

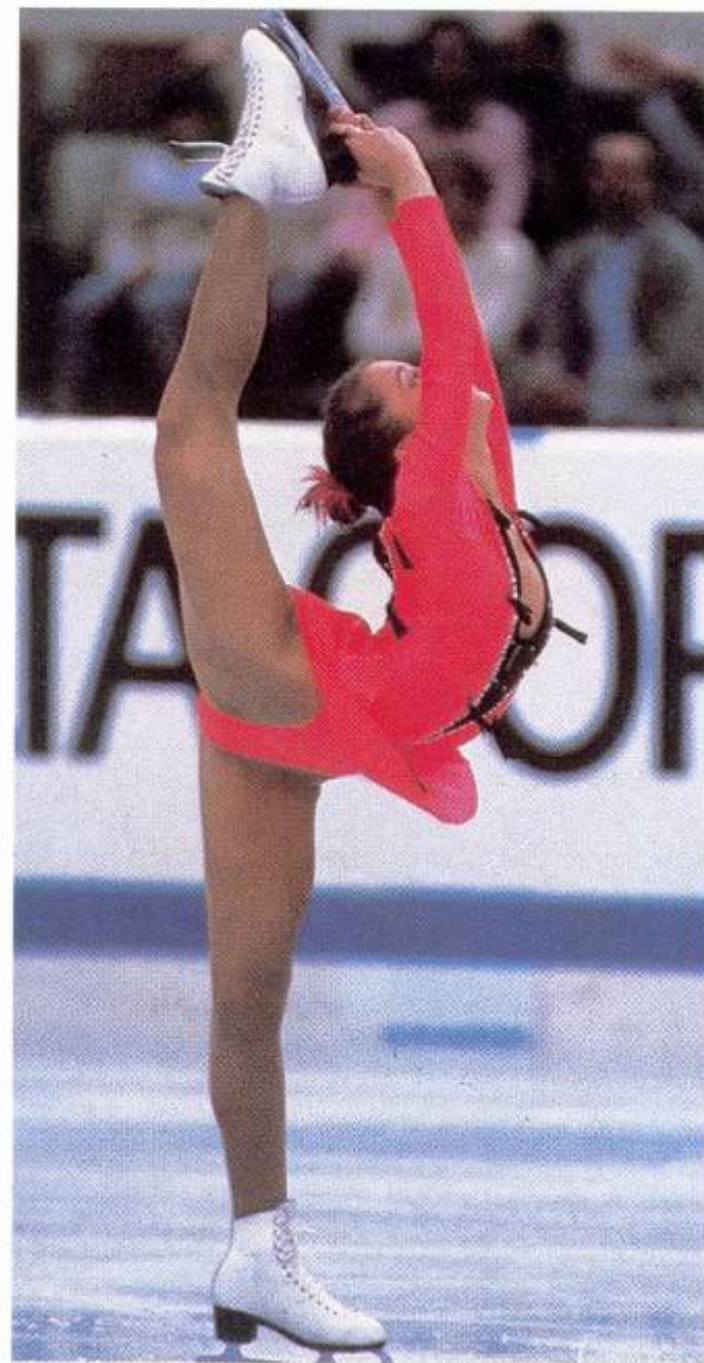
# École du dos



Principe du verrouillage lombaire

[www.ecoledudosparis.com](http://www.ecoledudosparis.com)

# Attention



# Alarmant

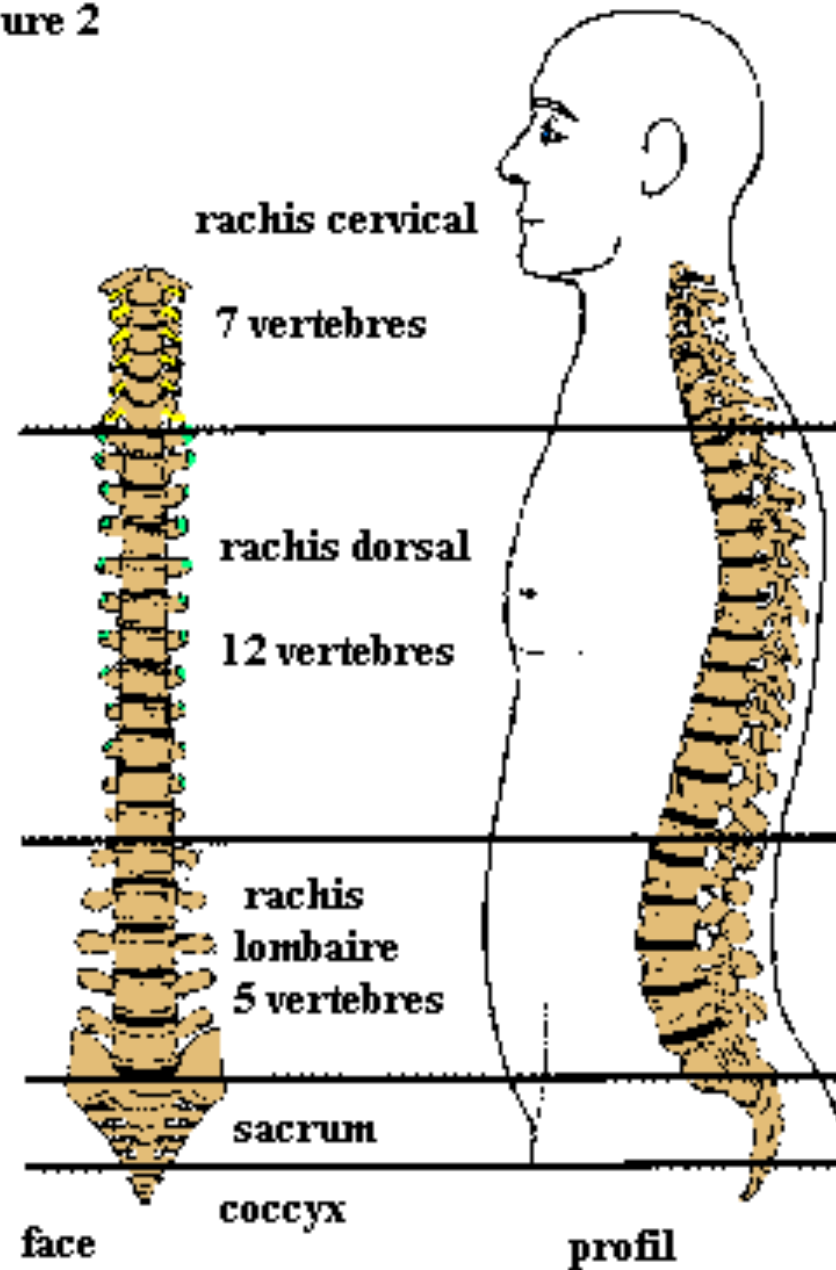


# Grandes lignes

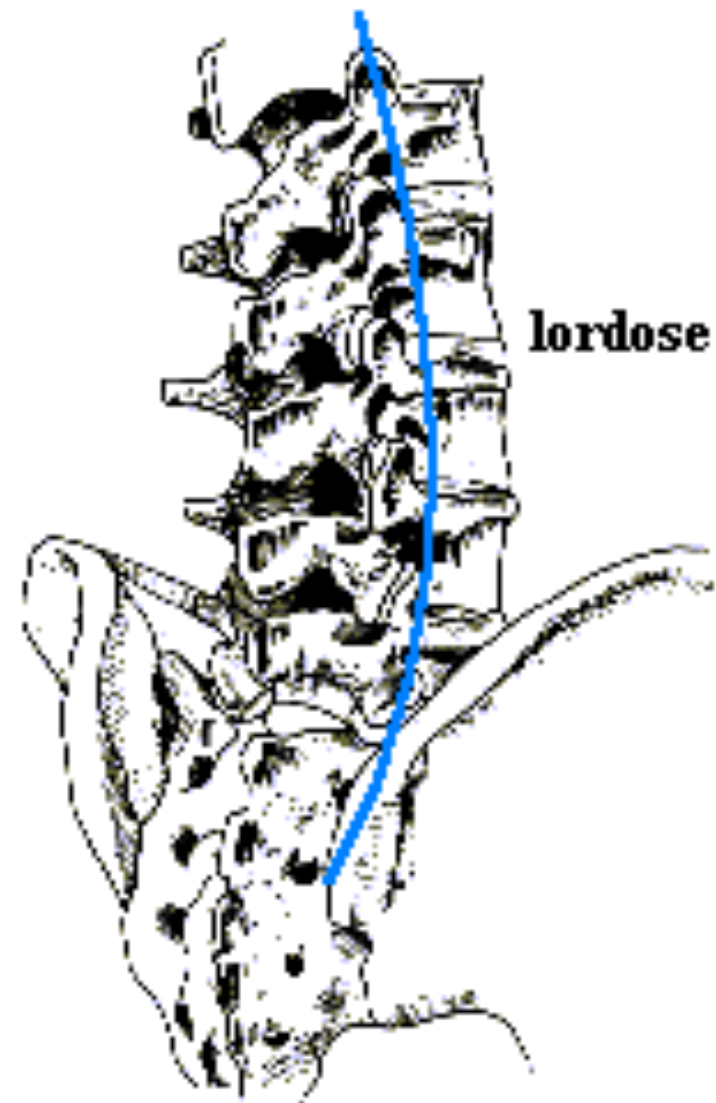
- Première cause d'arrêt de travail
- 3 600 000 journées de travail perdues, 110000 arrêts de travail en augmentation constante
- 500 millions d'euros
- Passage à la bipédie
- Nécessite une prise en charge volontaire
- Un dos est-il fragile?
- Pourquoi la douleur?

# Colonne vertébrale

figure 2



# Lordose lombaire



**figure 4**

# Disque intervertébral

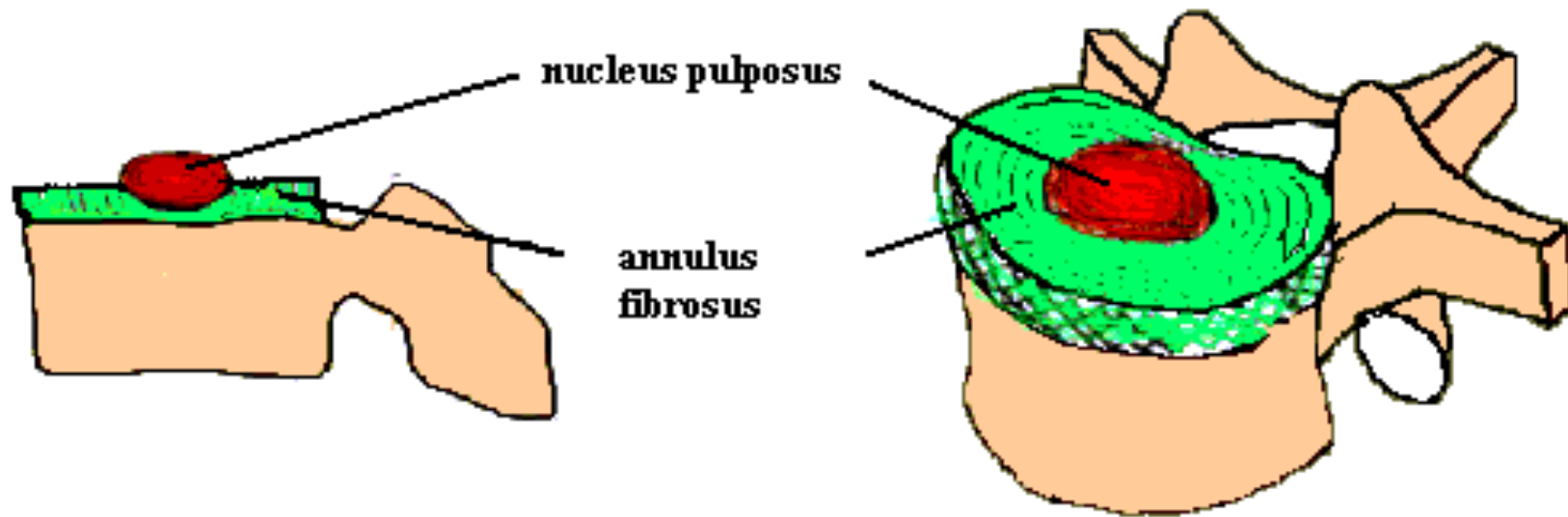


figure 1

# Vertèbre lombaire

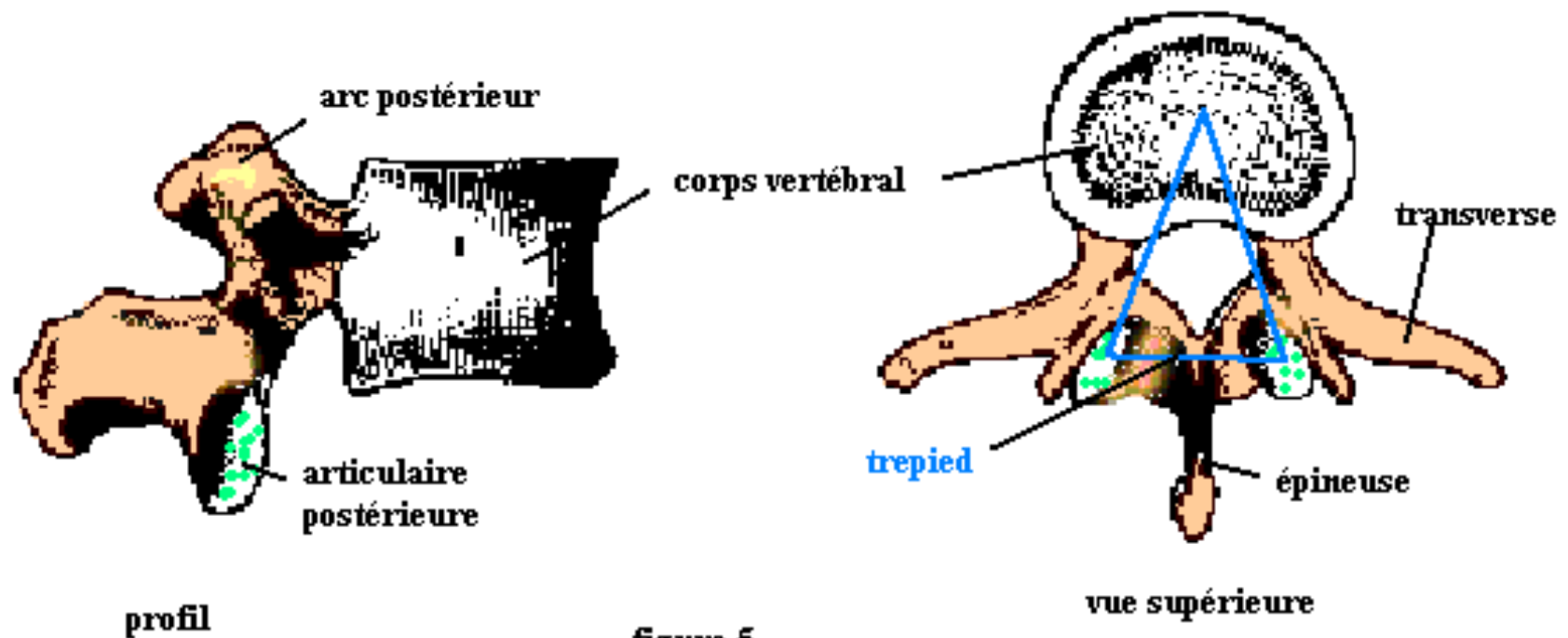
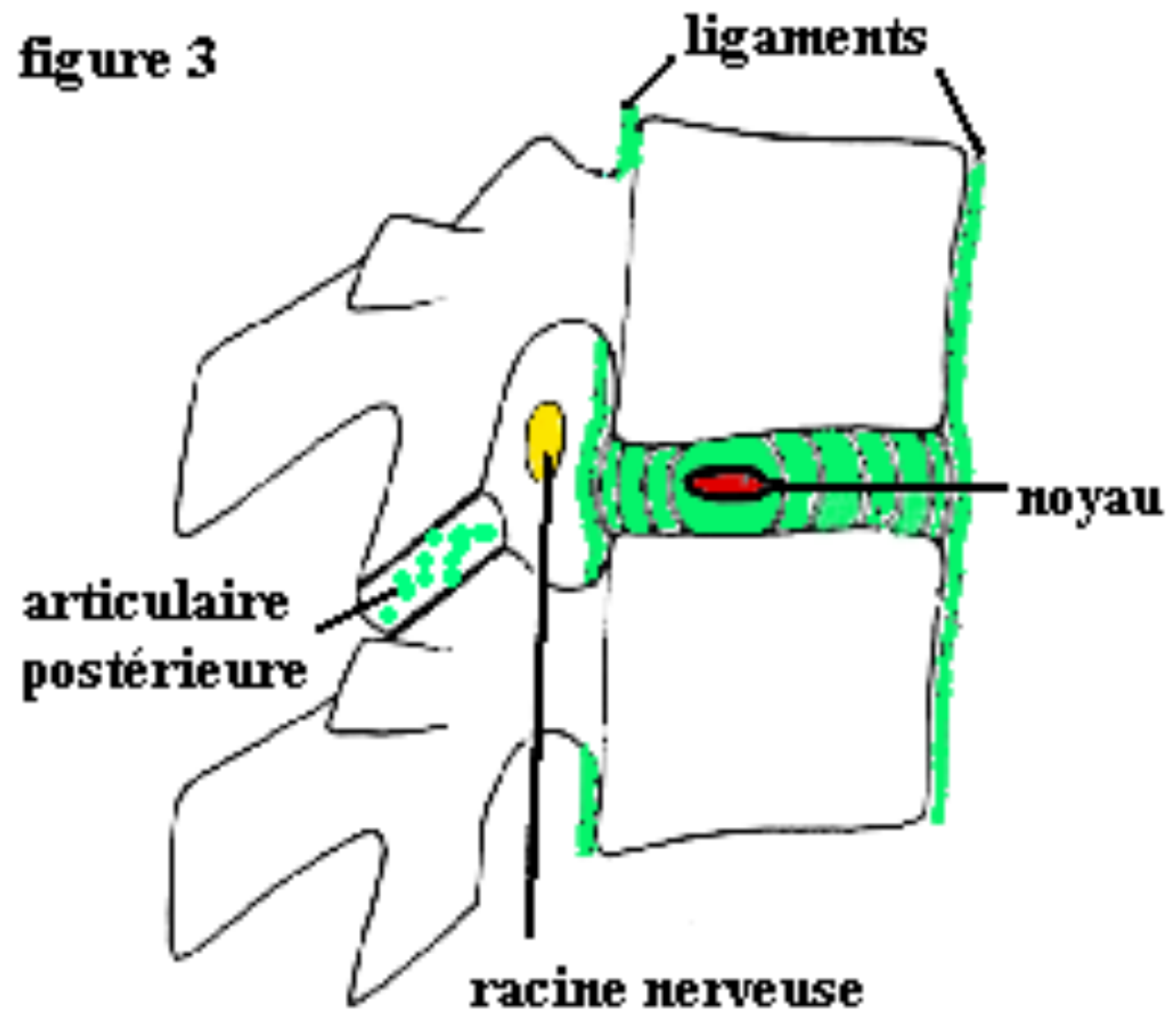
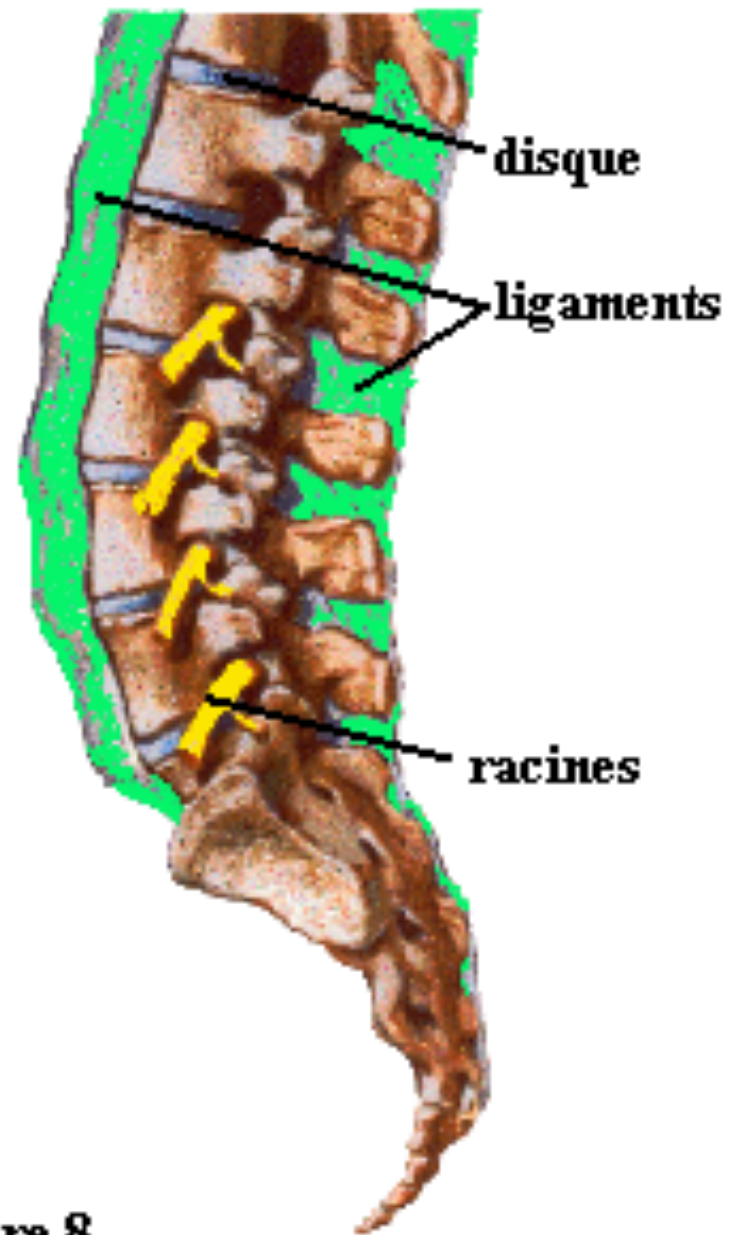


figure 5

LCVP  
LCVA



# Ligaments



**figure 8**

# Spinaux profonds

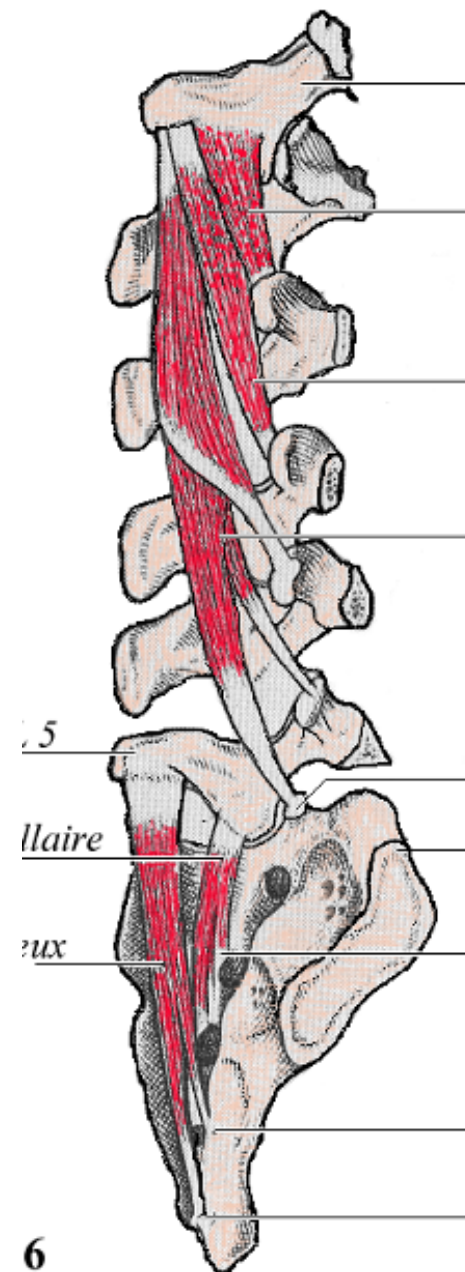
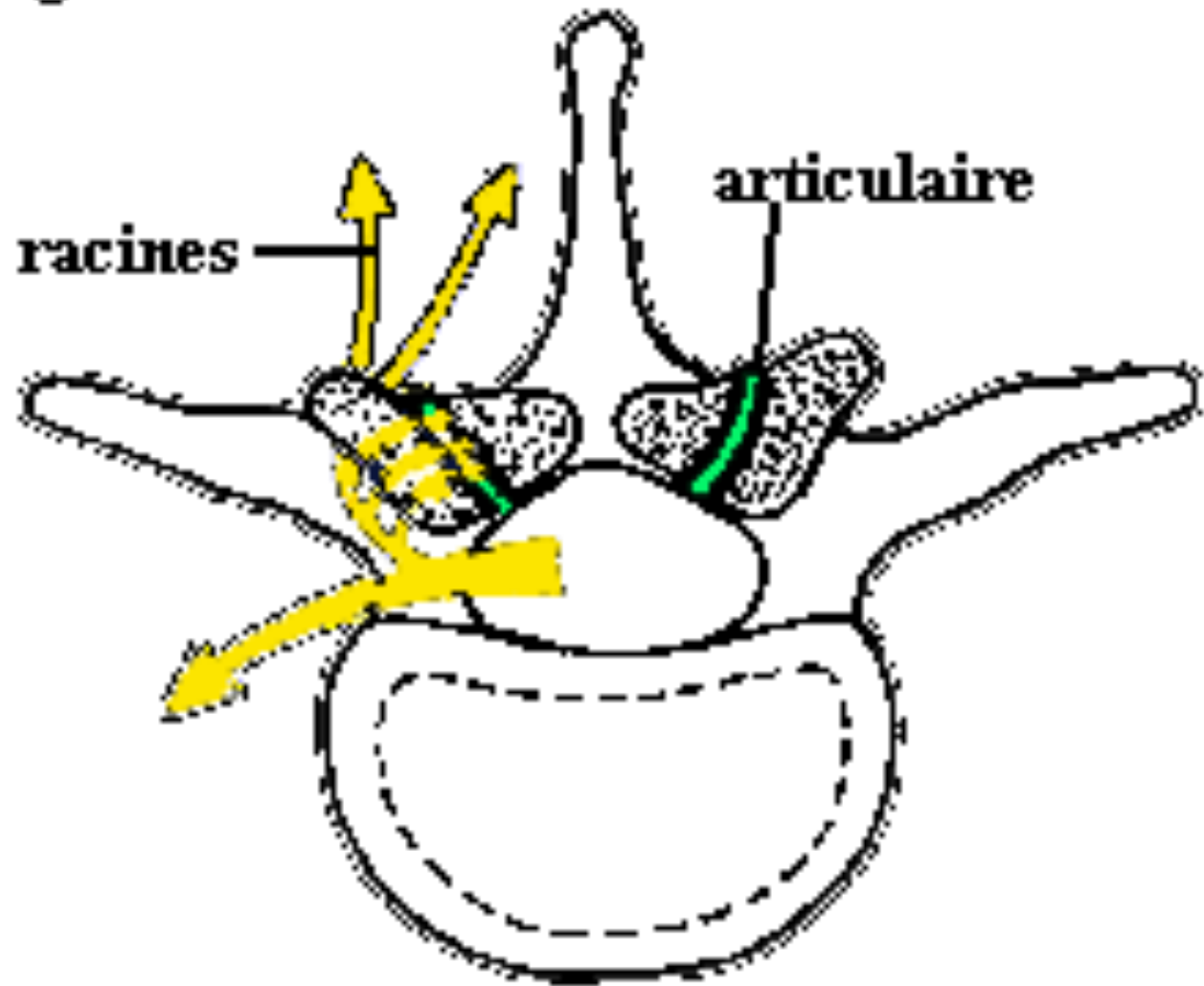
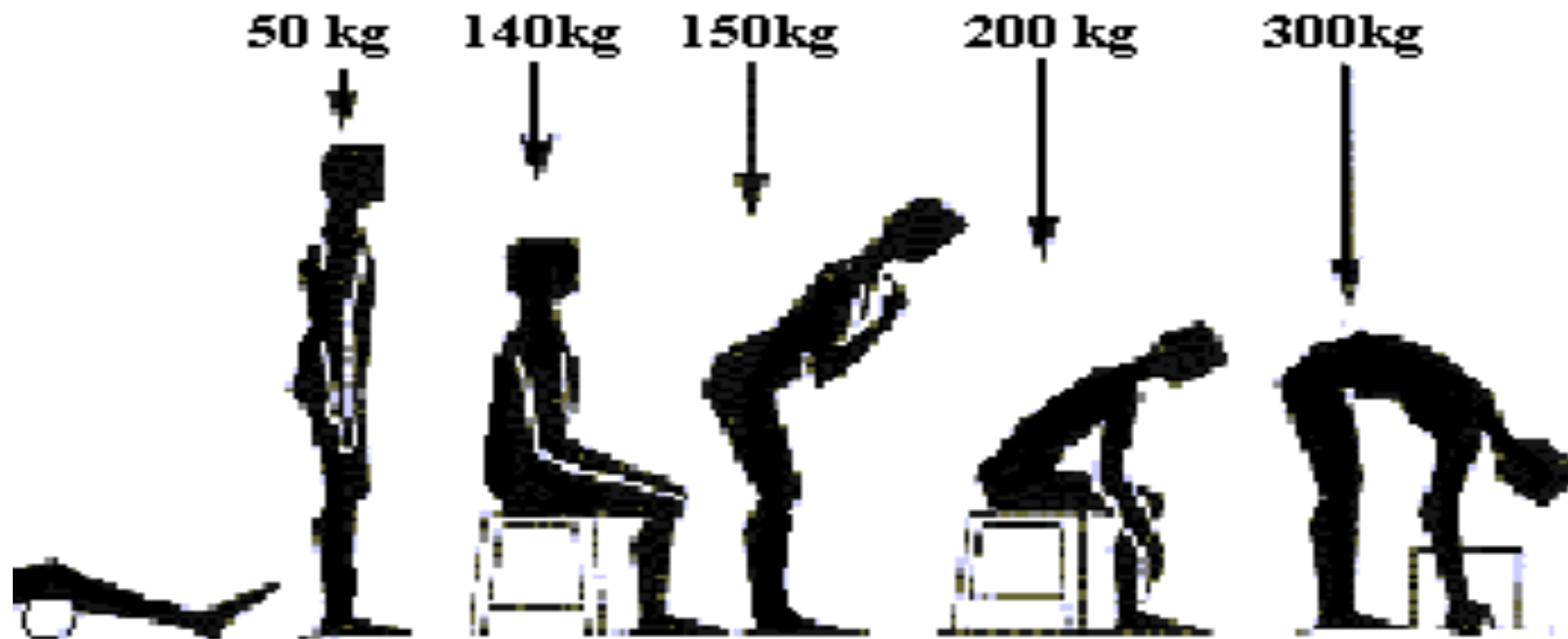


figure 7



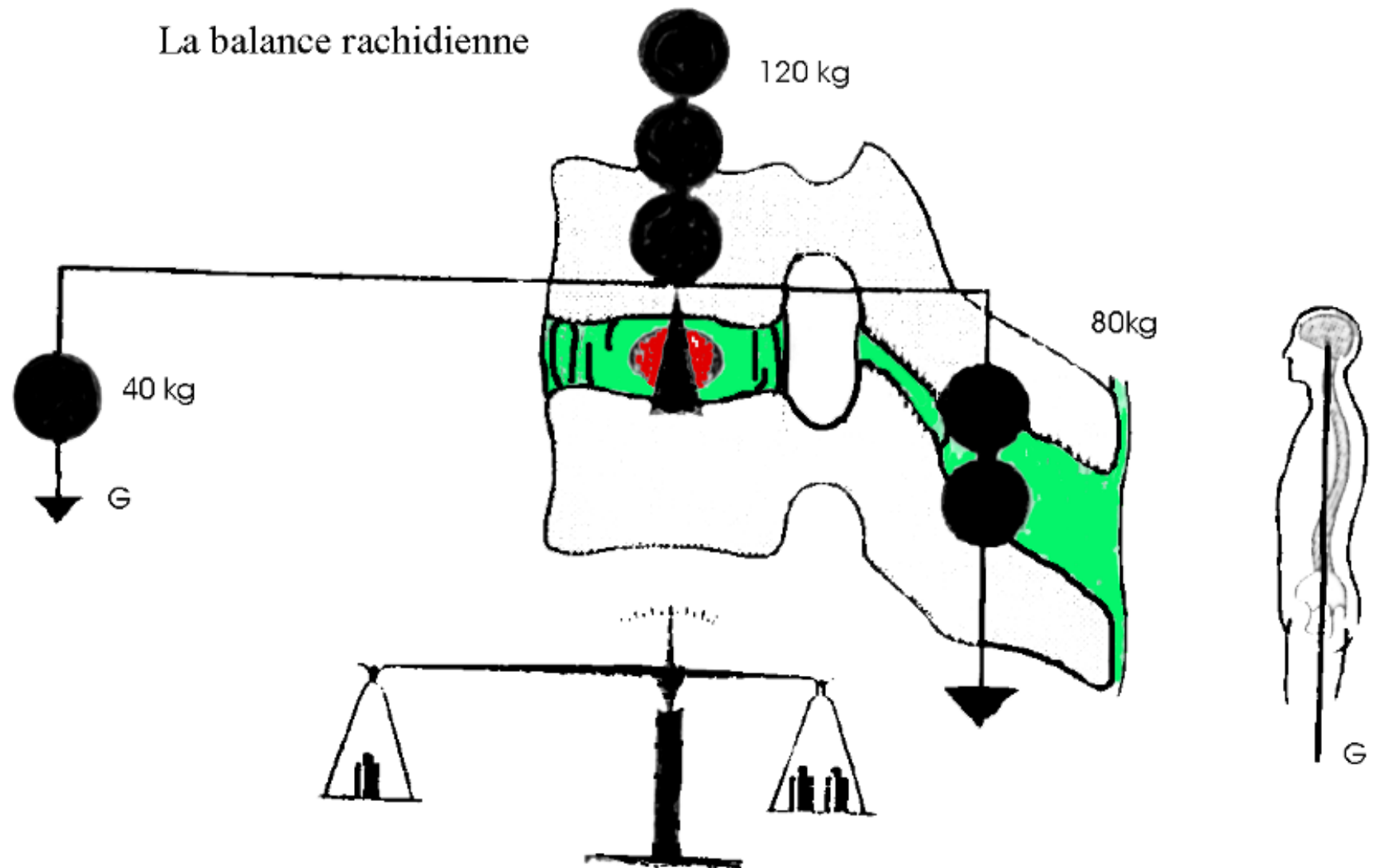
Racines  
nerveuses

# Contraintes L5/S1



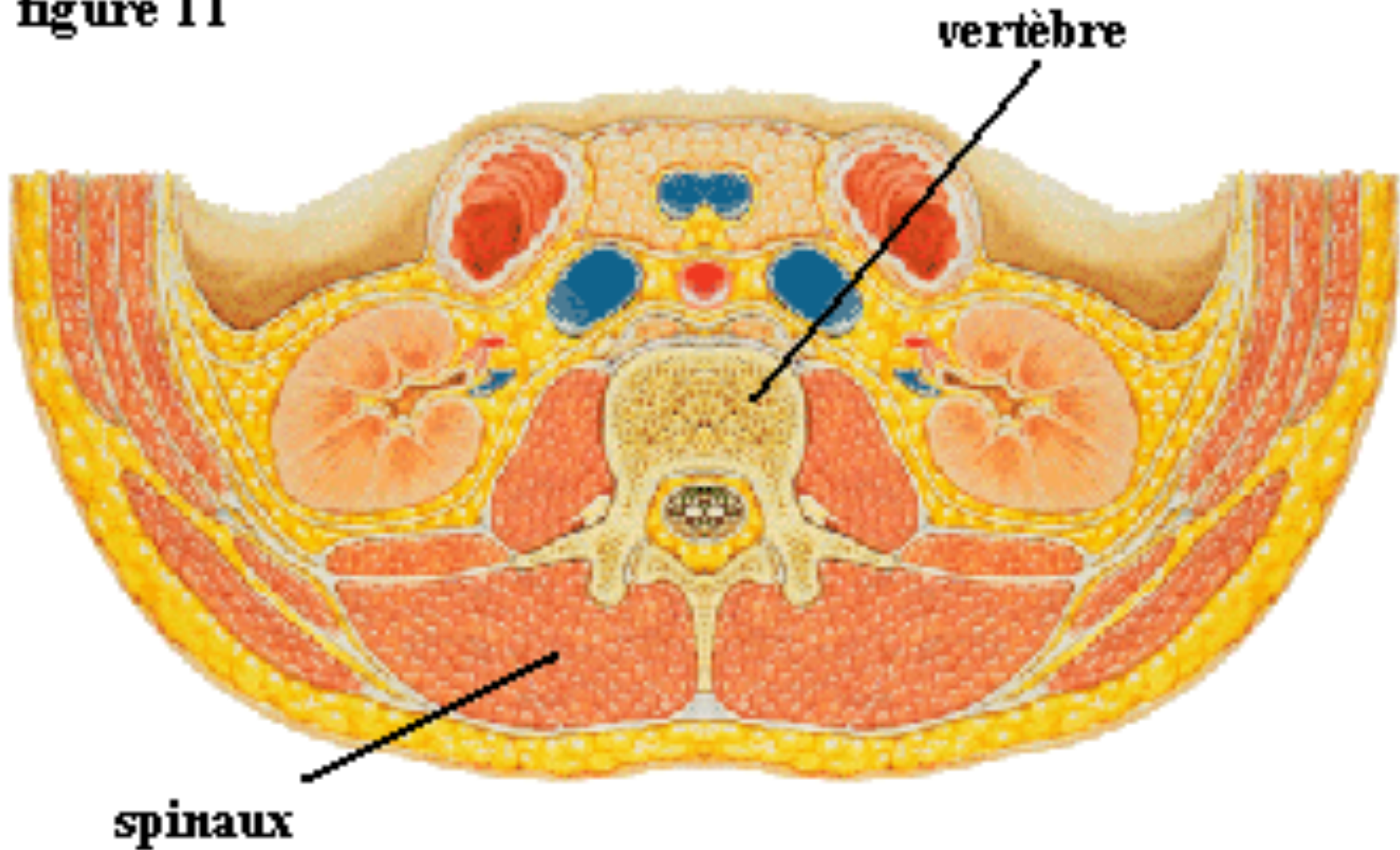
**pression exercée sur le disque intervertébral**

# Balance rachidienne

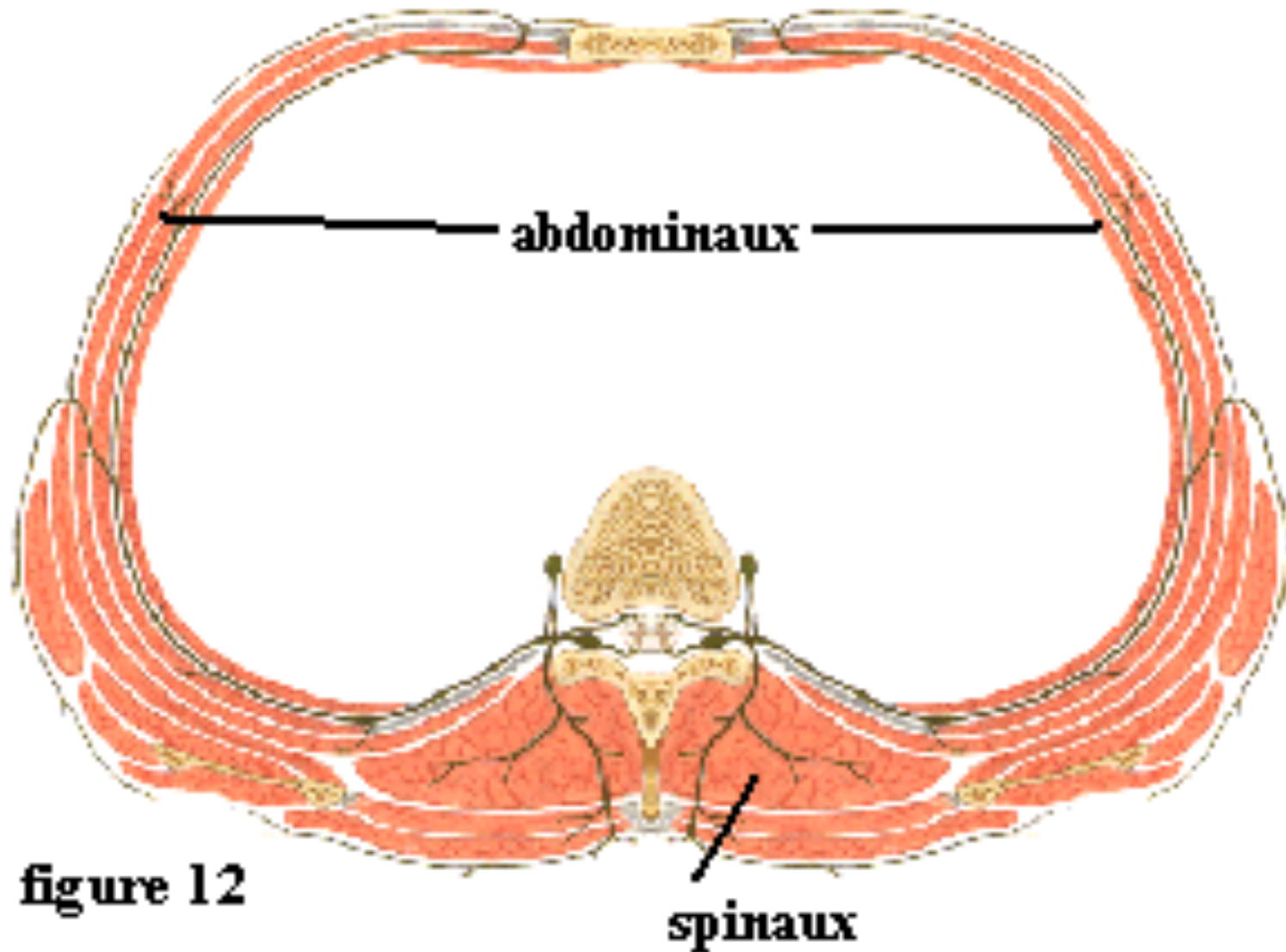


# Poutre composite

figure 11



# Corset musculaire



# Evaluation musculaire

| Pic du couple en N/m 30°/s | Abdominaux | Spinaux | Ratio A/S |
|----------------------------|------------|---------|-----------|
| Sujet sain                 | 307        | 369     | 0,8       |
| Lombalgie chronique        | 287        | 201     | 1,4       |

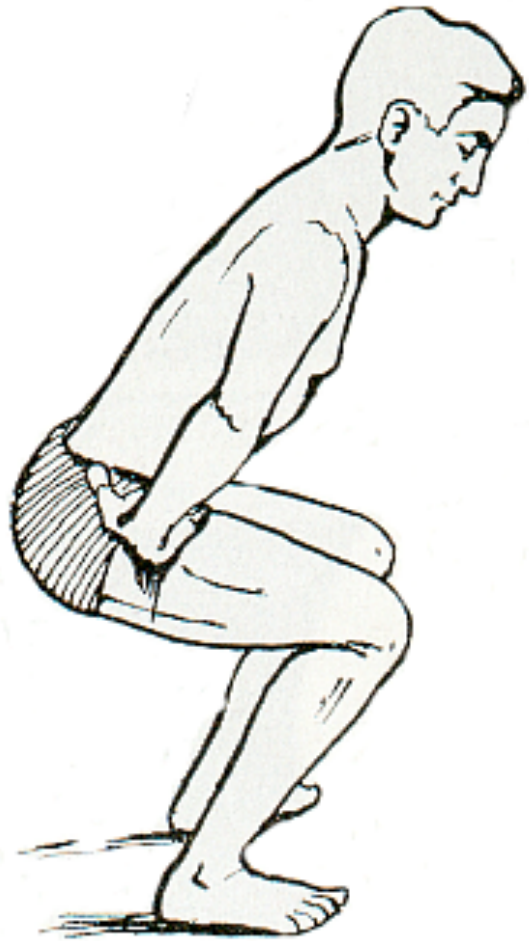
# Facteurs de risques

- Vitesse
  - Charge
  - Amplitude extrême
- 
- $E_c = \frac{1}{2}mv^2$
  - $E_p = mgh$

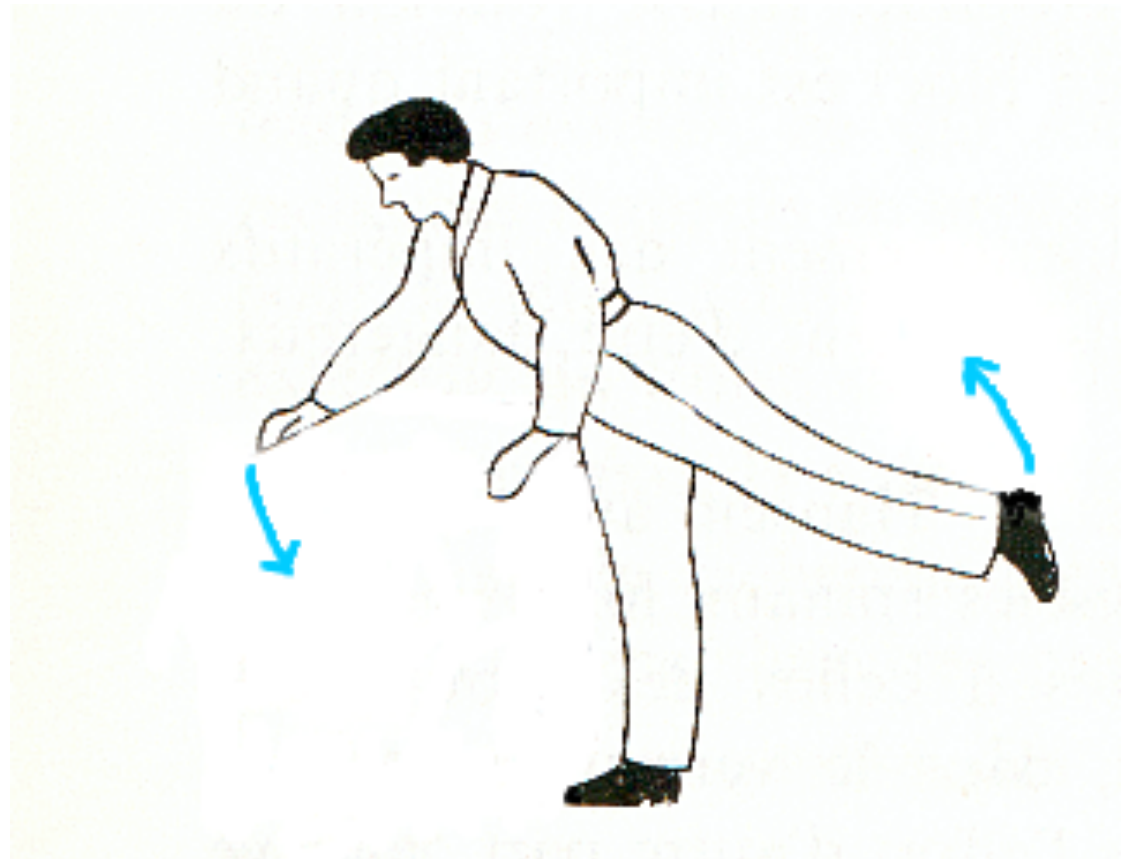
# Verrouillage lombaire

- Olivier Troisier, Hôpital Foch
- Immobilisation parfaite et volontaire des lombaires
- En statique ou en dynamique
- Position intermédiaire
- Co-contraction abdominaux spinaux
- Utilisation des membres inférieurs
- Mobilité sous-jacente

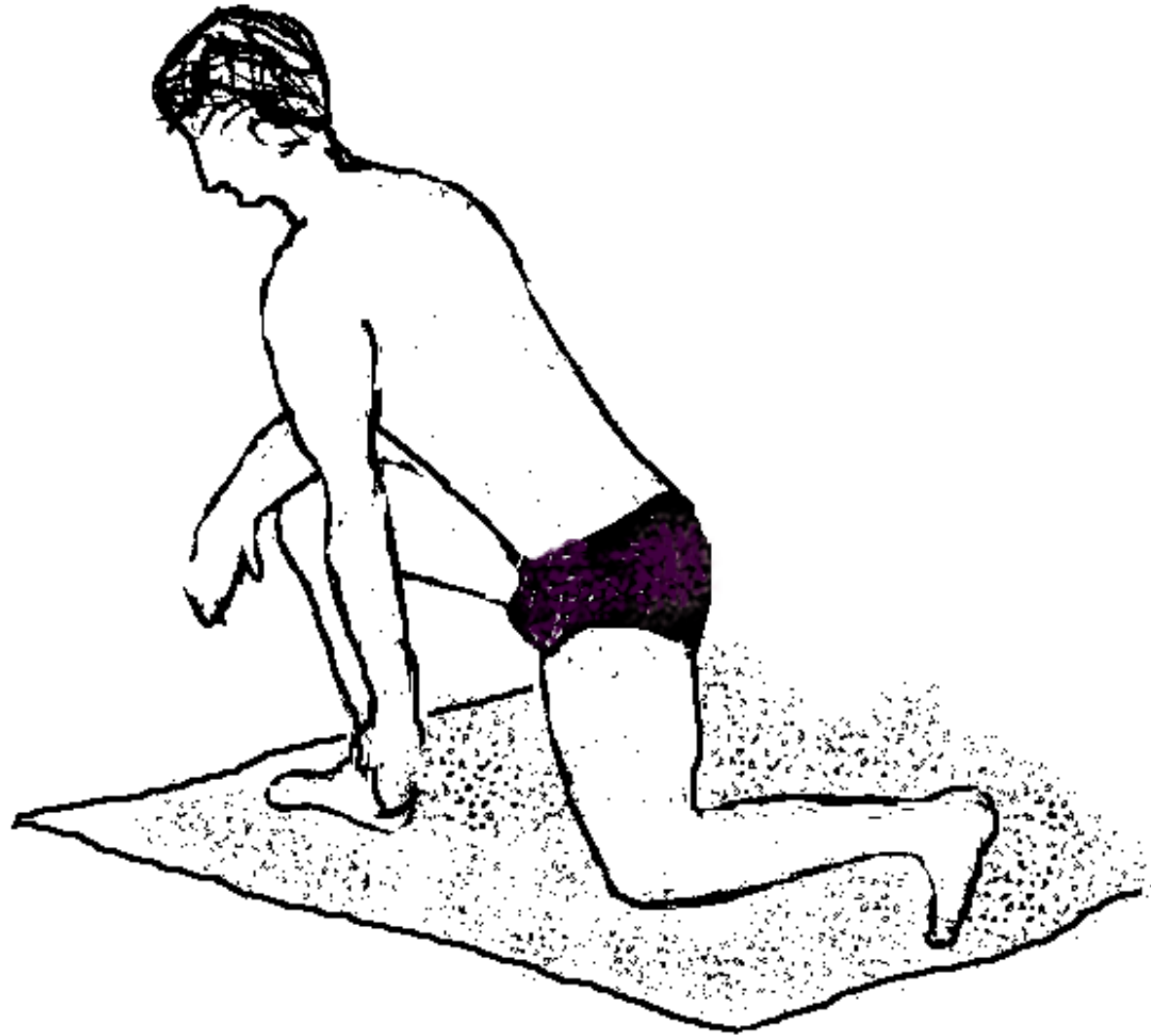
# Accroupi



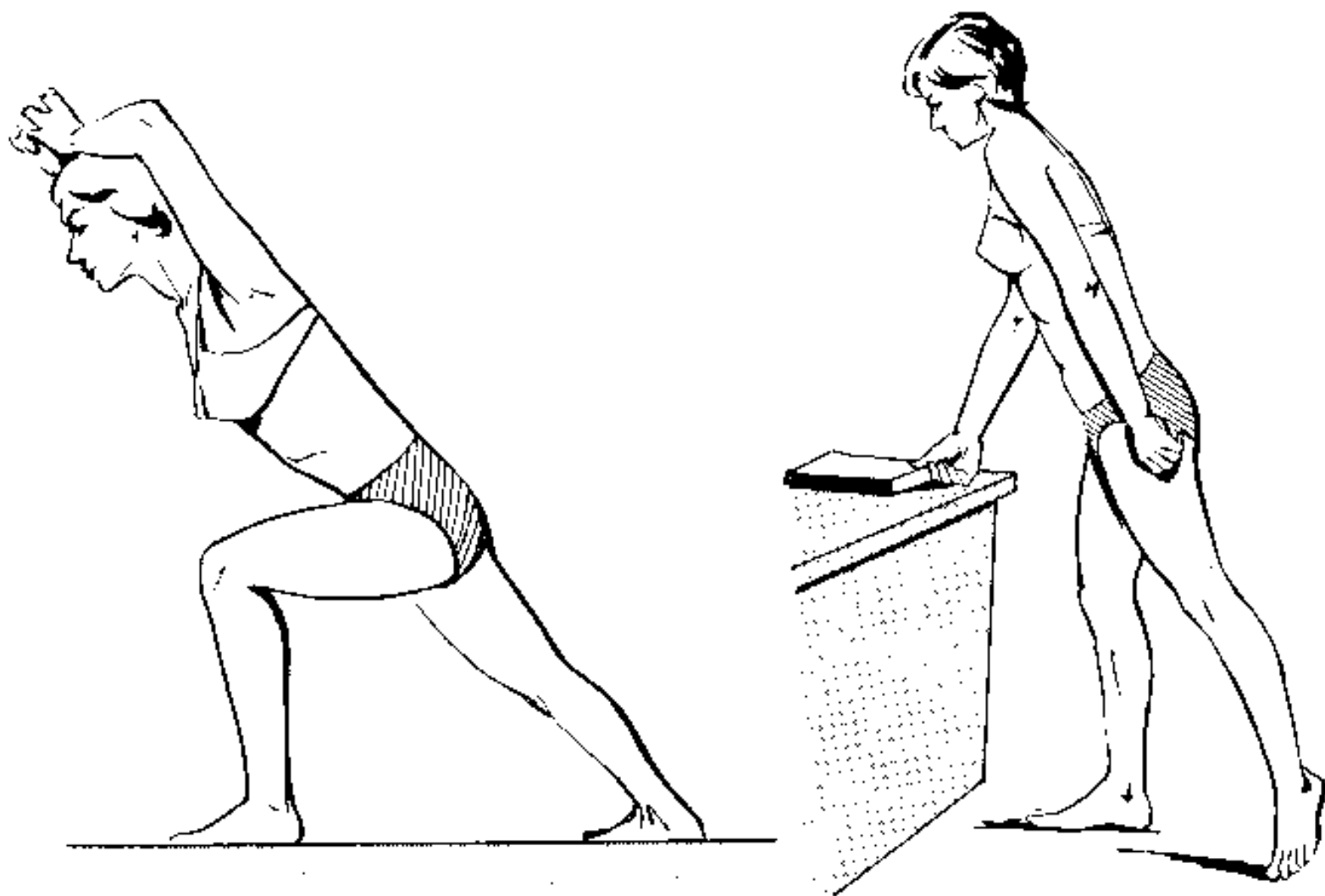
# Balancier



# Chevalier servant



# Fente avant



# Fentes arrière et latérale

