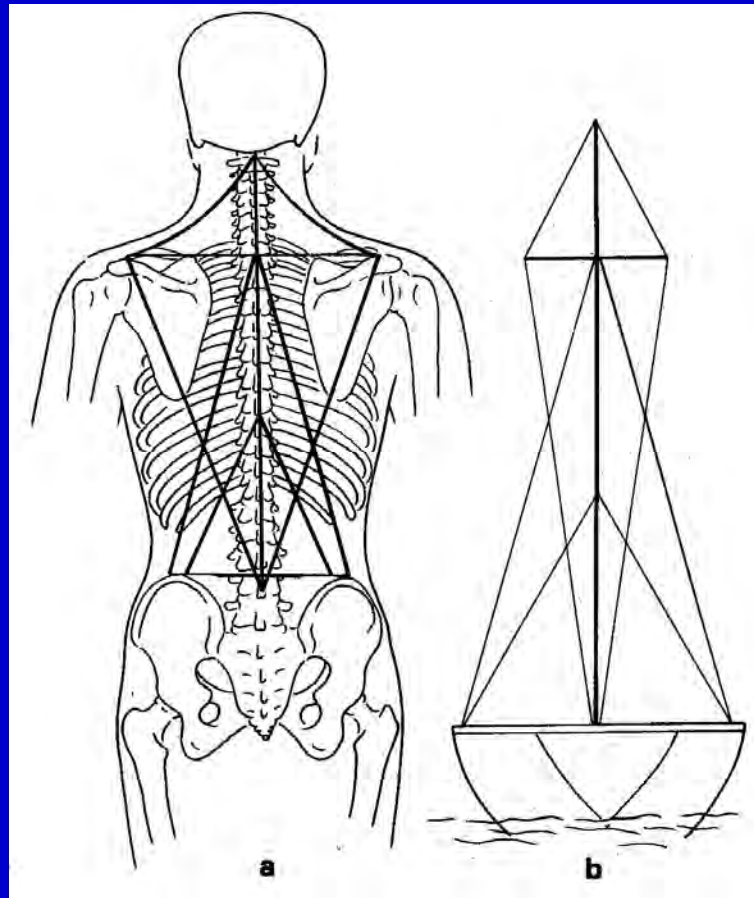


# LA CORTECCIA MOTORIA





# “EQUILIBRIO delle SARTIE”



OTTIMIZZAZIONE

della

CONDUZIONE

della

“NAVE”

# LA COLONNA VERTEBRALE

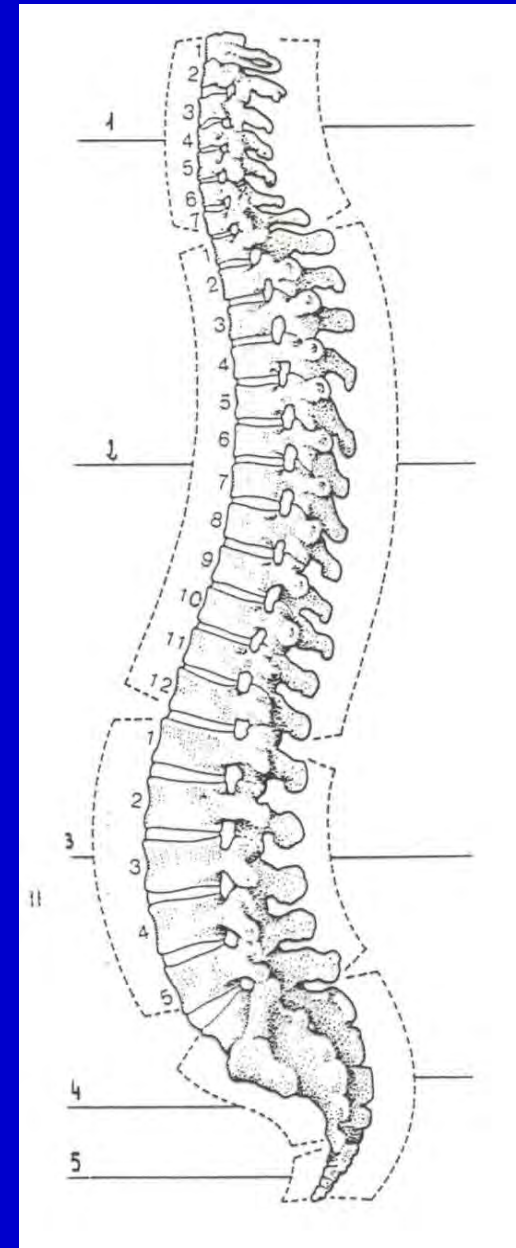
1) Lordosi cervicale C1-C7

2) Cifosi dorsale D1-D12

3) Lordosi lombare L1-L5

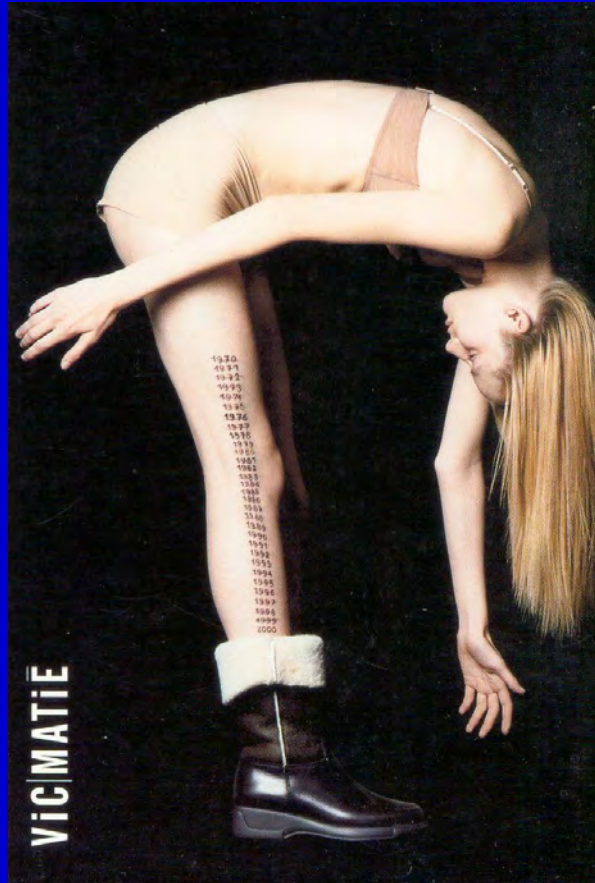
4) Cifosi sacrale

5) Coccige





# Come riconoscere una scoliosi



# CURVE FISILOGICHE DELLA COLONNA VERTEBRALE

## FORMAZIONE ed EVOLUZIONE



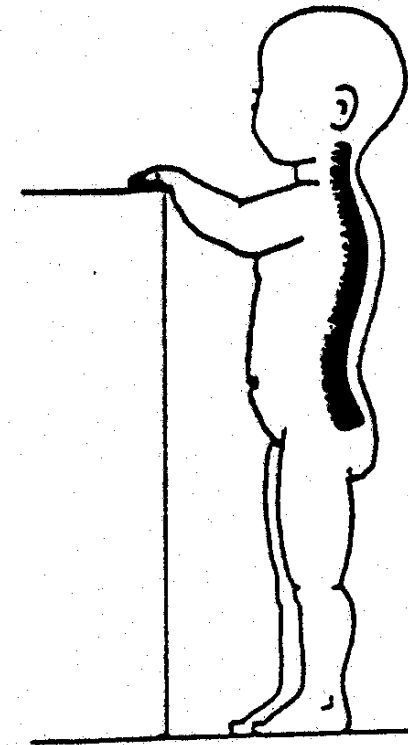
A

Prime settimane



B

6-8 settimane

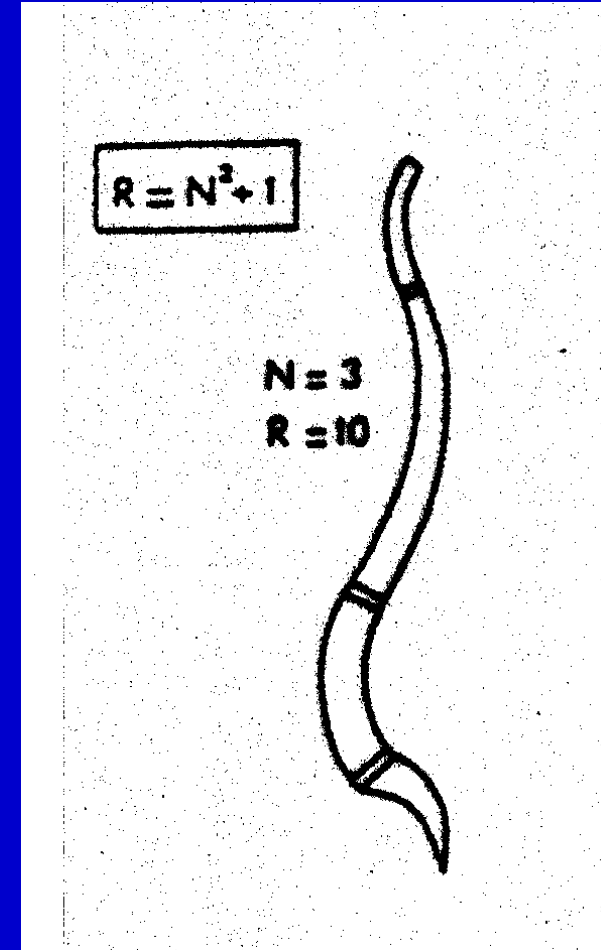


C

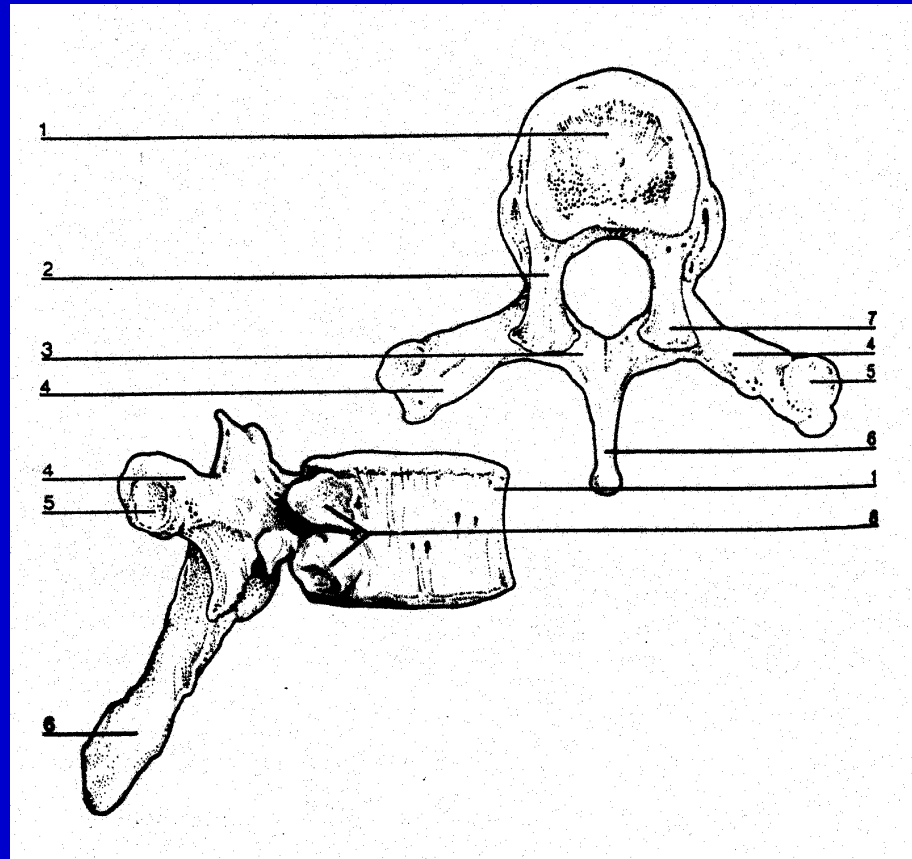
12-15 mesi

# La resistenza della colonna vertebrale

**N = numero  
delle curve**

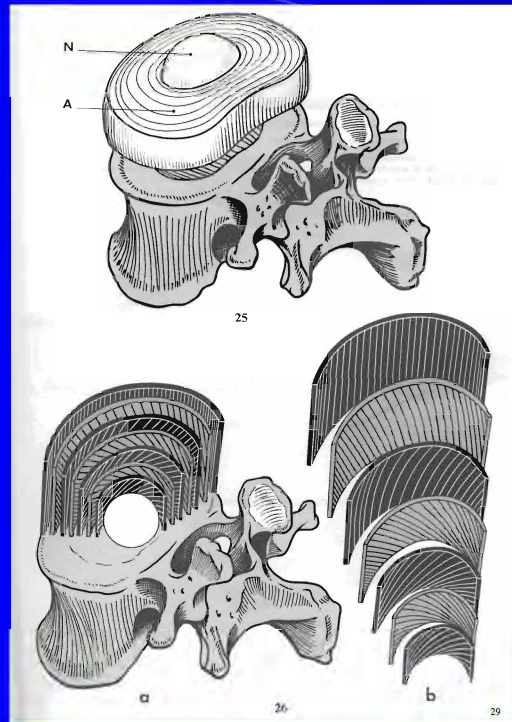


Le vertebre, ossa corte, pur differendo tra loro per forma e dimensione presentano caratteristiche comuni



#### Settima vertebra toracica

- (1) corpo
- (2) peduncolo
- (3) lamina
- (4) apofisi trasversa
- (5) faccetta articolare per la tuberosità delle coste
- (6) apofisi spinosa
- (7) apofisi articolare superiore
- (8) semifaccette articolari per la testa delle coste

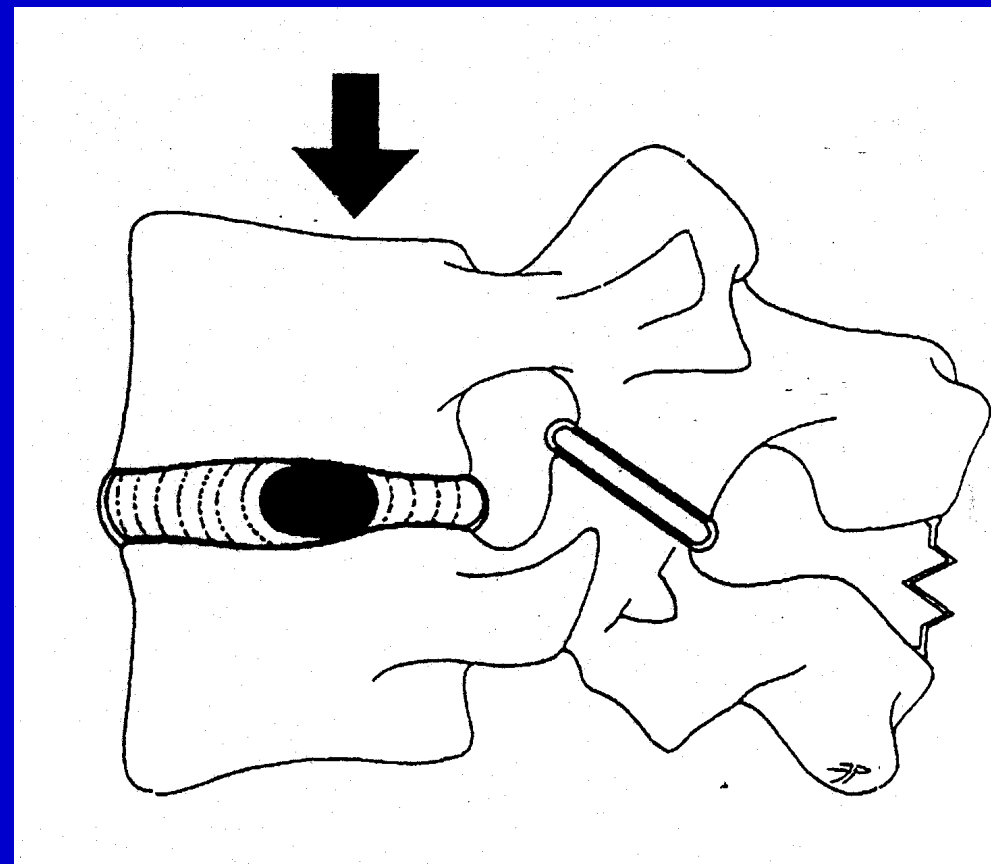
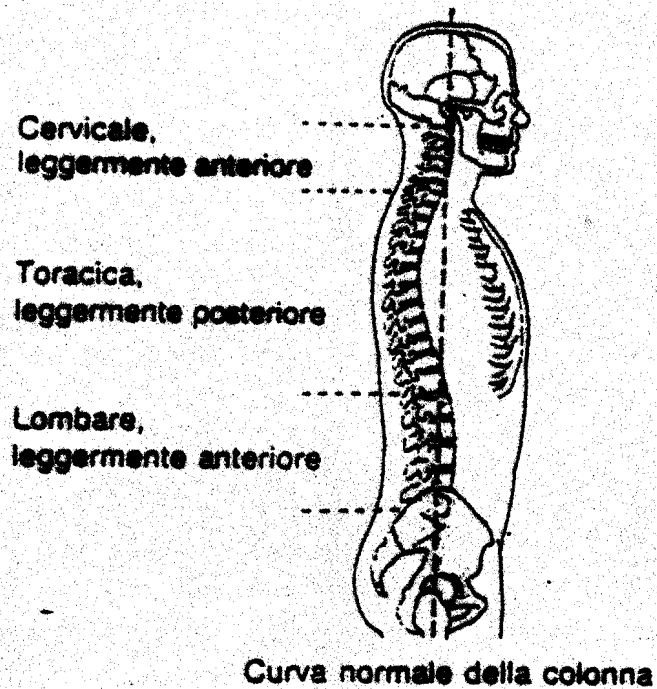


**NUCLEO  
POLPOSO**

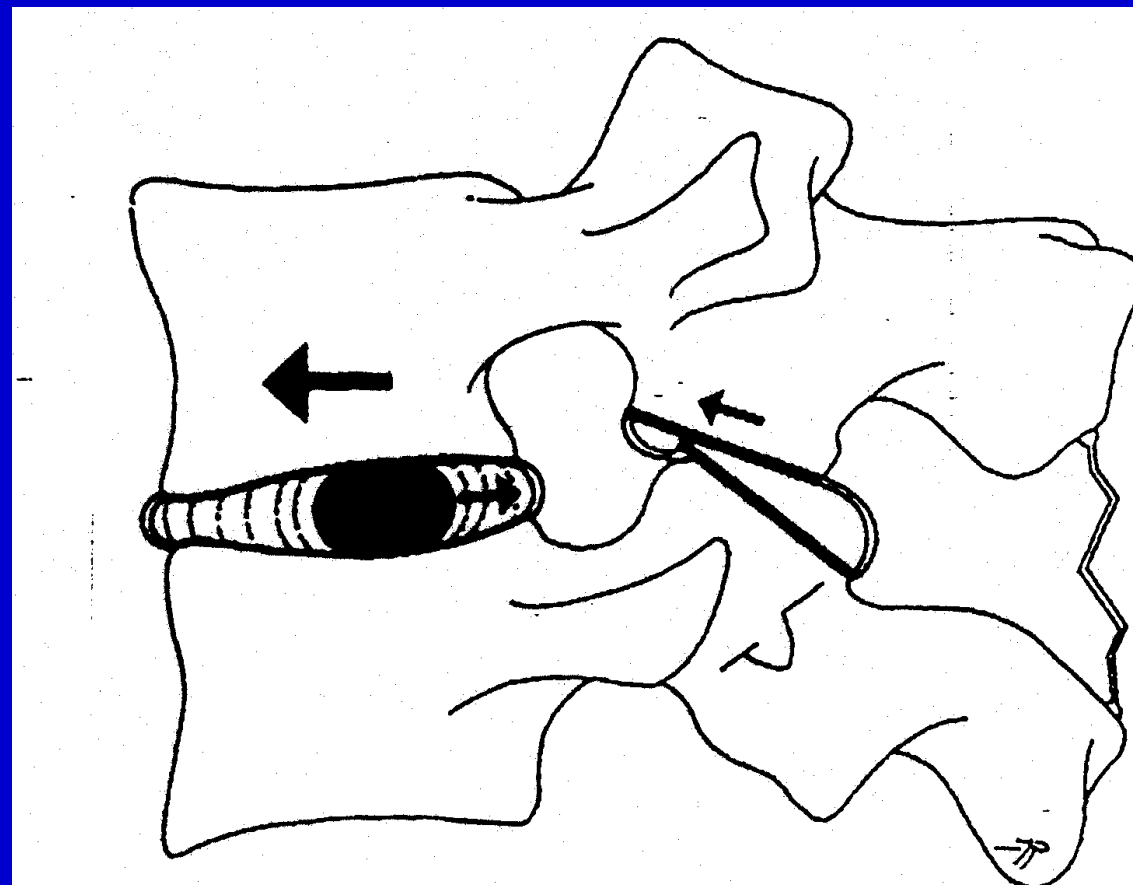
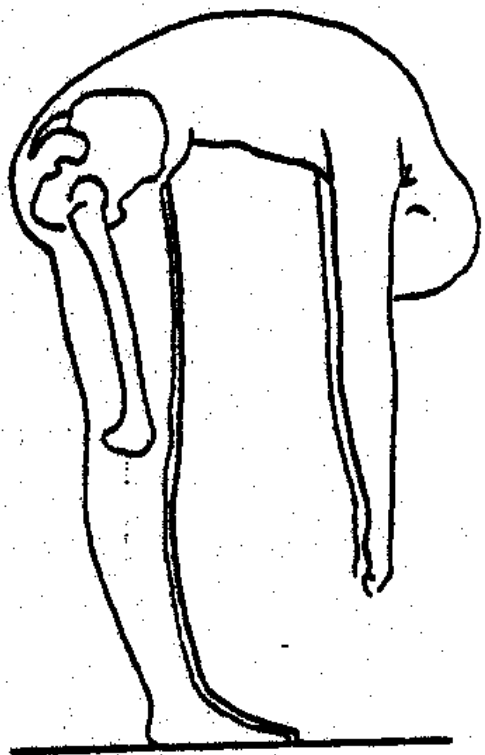
**&**

**ANELLO  
FIBROSO**

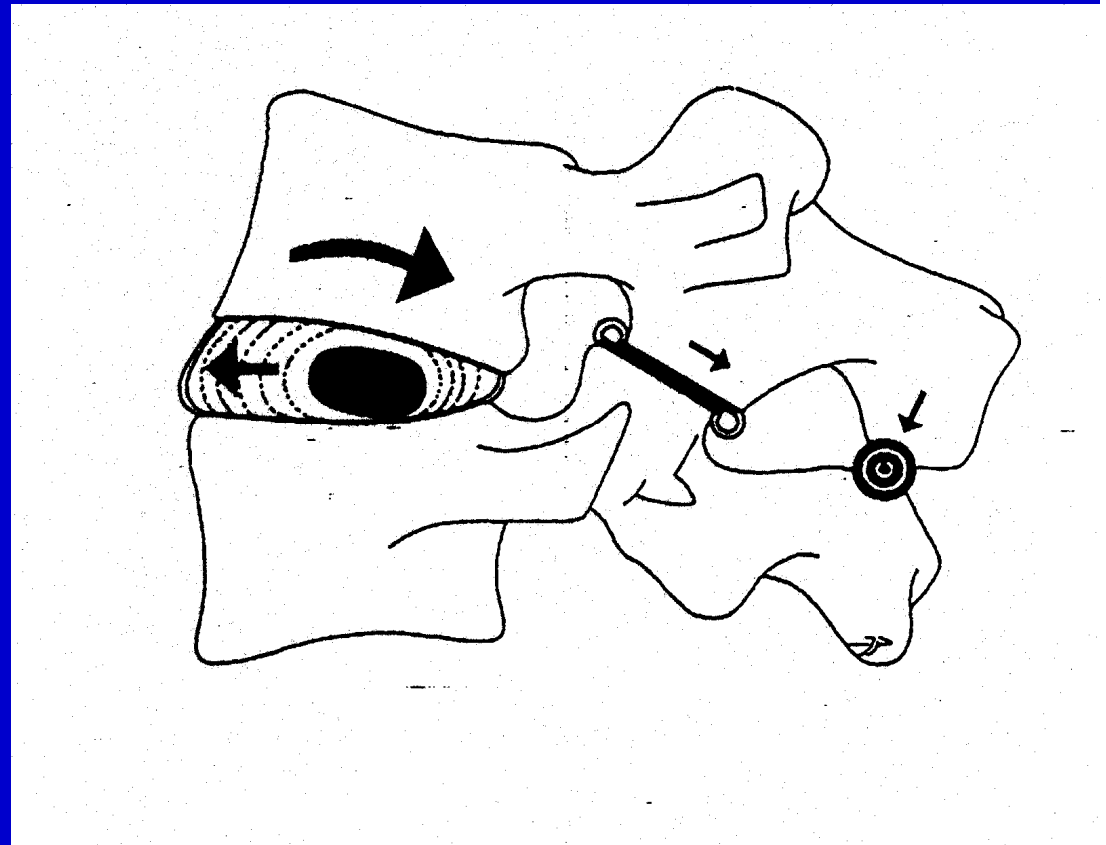
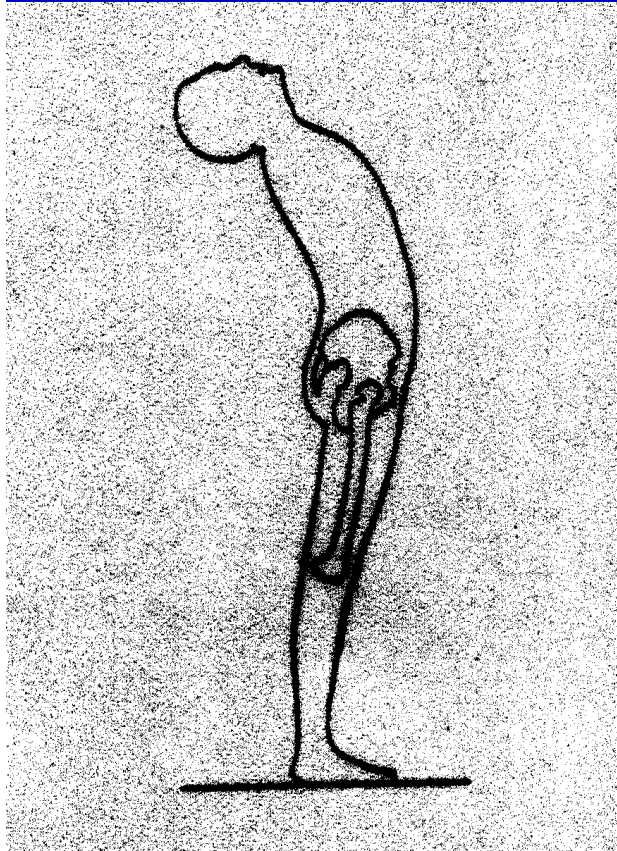
# La neutralita'



# La flessione

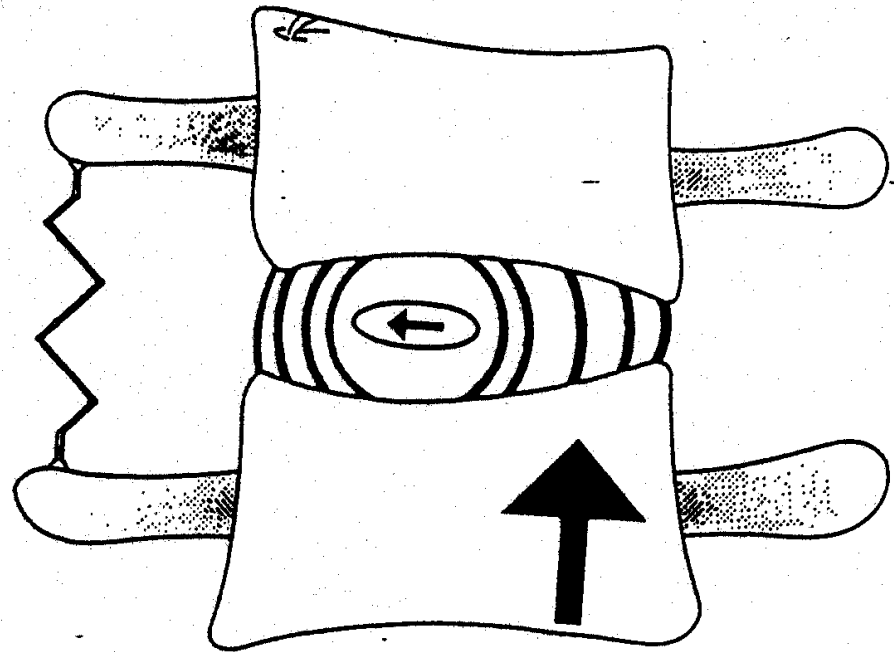
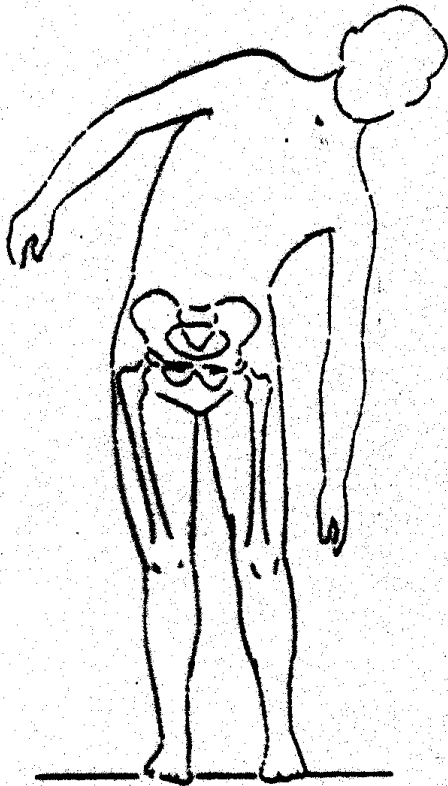


# L'estensione

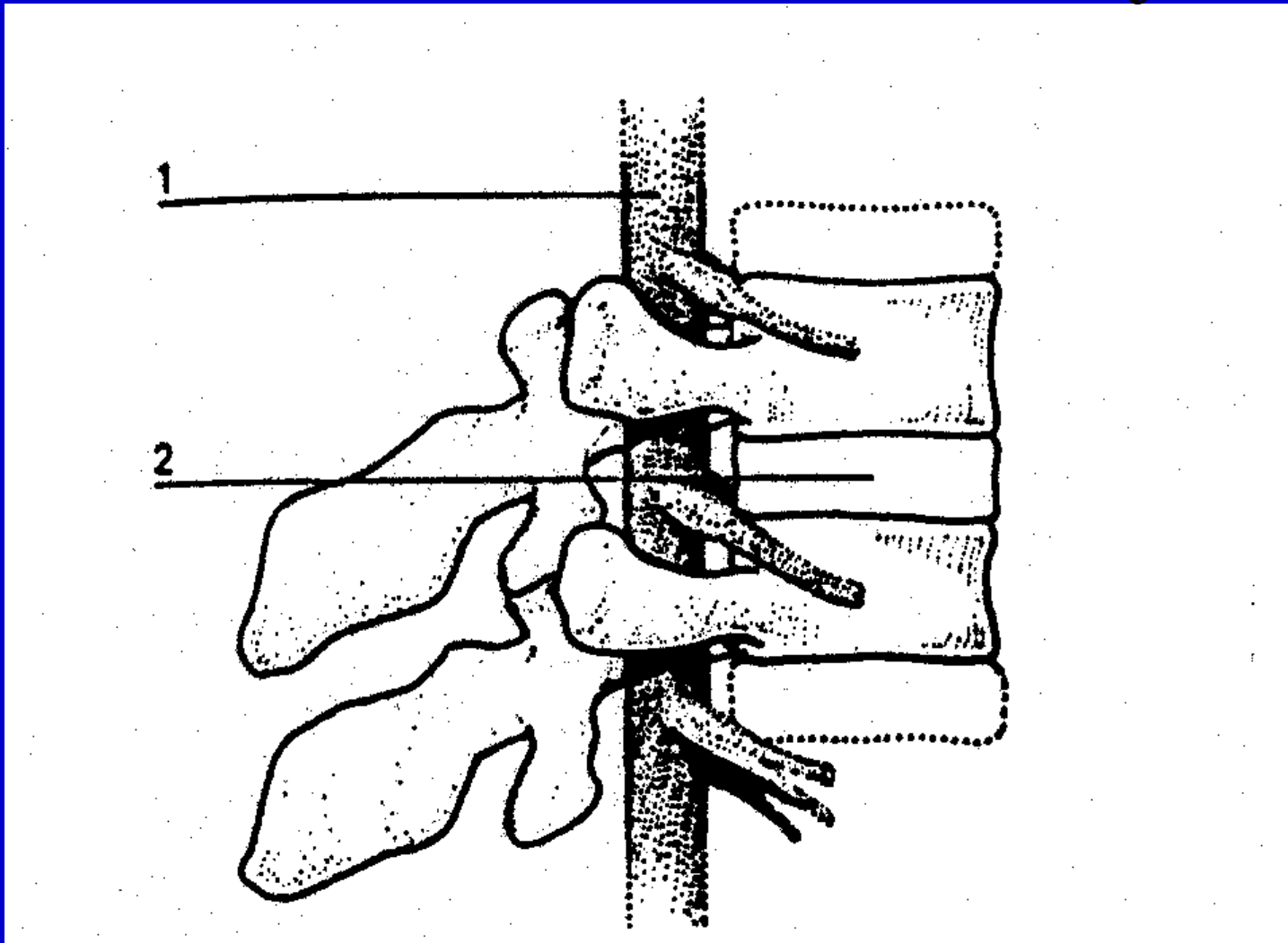




# L'inclinazione laterale



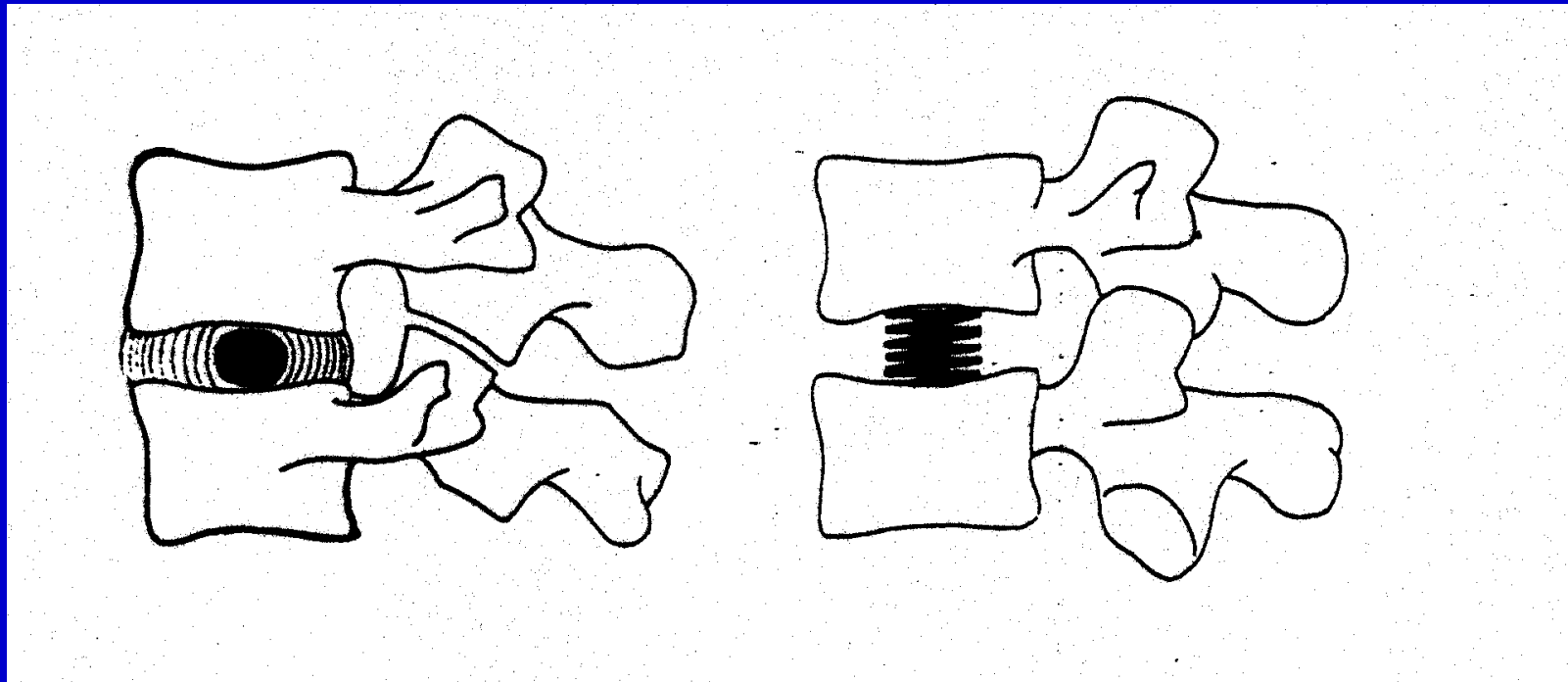
# L'organizzazione di due vertebre



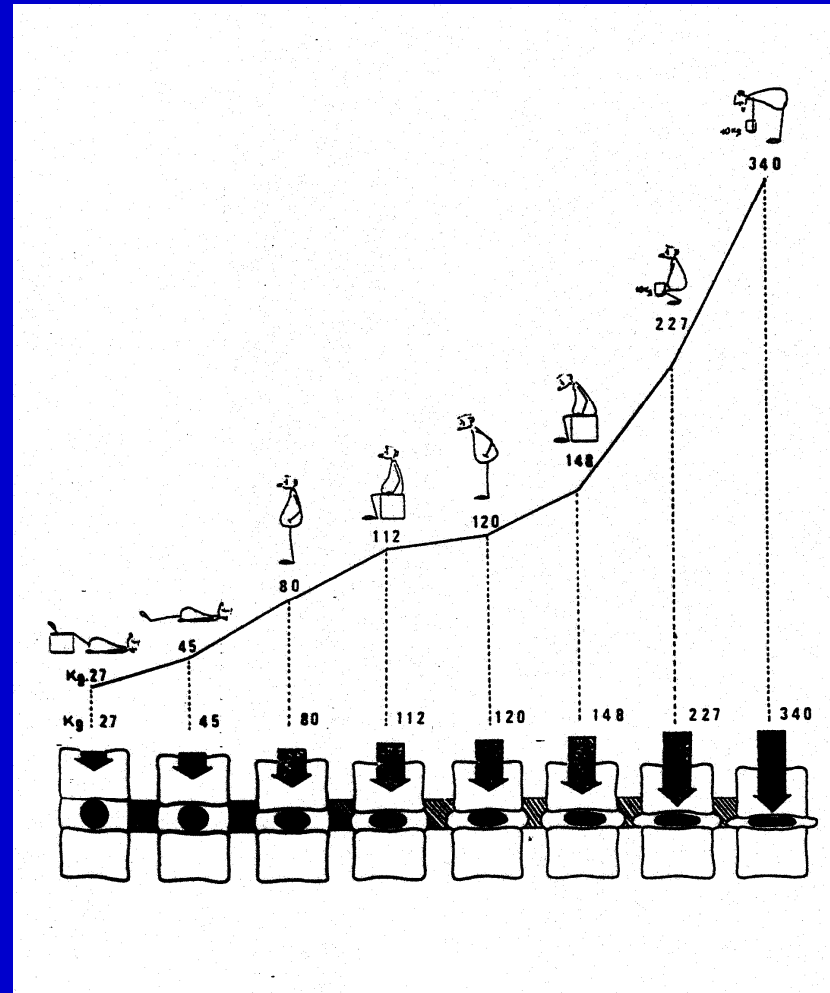
**1) Midollo spinale**

**2) Disco intervertebrale**

# Il disco intervertebrale



# Le pressioni sui dischi intervertebrali



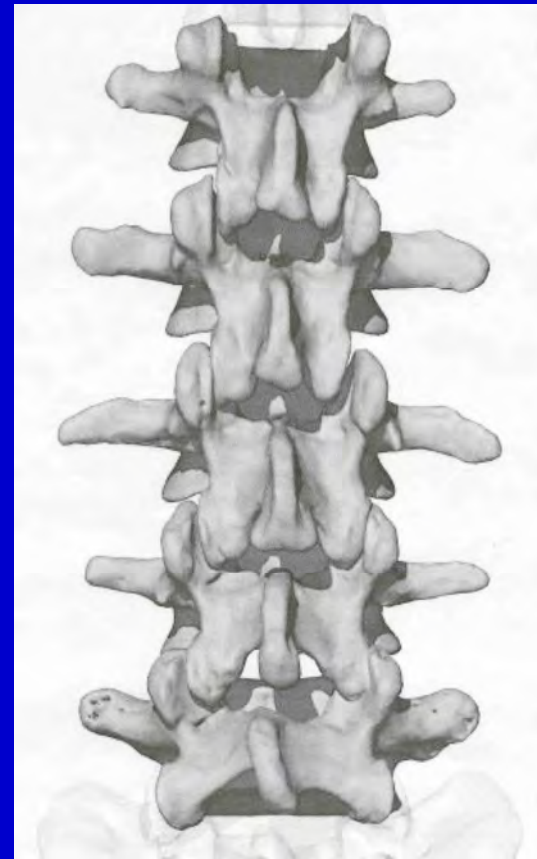
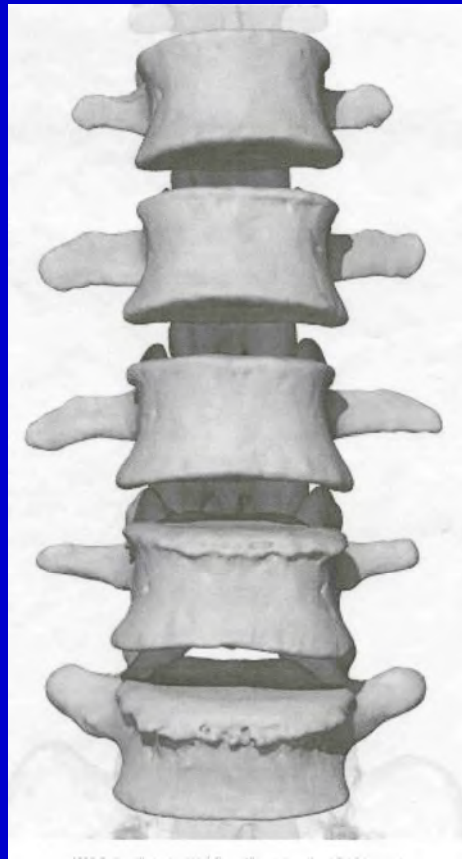
# TRATTO CERVICALE



# TRATTO DORSALE



# TRATTO LOMBARE



# FLESSO - ESTENSIONE

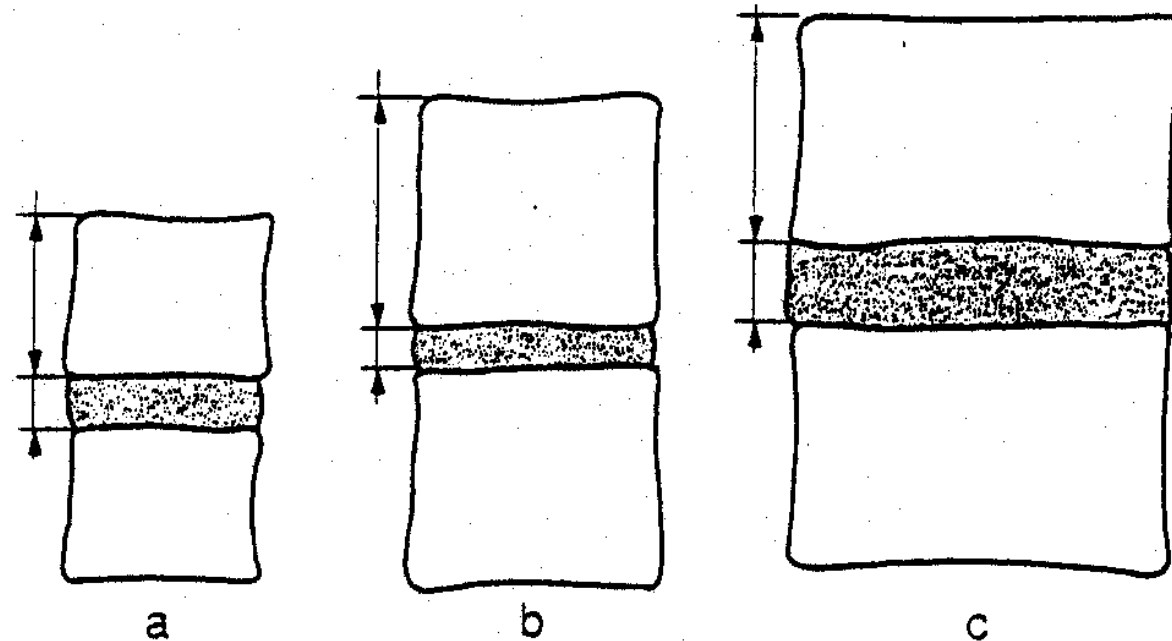
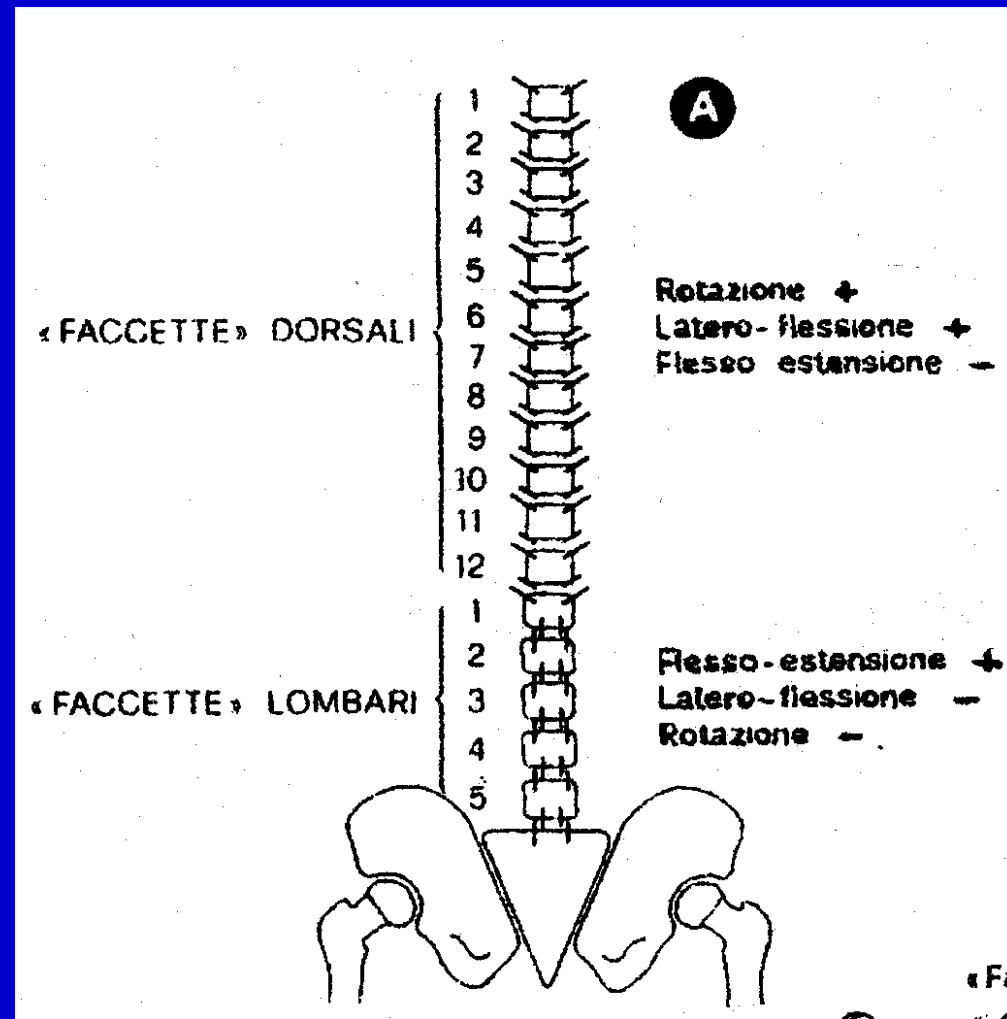
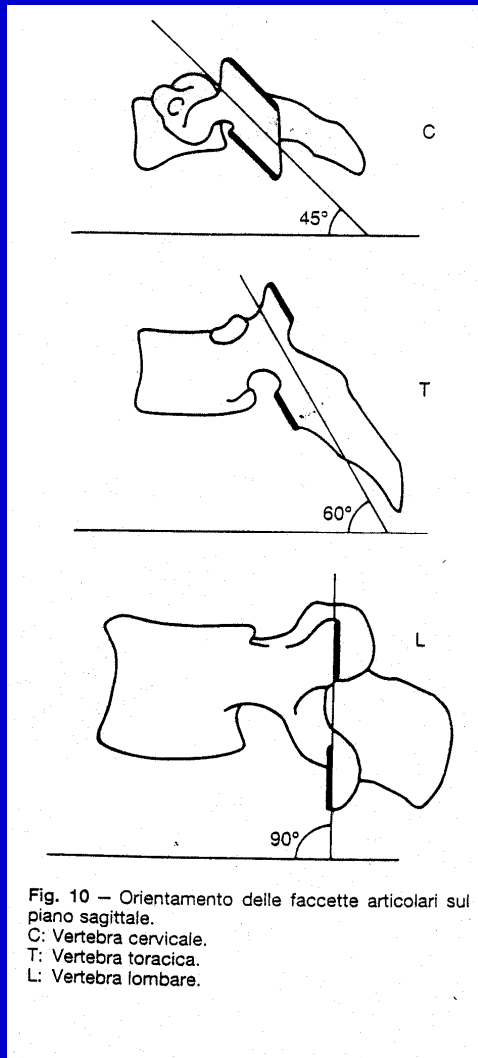


Fig. 12 – Altezza relativa dei dischi e dei corpi vertebrali:

- a) a livello cervicale: rapporto  $1/3$ ,
- b) a livello dorsale: rapporto  $1/6$ ,
- c) a livello lombare: rapporto  $1/3$ .



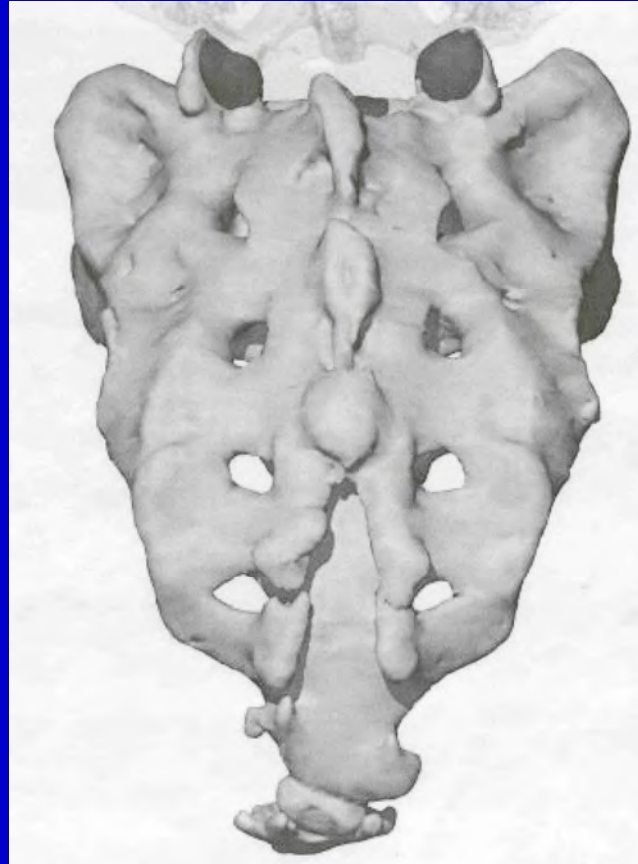
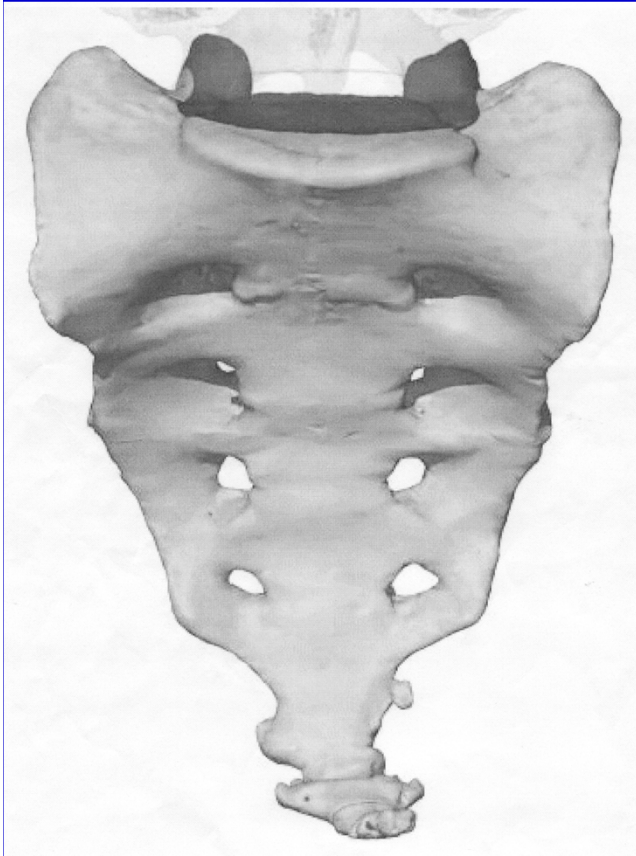
# TORSIONE e LATERO-FLESSIONE

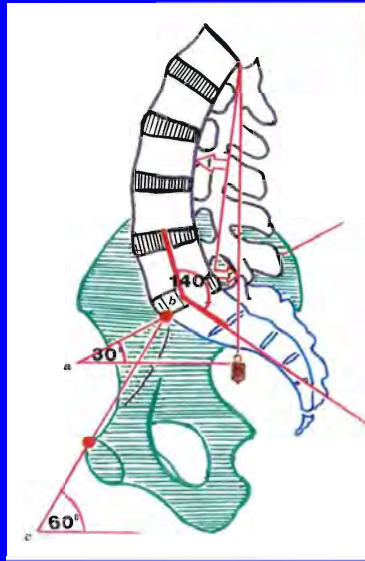


# SACRO

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λ



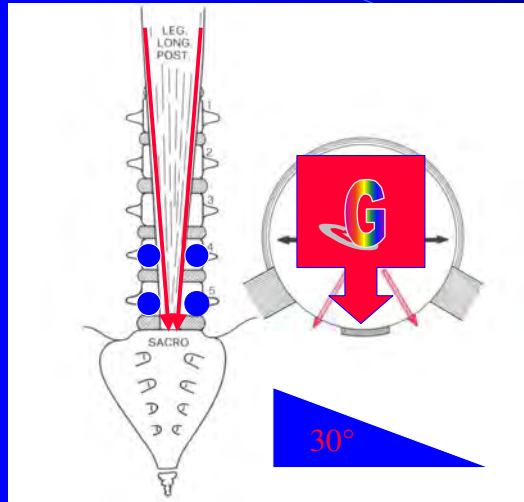


**PIATTO SACRALE**

**PENDIO**

**ESTREMAMENTE**

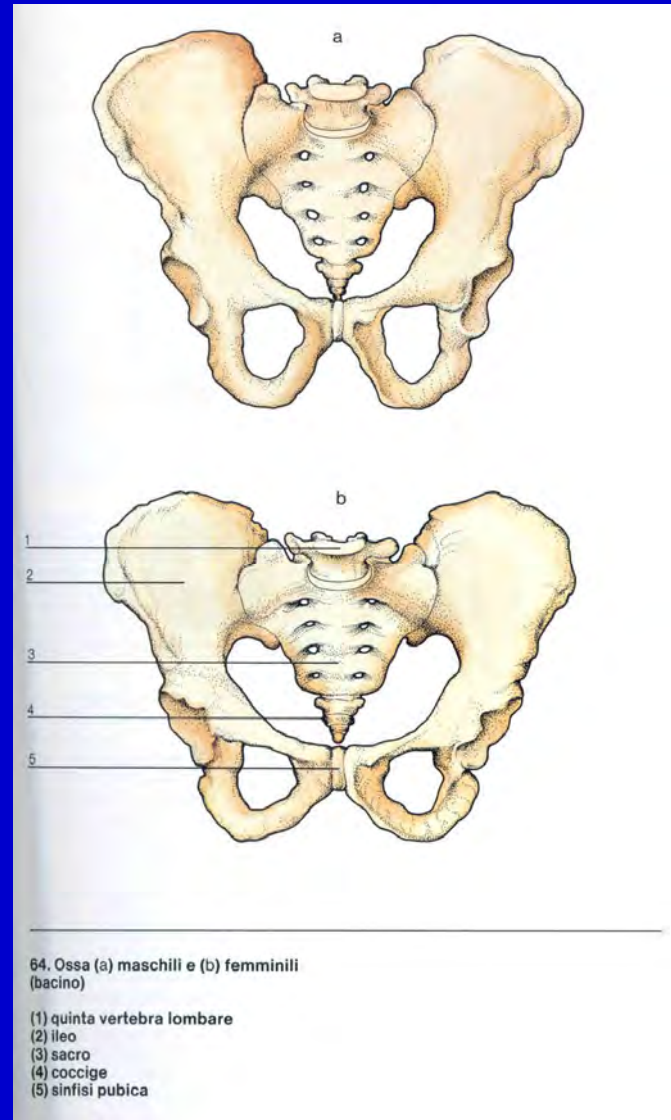
**PERICOLOSO**



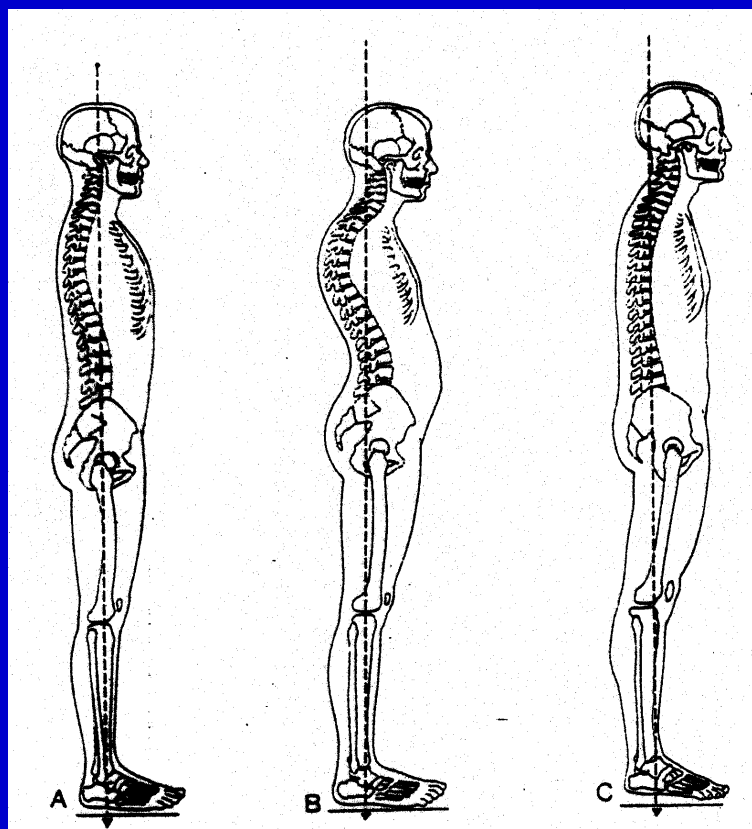
4

**fisiologiche**  
**negatività**

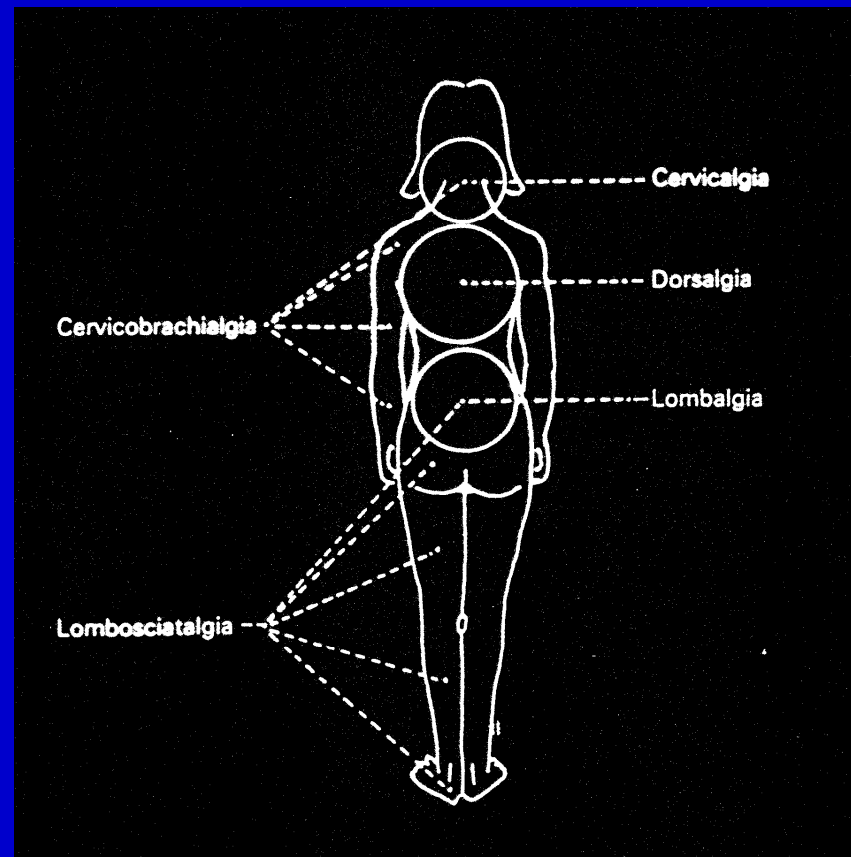
# BACINO



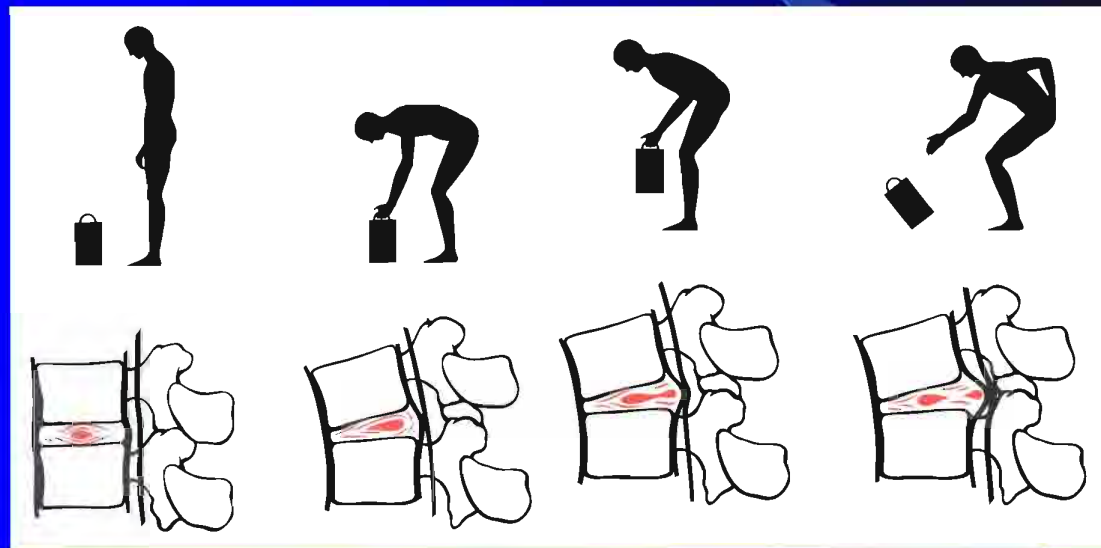
# ALLINEAMENTI POSTURALI



# Localizzazione delle algie vertebrali

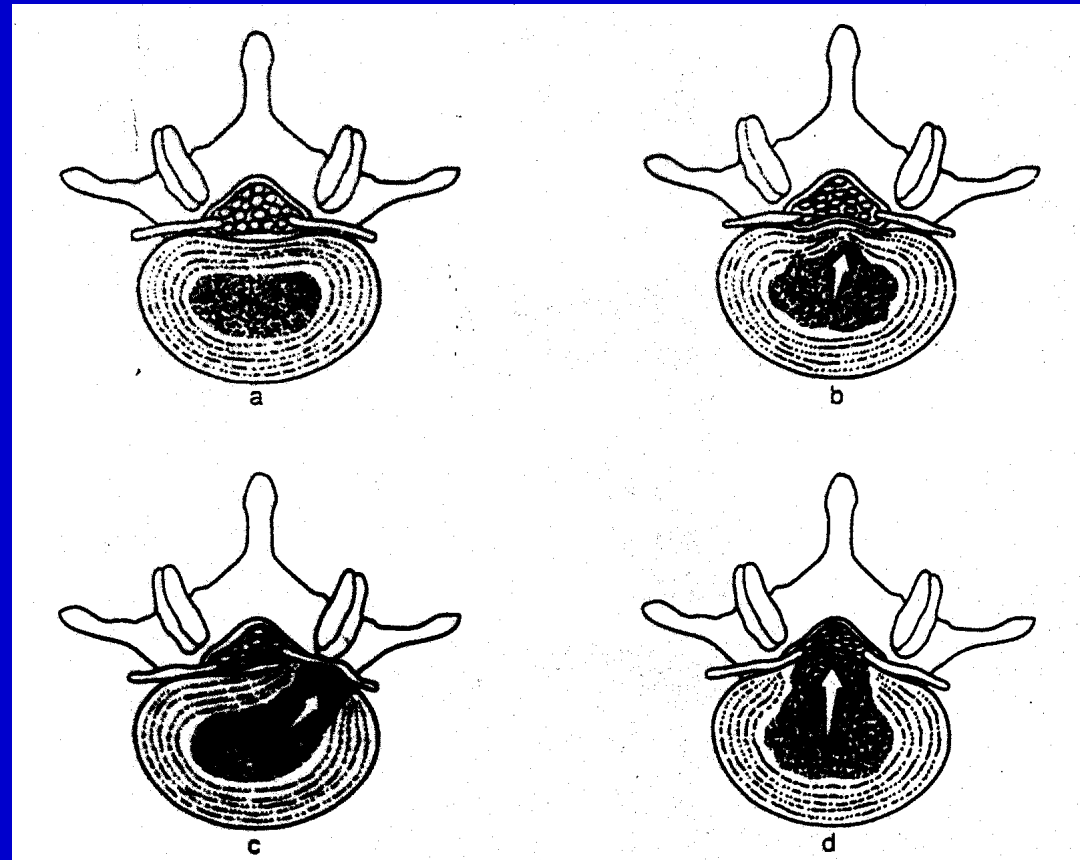


# Dinamica dell'ERNIAZIONE





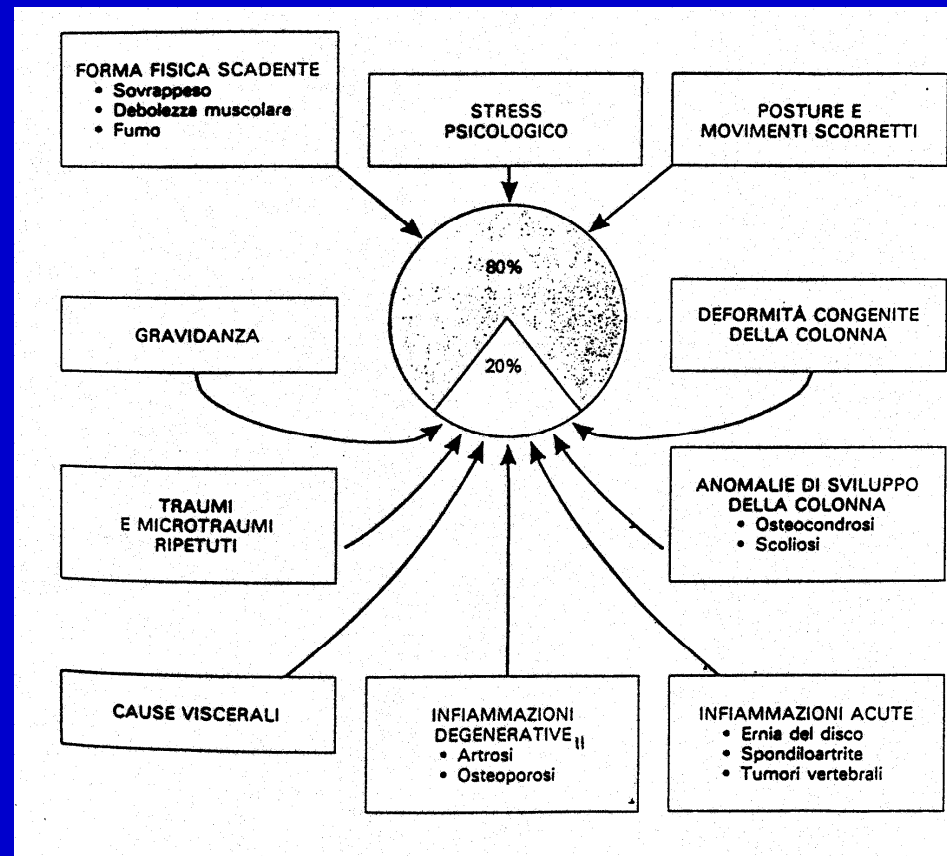
# ERNIE DISCALI



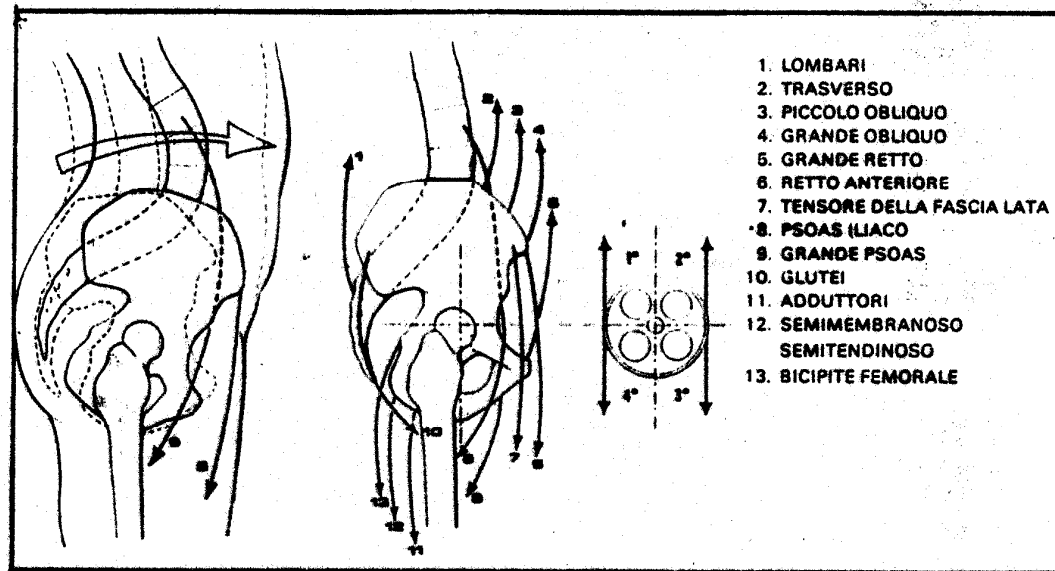
**a) Situazione normale – b) Semplice sporgenza**

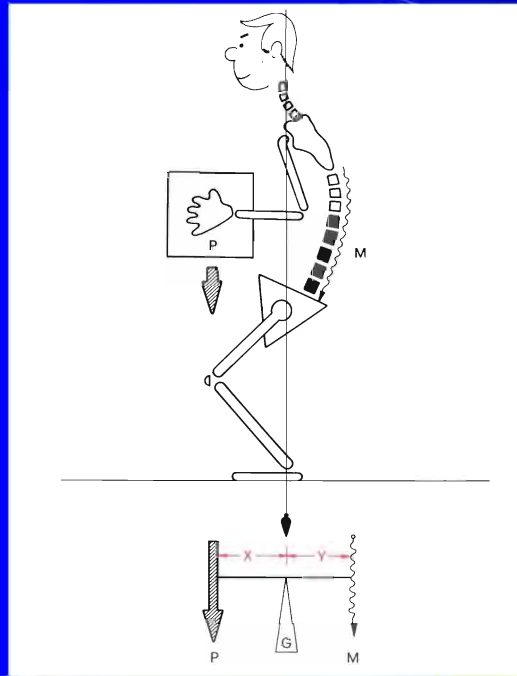
**c) E.D. postero laterale – d) E.D. mediana**

# LE CAUSE DEL DOLORE VERTEBRALE

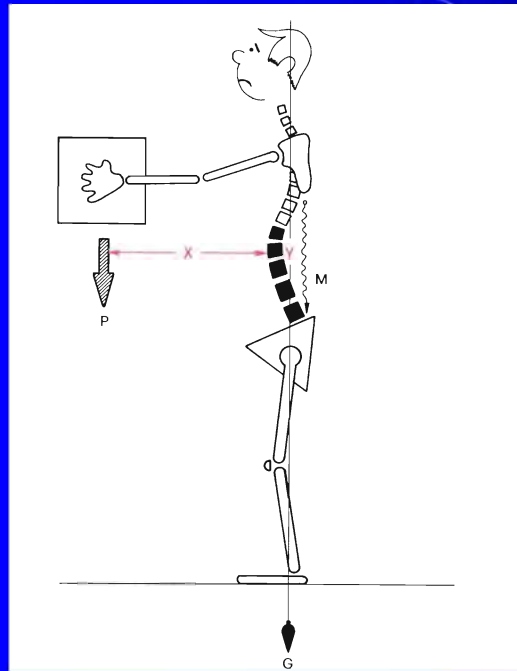


# EQUILIBRIO DEL BACINO

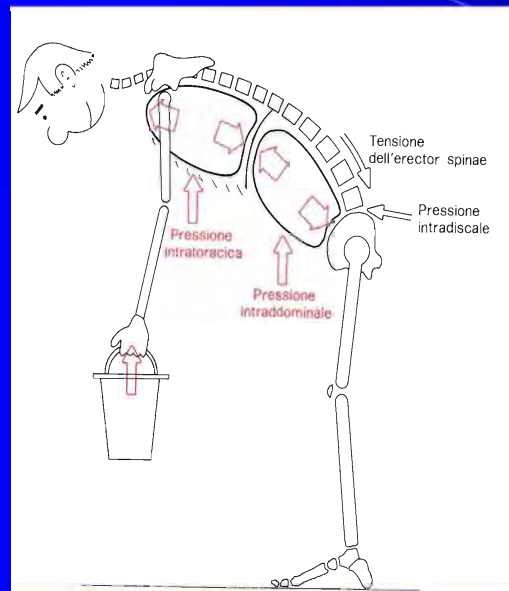




**MAI in  
"CIFOSI"  
lombare**



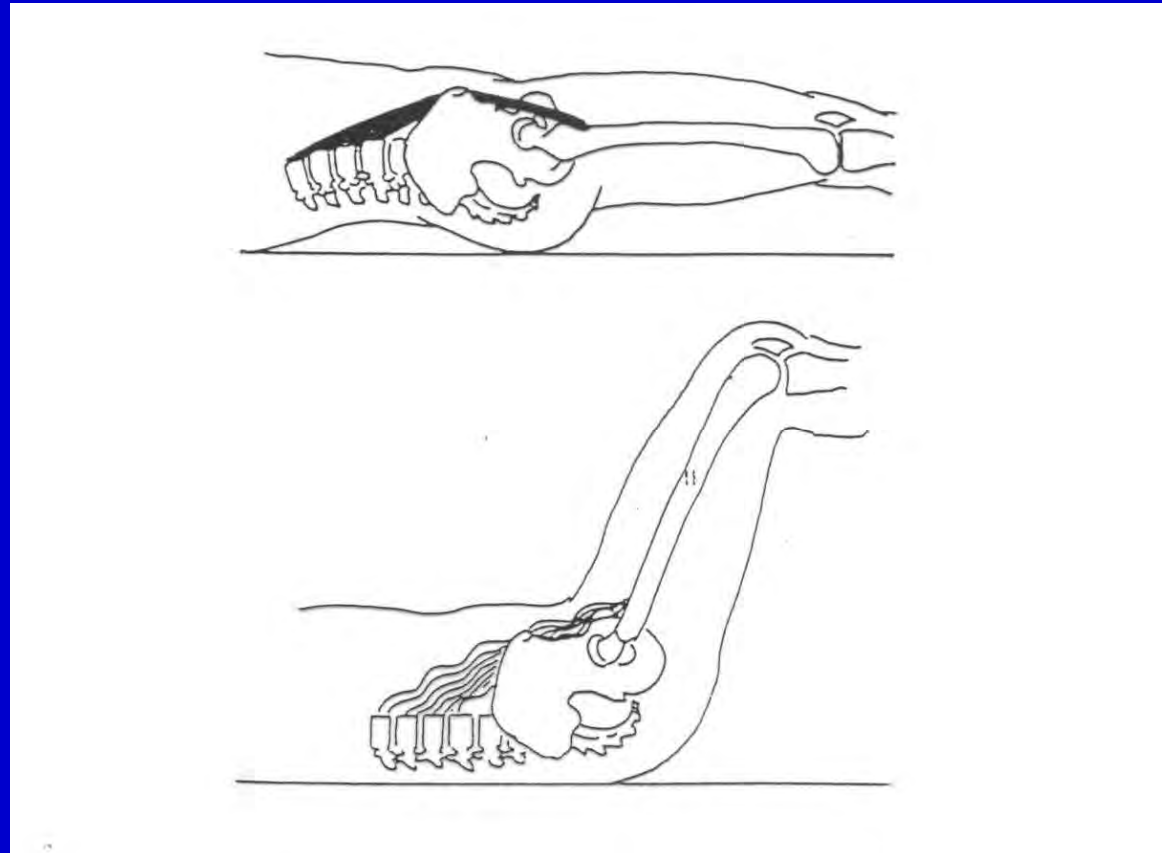
**MAI in**  
**"IPERLORDOSI"**  
**lombare**



**MAI**  
**"FLESSIONE**  
**ANTERIORE"**  
**del busto**  
**specialmente con**  
**CARICO**

esclusivamente

"INCLINAZIONE"



**QUANDO SIAMO DISTESI**



***Il movimento è spesso  
in grado di sostituirsi alle  
medicines mentre qualsiasi  
medicina non potrà mai  
sostituirsi al movimento!!***

**Tissiet**