坐骨神經痛及微創手術治療

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養和醫院骨科及運動醫學中心

24.3.2009

講座内容

講解坐骨神經痛

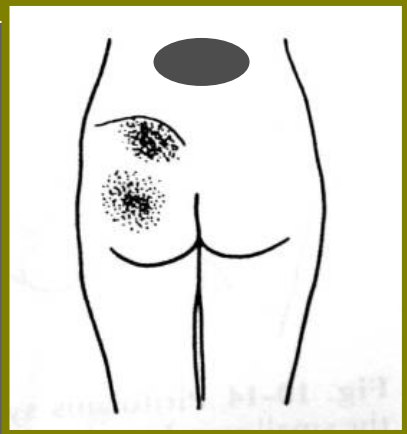
- 病癥
- 病因
- 治療方法

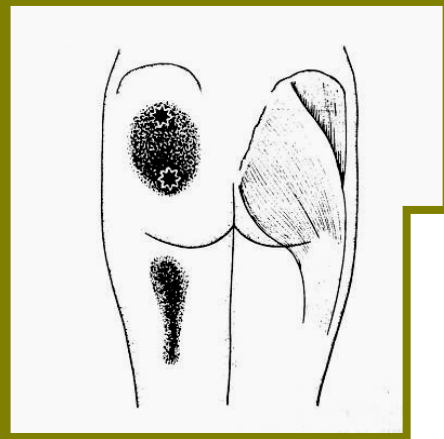
- 發問時間

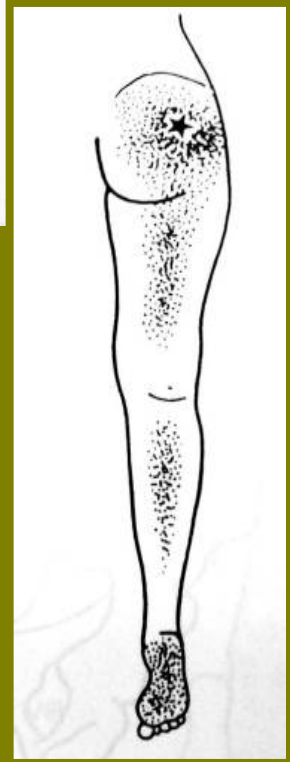
背痛 與 坐骨神經痛

- 腰椎病引致的不同痛症

- 腰背痛
- 神經反射痛
- 坐骨神經痛
  - 沿坐骨神經而痛

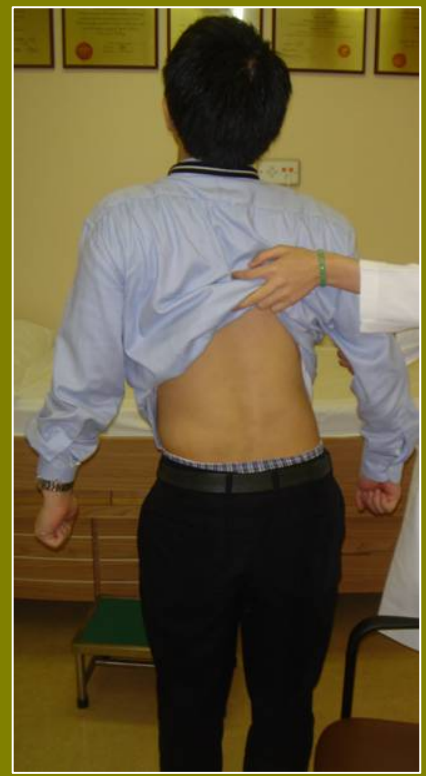




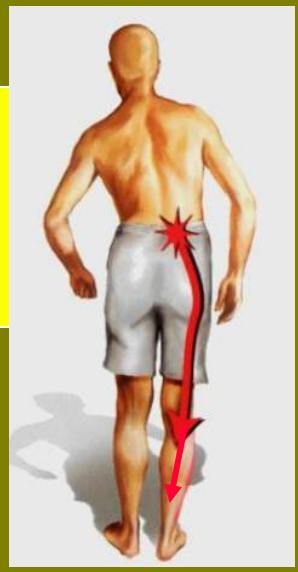


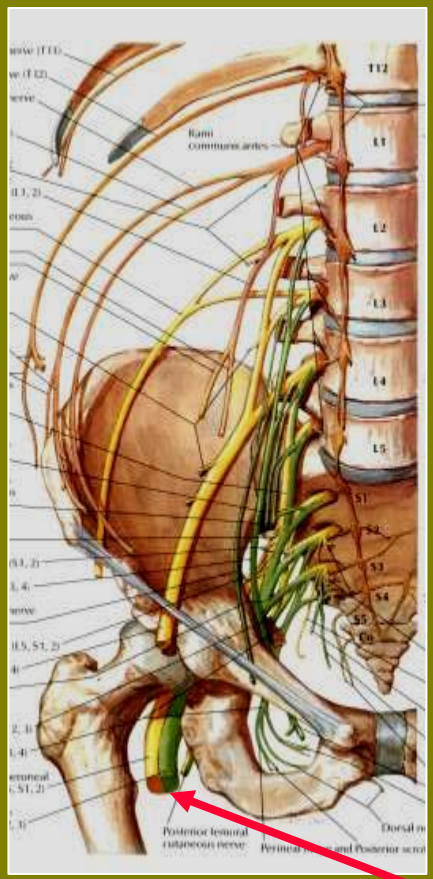
何謂坐骨神經痛?

- 沿坐骨神經而痛

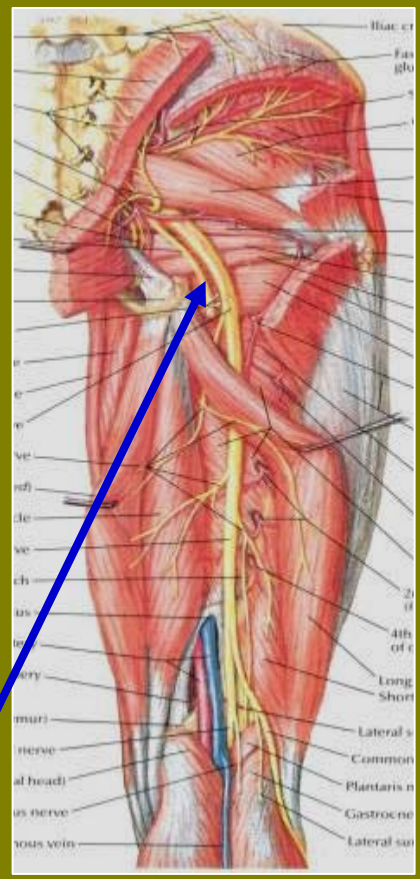


何謂坐骨神經痛?



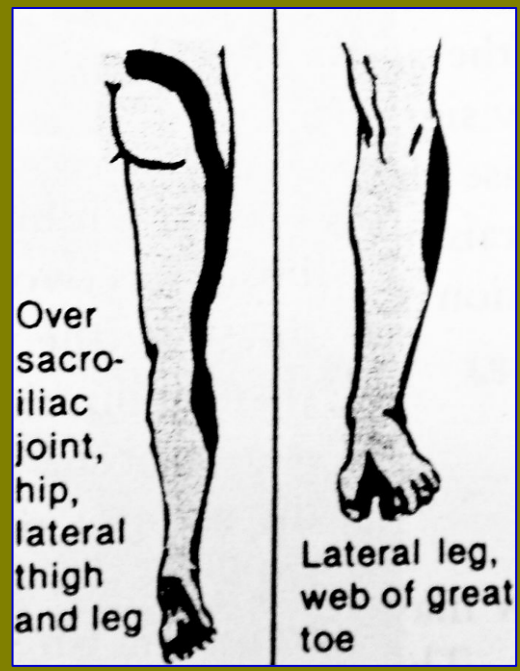


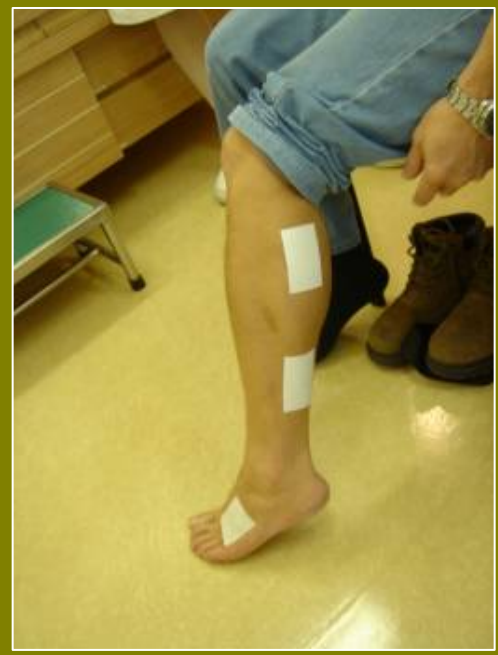
坐骨神經



坐骨神經痛

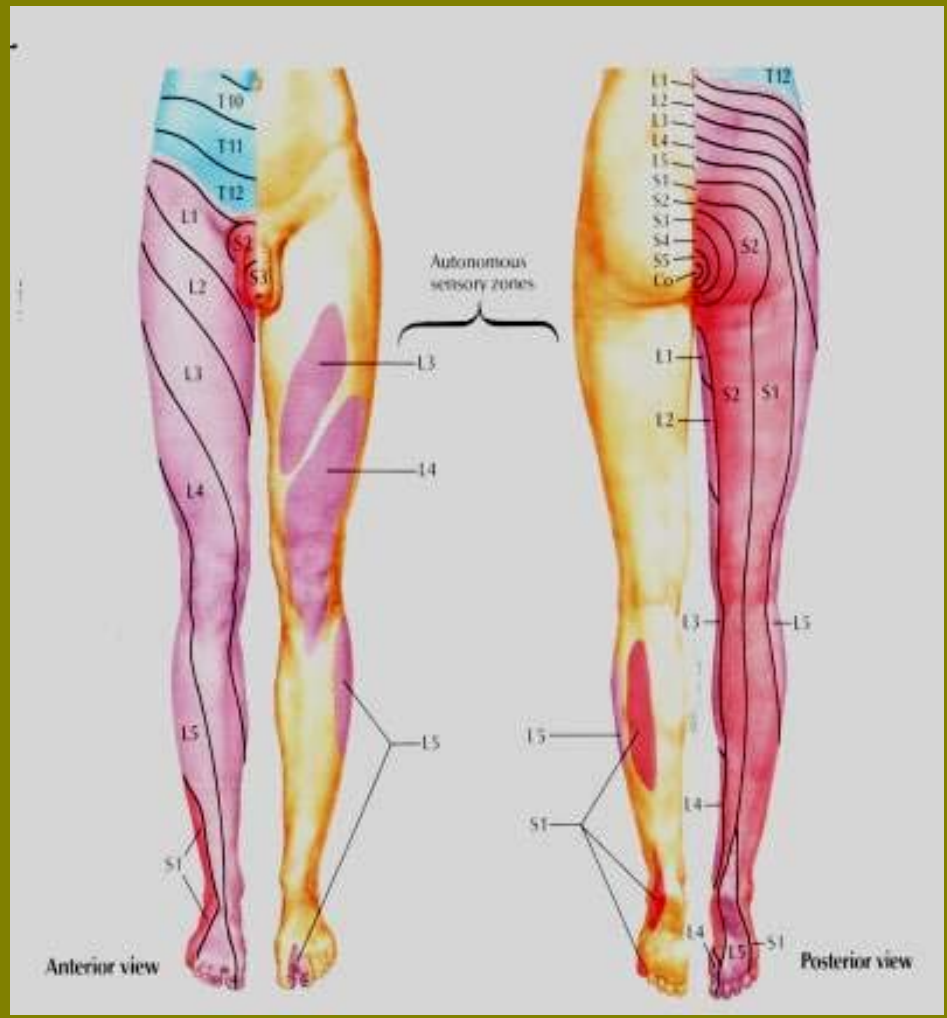
- 痛症伸延至腳部
- 腳背或腳底
- 腳部麻痺無力





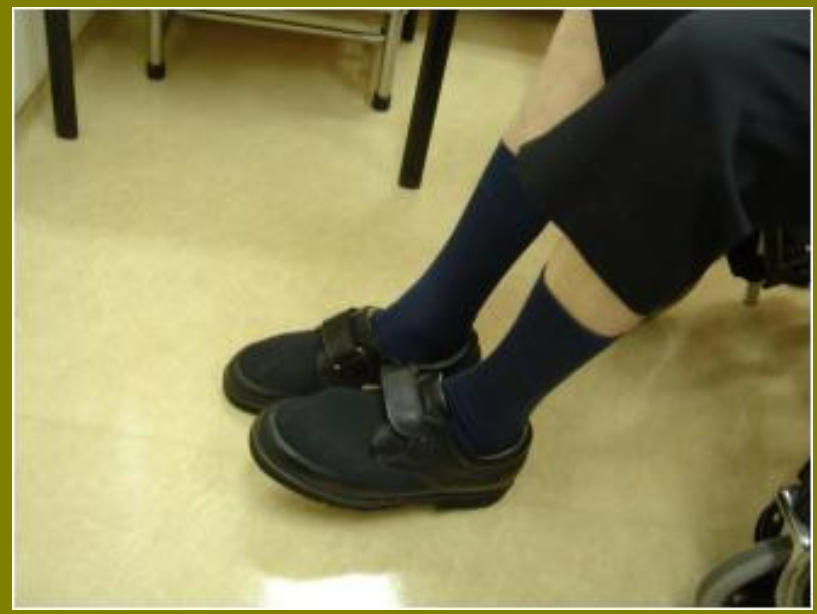
甚麼是麻痺？

- 針刺
- 麻木
- 感覺遲鈍



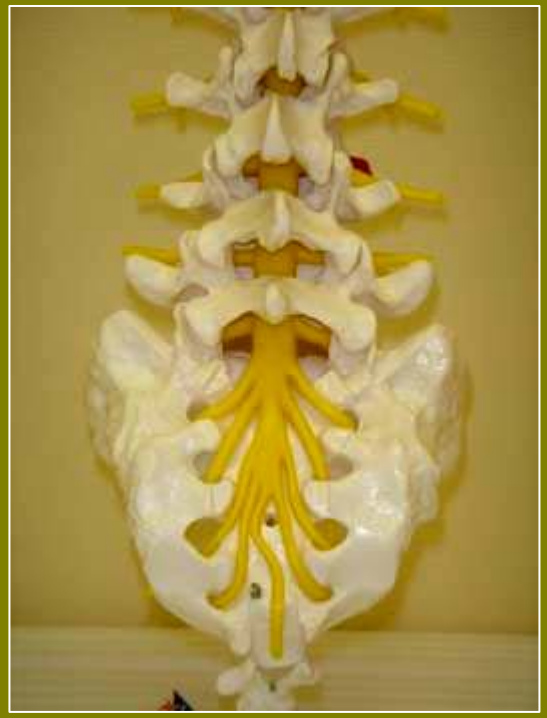
無力

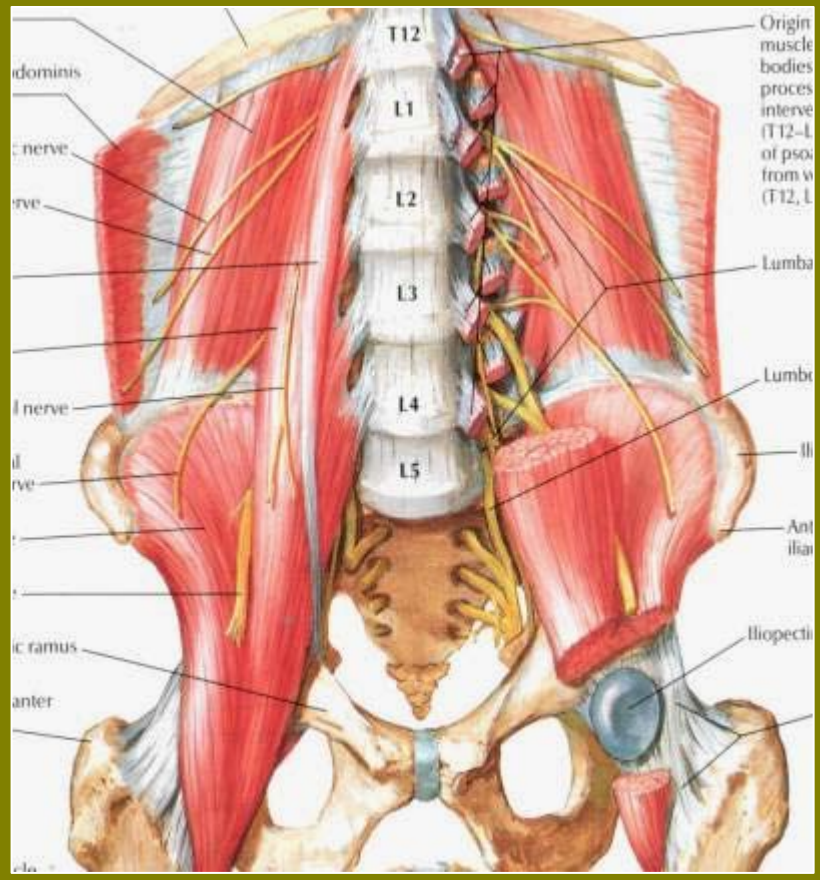
- 客觀測試
- 肌肉萎縮
- 個別肌肉測試
- 日常生活的影響



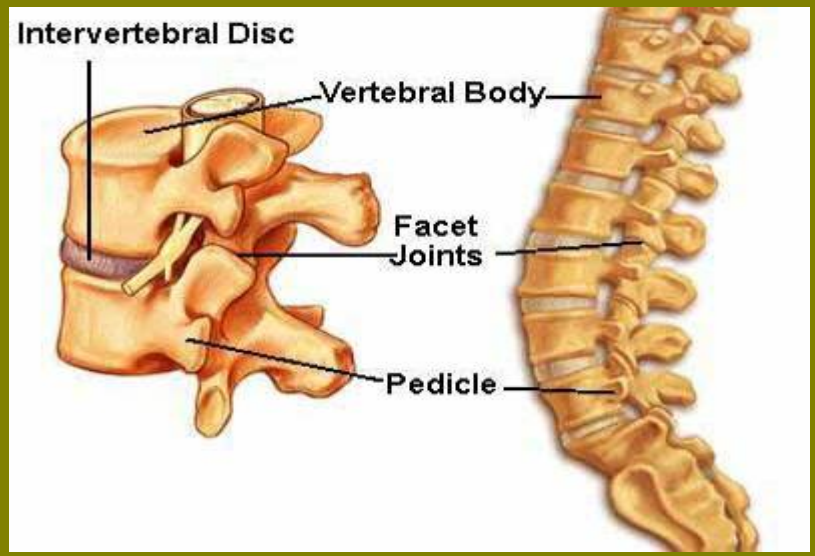
最嚴重的情況

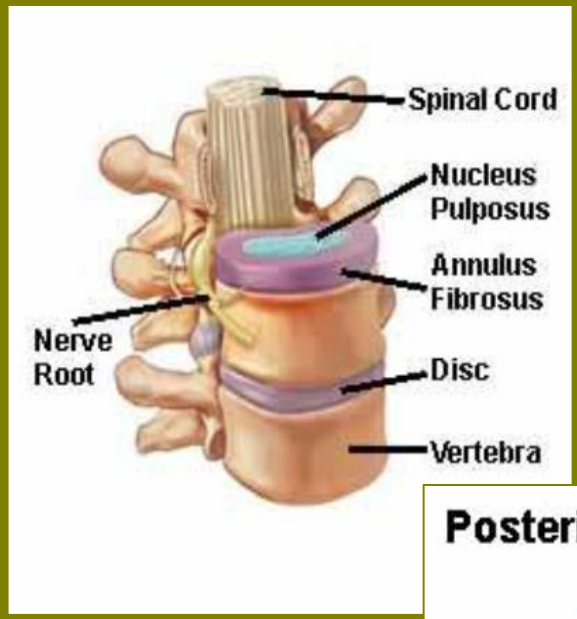
- 大小便失禁

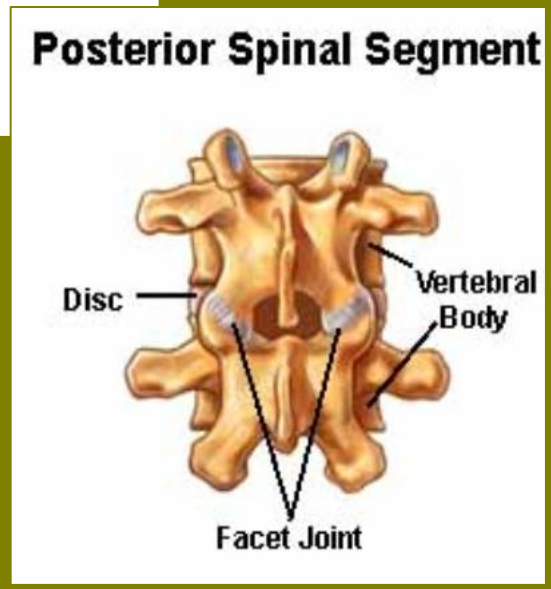




腰椎病的成因 - 腰椎結構

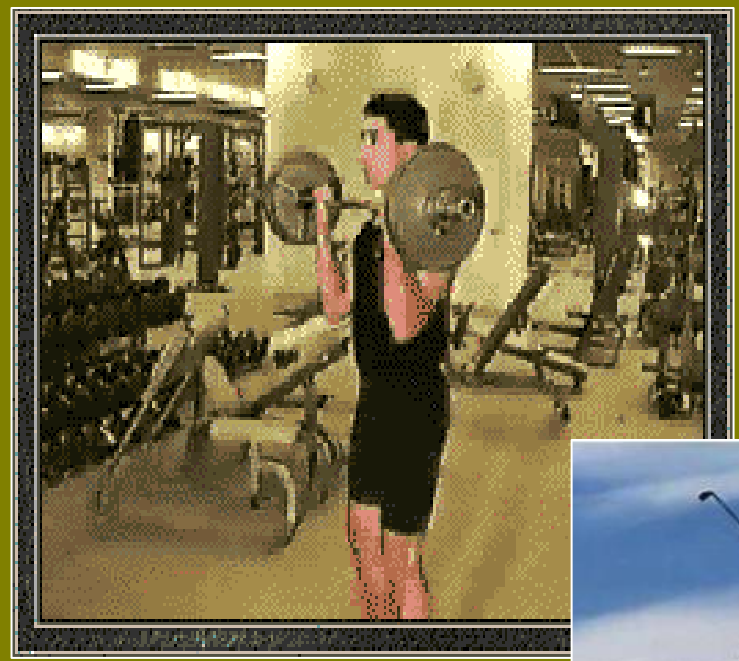

Intervertebral Disc
Vertebral Body
Facet Joints
Pedicle

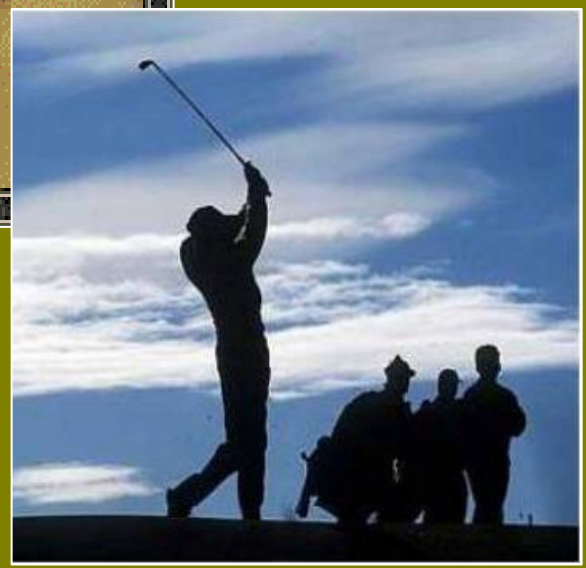

Spinal Cord
Nucleus Pulposus
Annulus Fibrosus
Nerve Root
Disc
Vertebra


Posterior Spinal Segment
Disc
Vertebral Body
Facet Joint

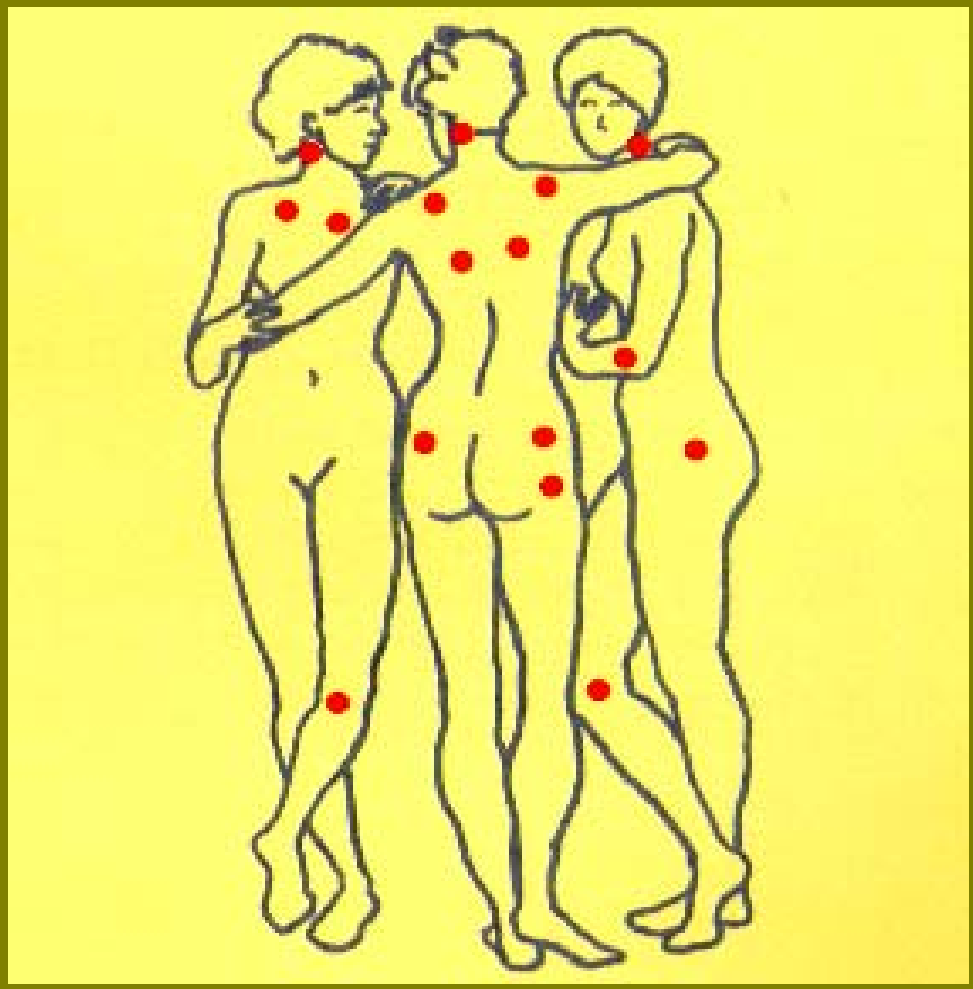
腰椎病的成因

- 經常拿重物
- 勞動性工作
- 行李
- 睡坐姿
- 運動損傷
  - 健身
  - 高爾夫球
  - 瑜珈



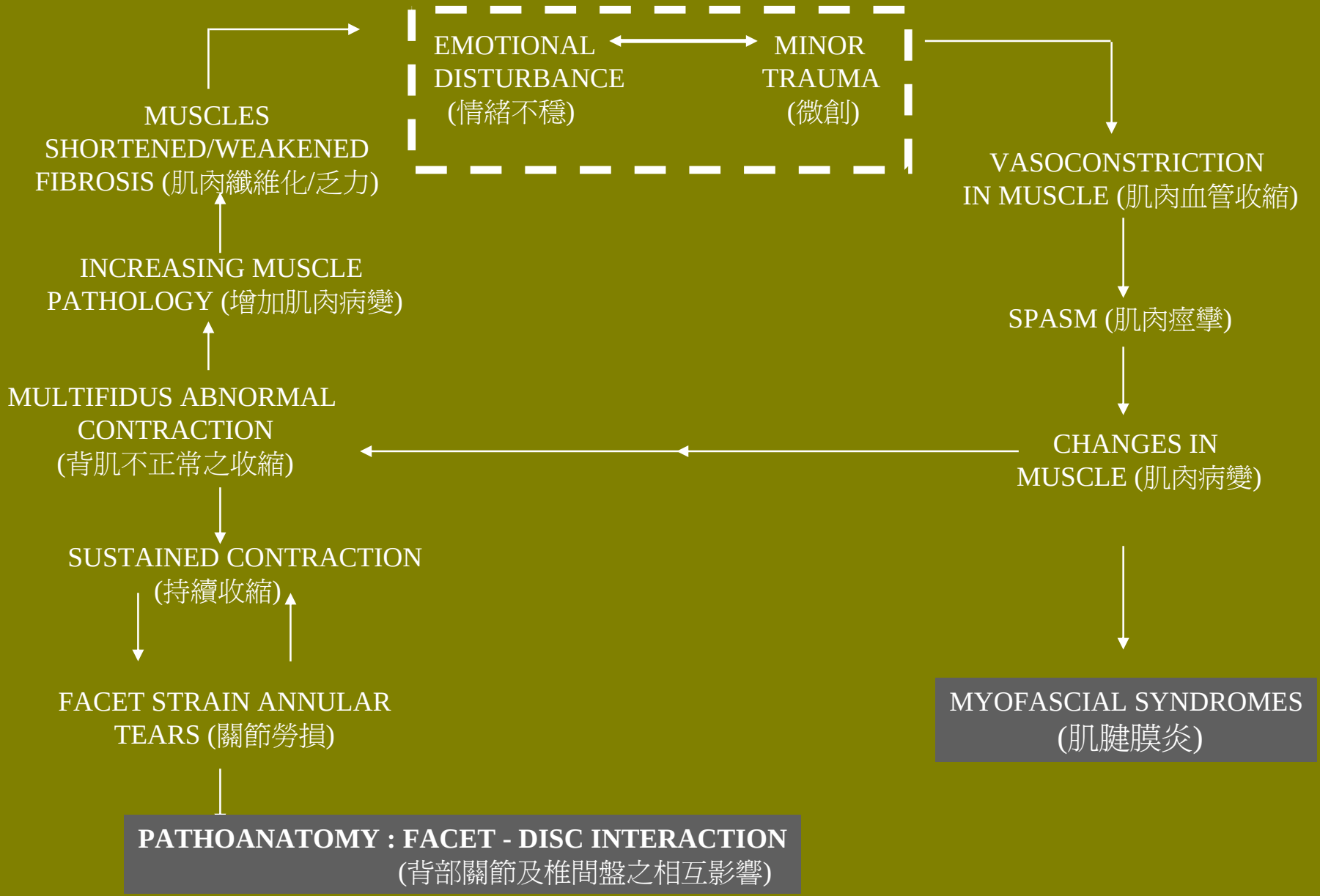


腰背痛及頸痛

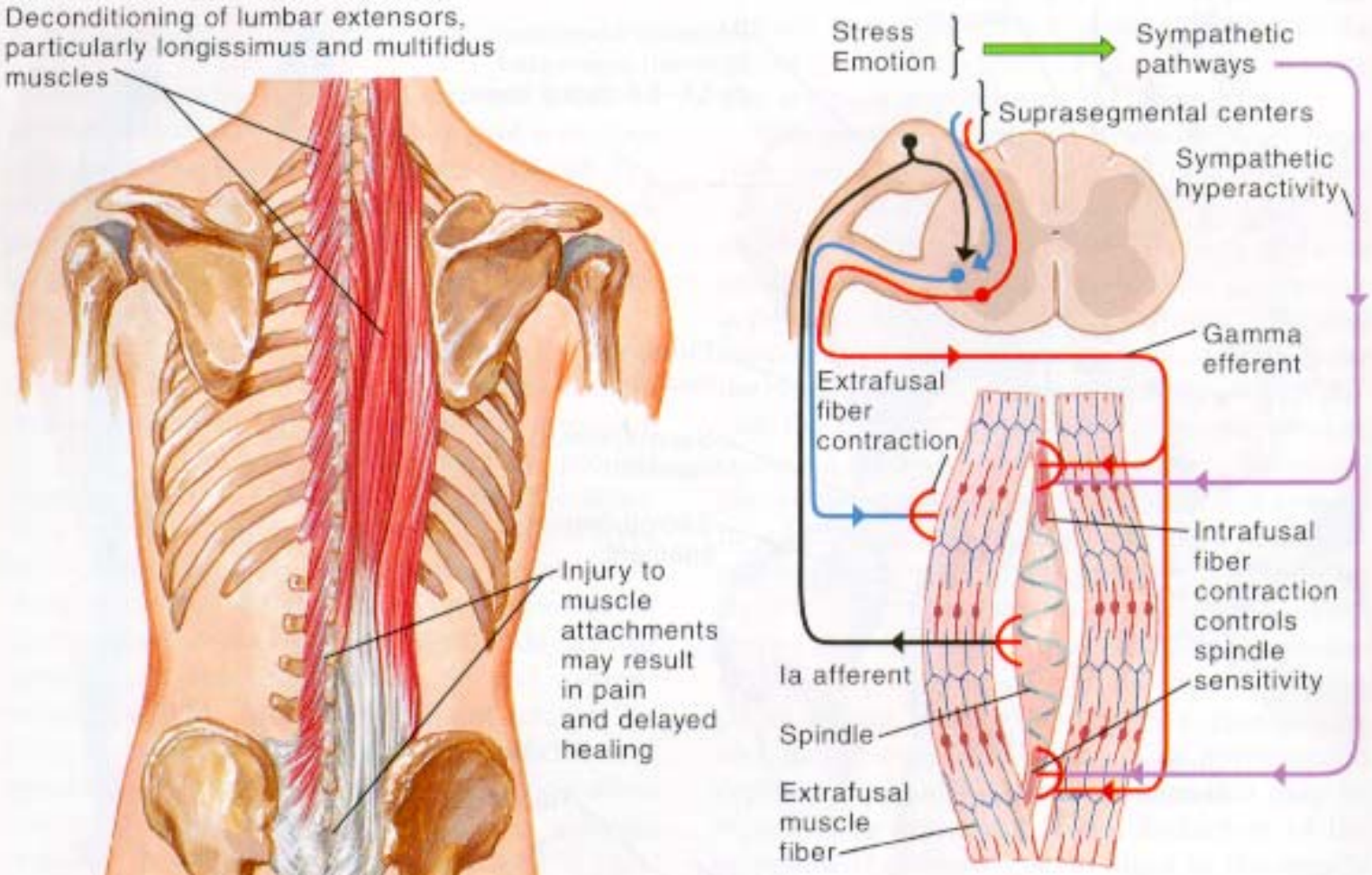


Pathophysiology : overview

MYOFASCIAL CYCLE

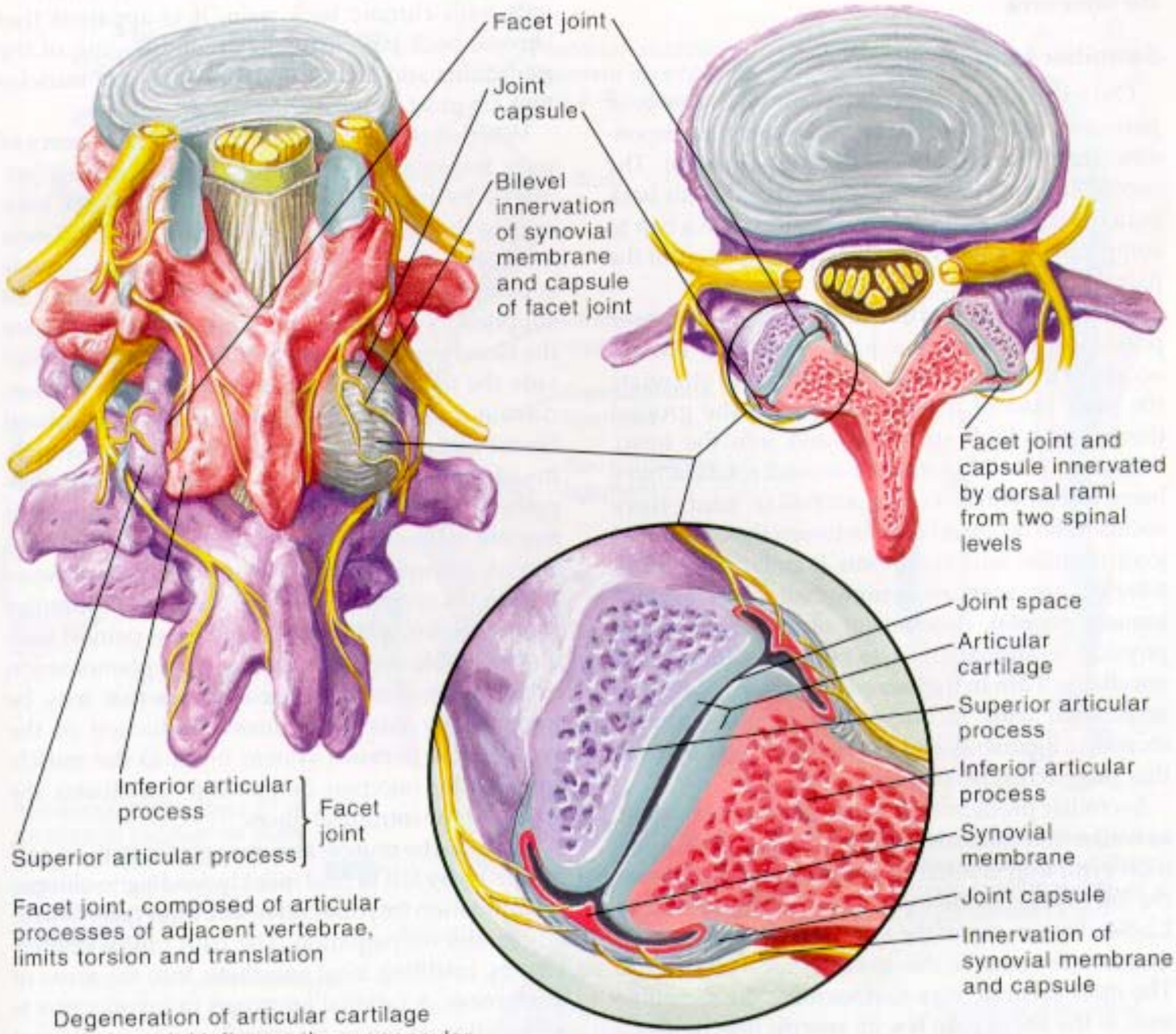


Myofascial Factors in Low Back Pain



Muscle spindles provide feedback mechanism for muscle tension. Sensitivity of spindles modulated by gamma efferent system and by sympathetic innervation of spindles. Sympathetic hyperactivity can result in painful spasm of spindles

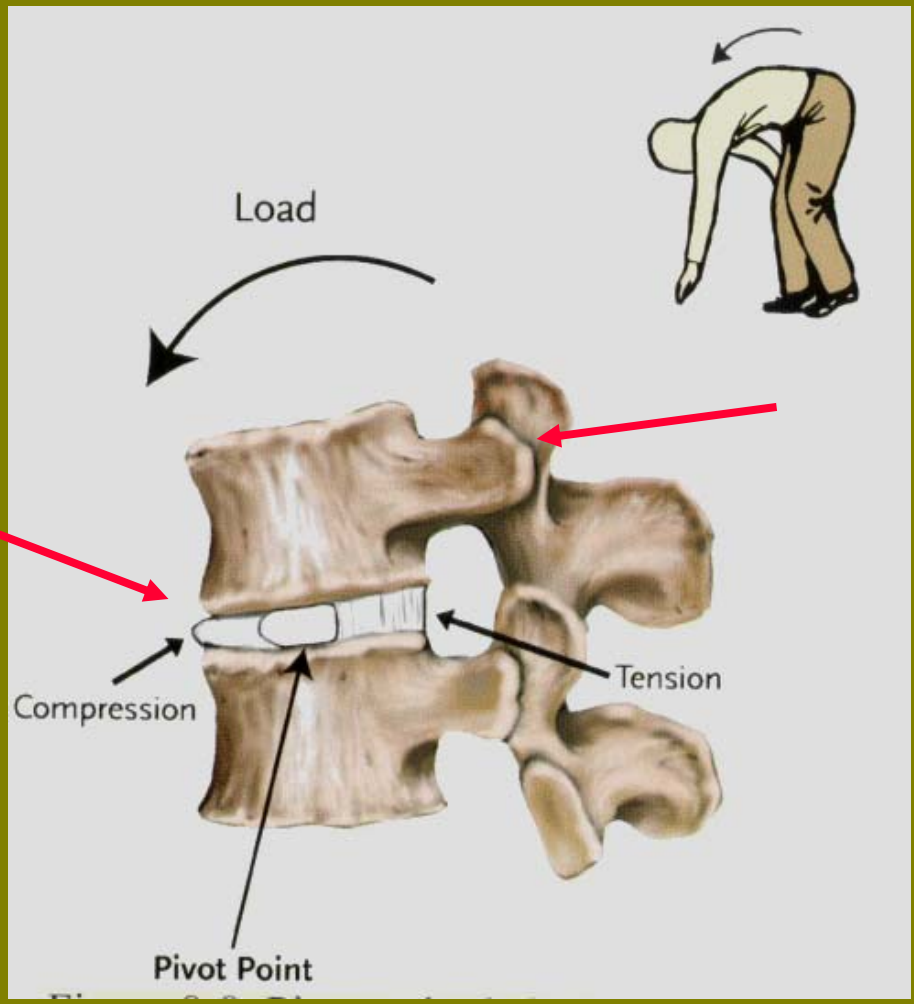
Facet Joint



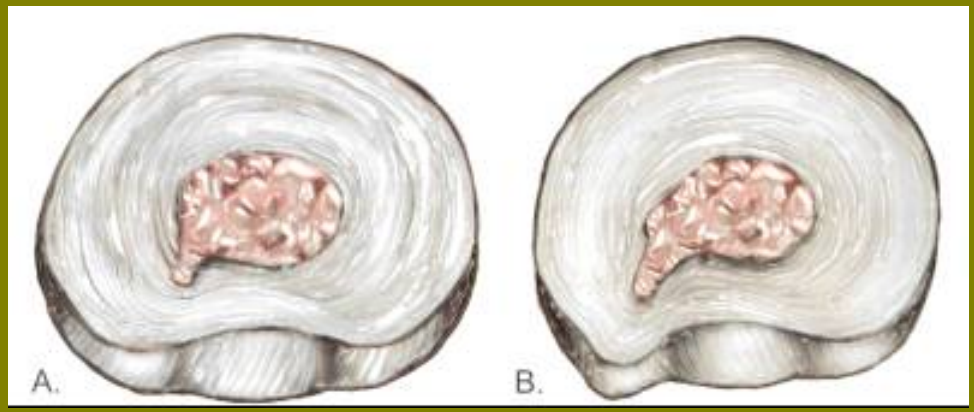
Facet joint, composed of articular processes of adjacent vertebrae, limits torsion and translation

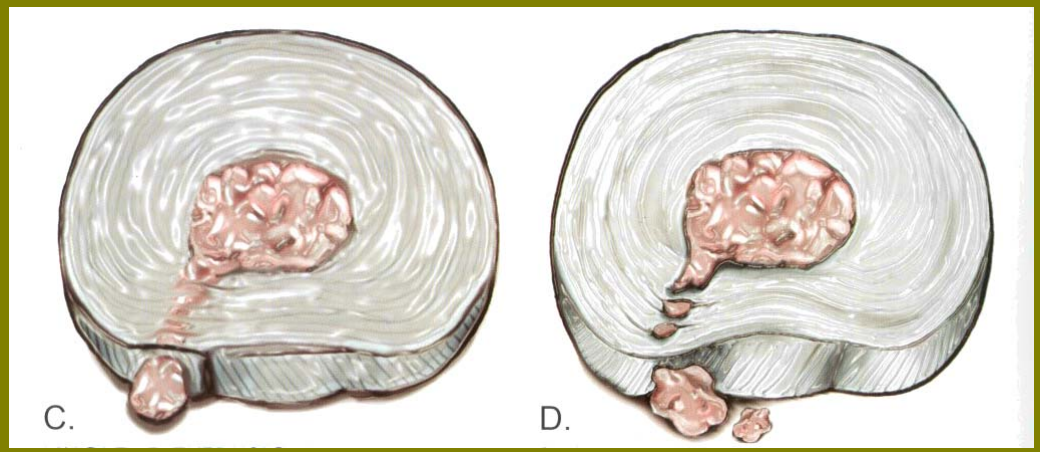
Degeneration of articular cartilage with synovial inflammation or capsular

重覆性勞損

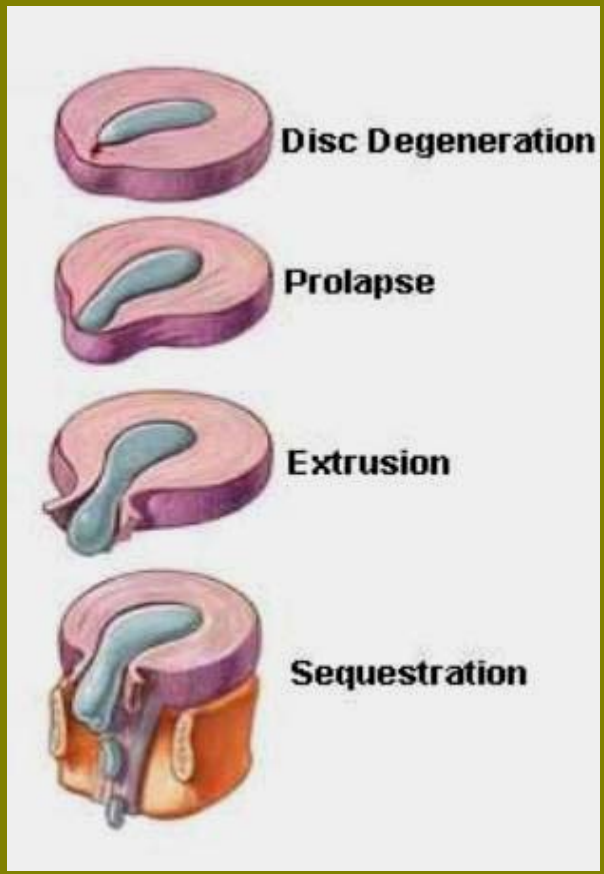


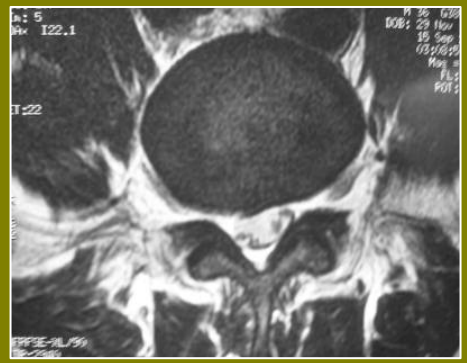
腰椎椎間盤突出

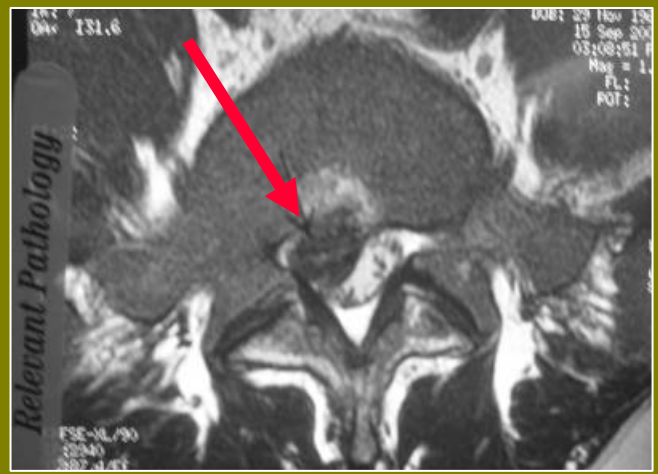


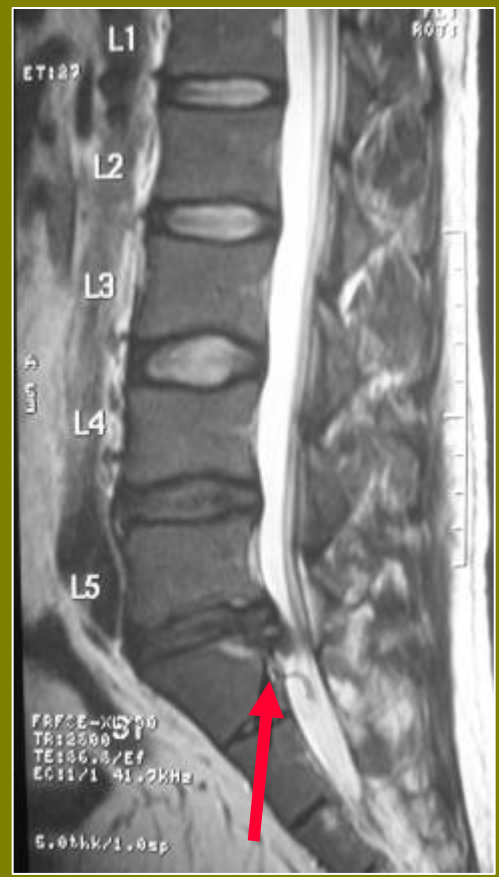


腰椎椎間盤突出

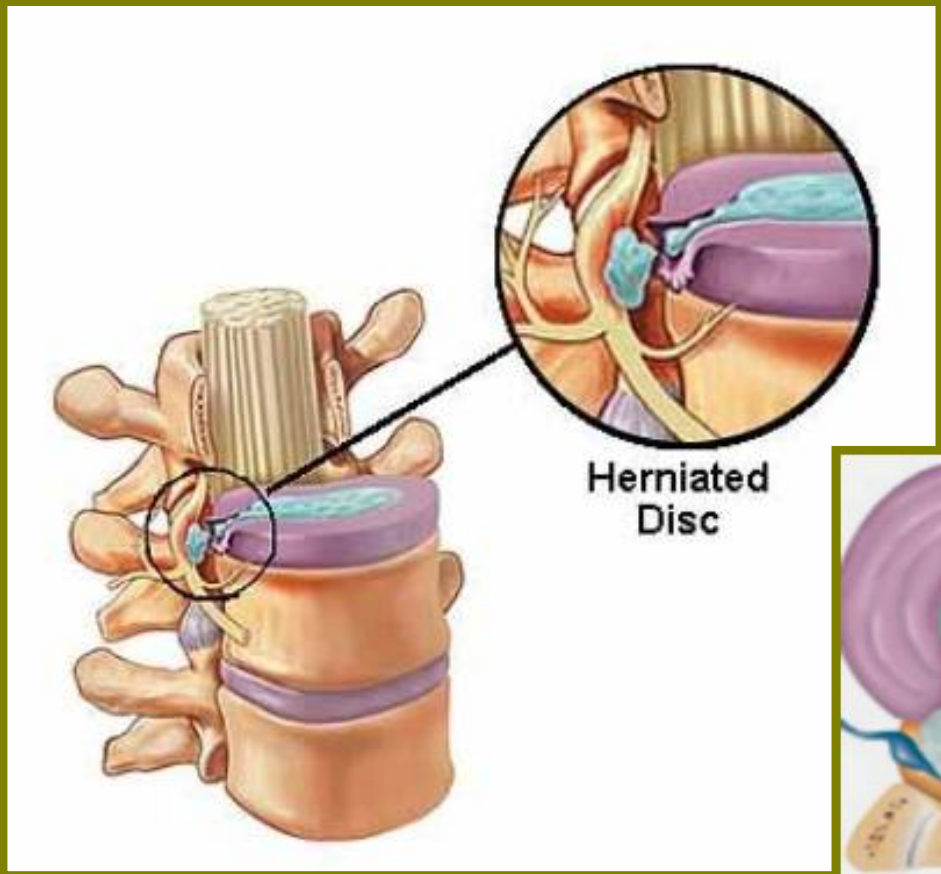

Disc Degeneration
Prolapse
Extrusion
Sequestration

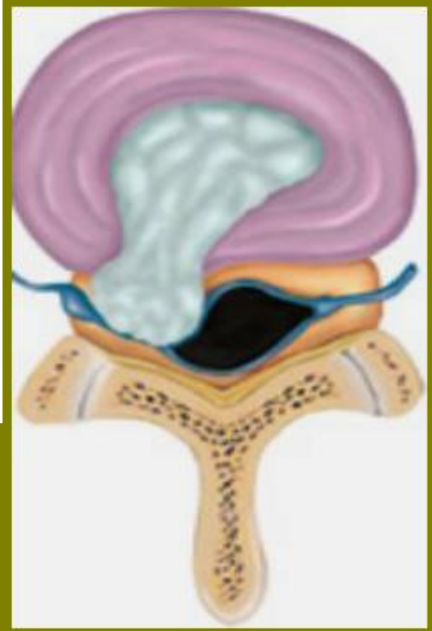


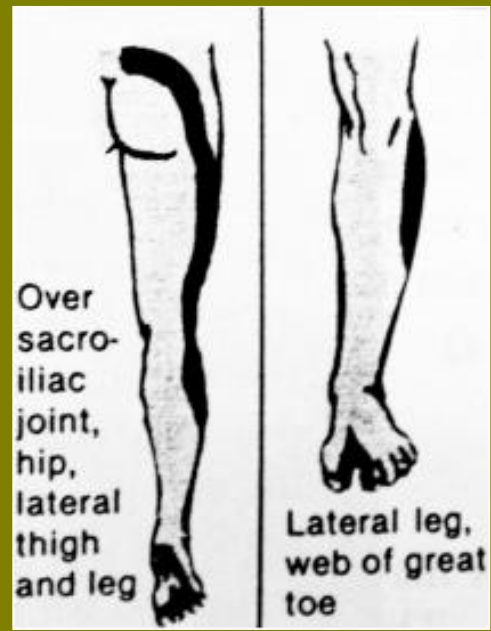

Relevant Pathology


L1
L2
L3
L4
L5

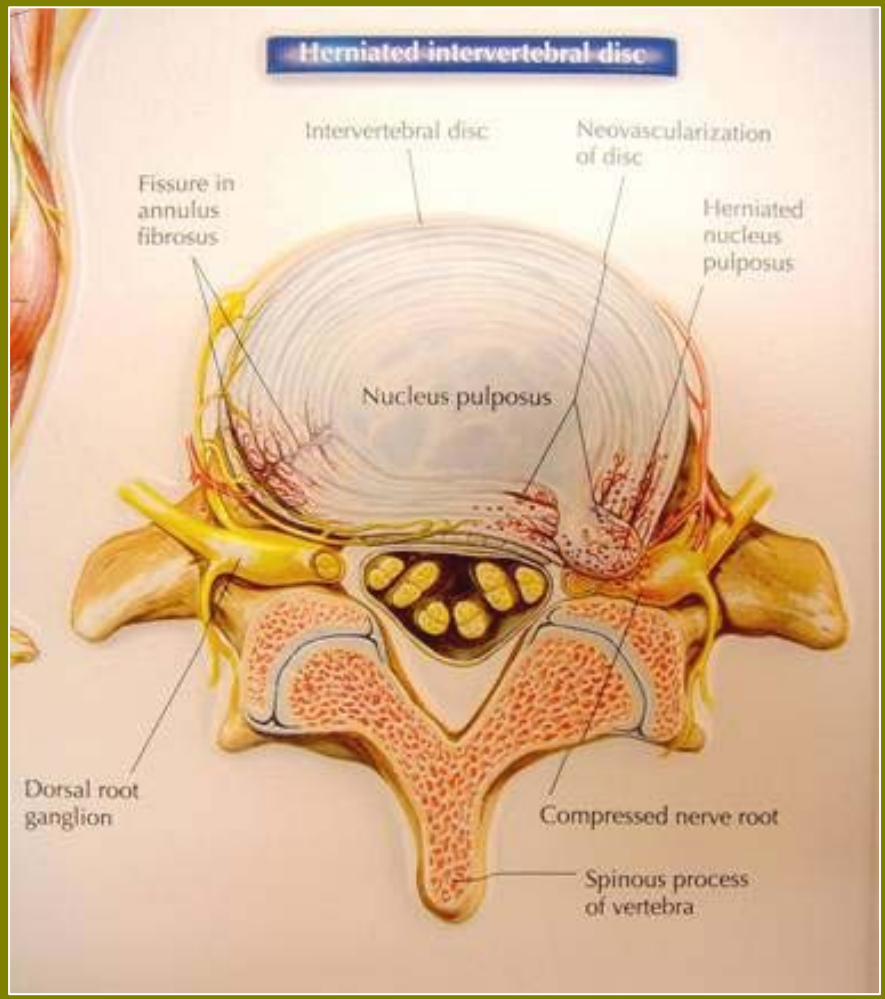
腰椎椎間盤突出

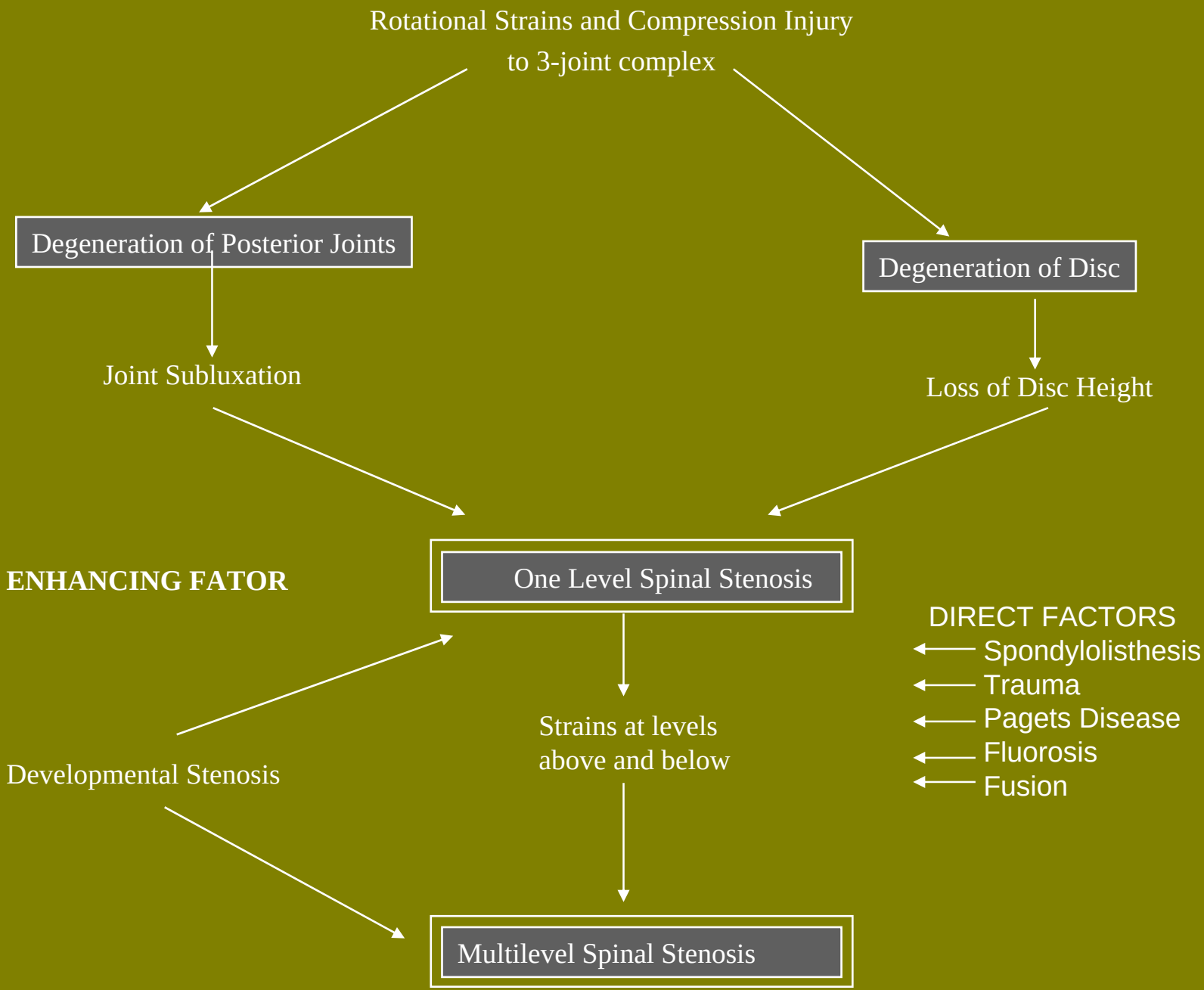

Herniated
Disc



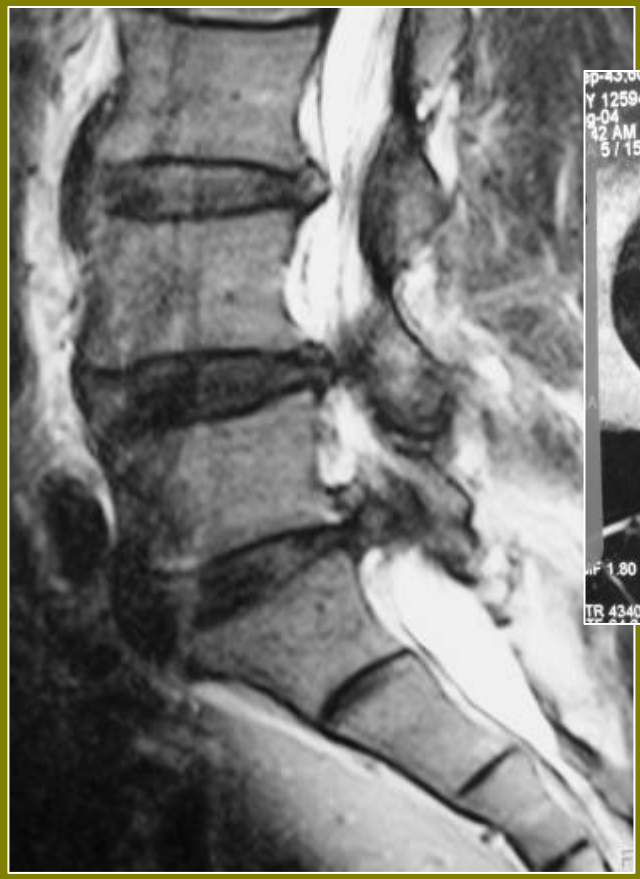

Over
sacro-
iliac
joint,
hip,
lateral
thigh
and leg
Lateral leg,
web of great
toe

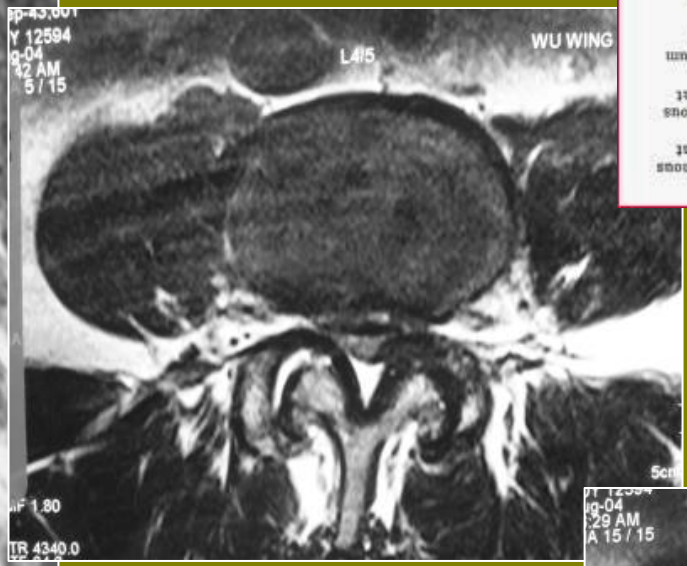
腰椎椎間盤突出

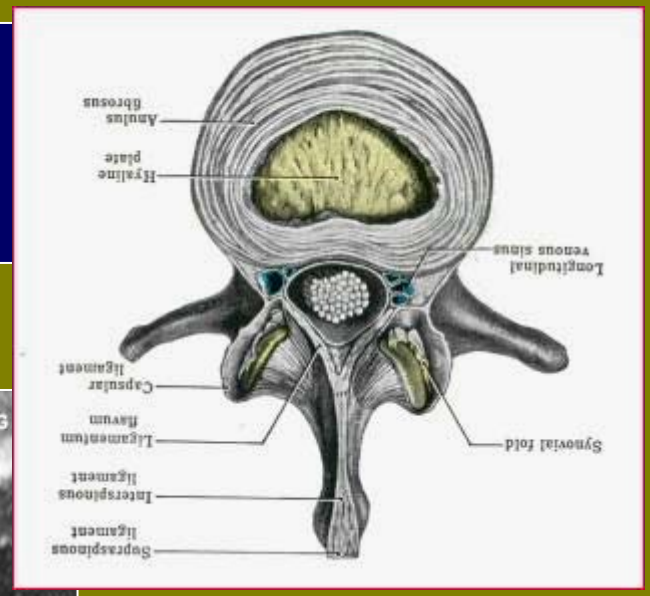

Herniated intervertebral disc
Intervertebral disc
Neovascularization of disc
Fissure in annulus fibrosus
Herniated nucleus pulposus
Nucleus pulposus
Dorsal root ganglion
Compressed nerve root
Spinous process of vertebra

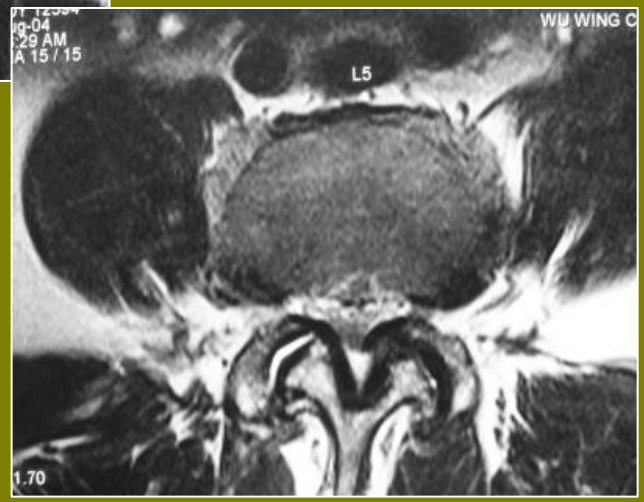

Rotational Strains and Compression Injury
to 3-joint complex
Degeneration of Posterior Joints
Degeneration of Disc
Joint Subluxation
Loss of Disc Height
ENHANCING FATOR
One Level Spinal Stenosis
DIRECT FACTORS
Spondylolisthesis
Trauma
Pagets Disease
Fluorosis
Fusion
Strains at levels
above and below
Developmental Stenosis
Multilevel Spinal Stenosis

腰椎管狭窄症




L4/5
WU WING

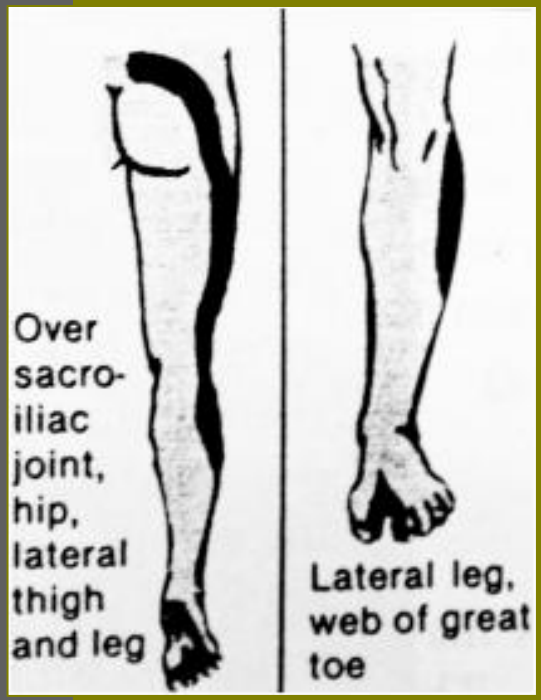

Annulus fibrosus
Hyaline plate
Longitudinal venous sinus
Capsular ligament
Ligamentum flavum
Synovial fold
Interspinous ligament
Supraspinous ligament

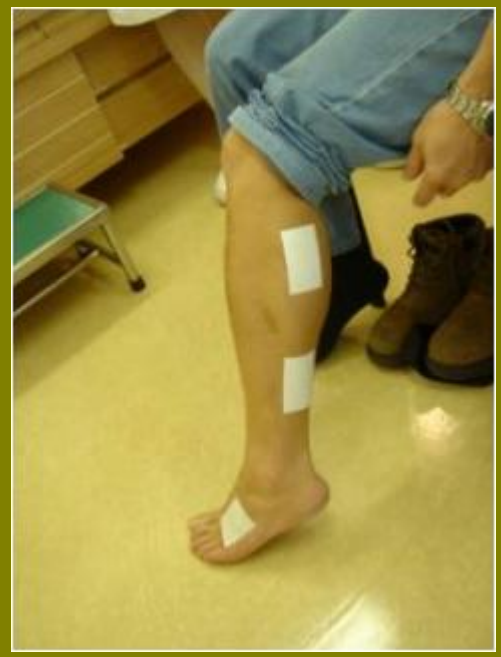

L5
WU WING C

腰椎管狹窄症的病徵

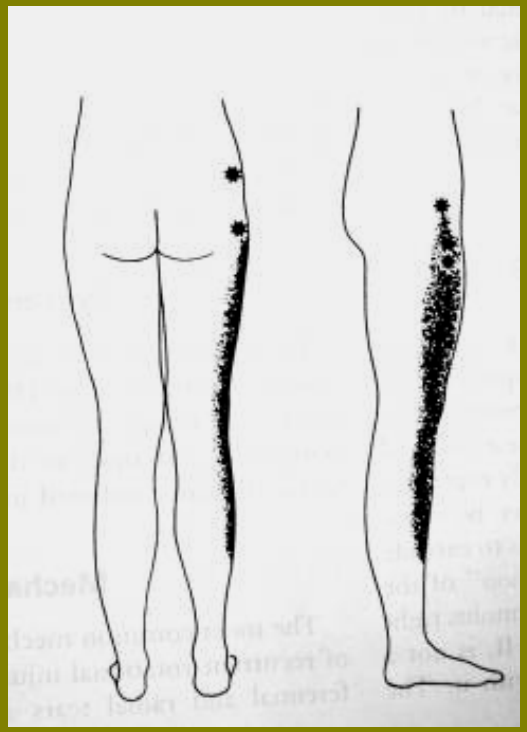
間歇性腿痛或背痛

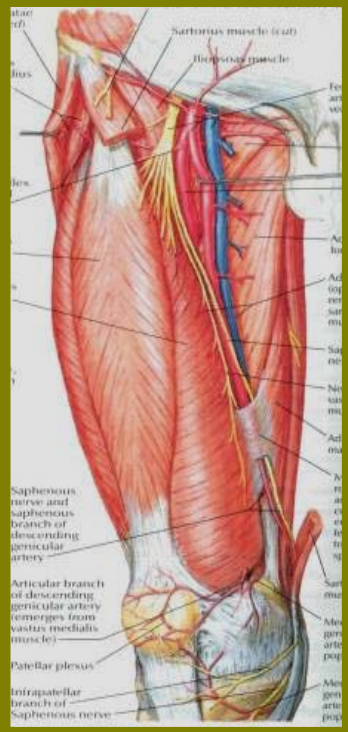
腳部麻痺無力

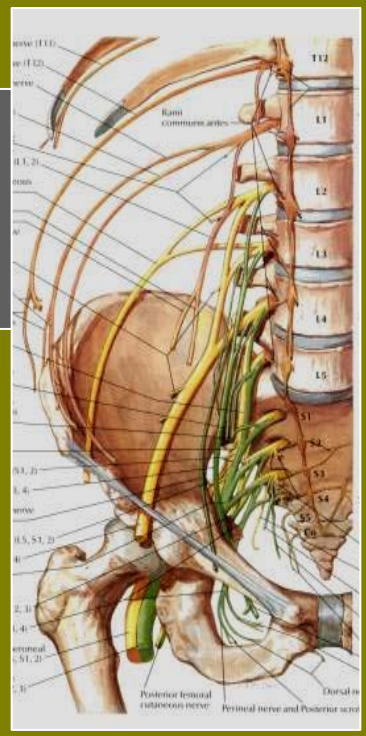


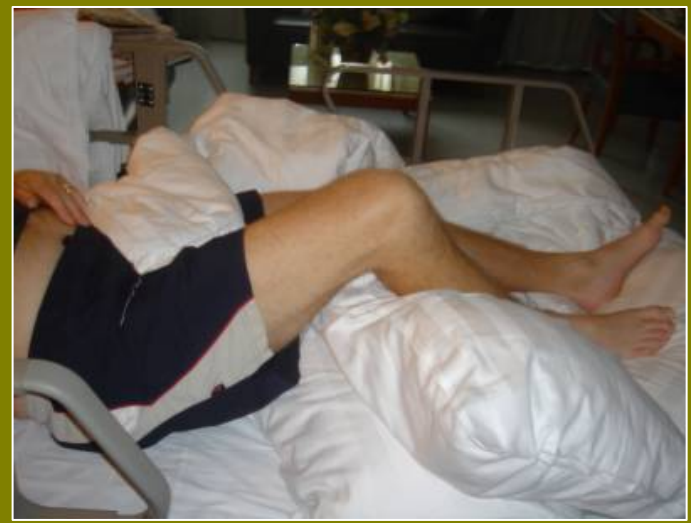


上腰椎退化的病徵




Sartorius muscle (cut)
Iliopsoas muscle
Saphenous nerve and saphenous branch of descending genicular artery
Articular branch of descending genicular artery (emerges from vastus medialis muscle)
Patellar plexus
Infrapatellar branch of Saphenous nerve


T12
L1
L2
L3
L4
L5
S1
S2
S3
S4
S5
Co
Rami communi arteo
Posterior femoral cutaneous nerve
Perineal nerve and Posterior scro



治理方法

薬物治療

新的藥物

- 消炎藥 **(COX 2)**
- 膠原素藥物 **(Glucosamine, chondritin sulphate)**
- 琉璃醣炭基酸 **(Hyaluronic acid)**

消炎藥

不等於抗生素

副作用

- 胃痛、潰瘍
- 腎衰竭
- 肝衰竭
- 心臟、血管

三代消炎藥

- 第一代 : **eg, Voltaren**
- 第二代 : **eg, Celebrex, Vioxx**
- 第三代 : **eg, Arcoxia, Bextra**

補充軟骨藥物
(Chondroprotective agents)

葡萄糖胺及軟骨素
(Glucosamine and Chondroitin sulphate)

- 病情輕者有用
- 療效不顯著

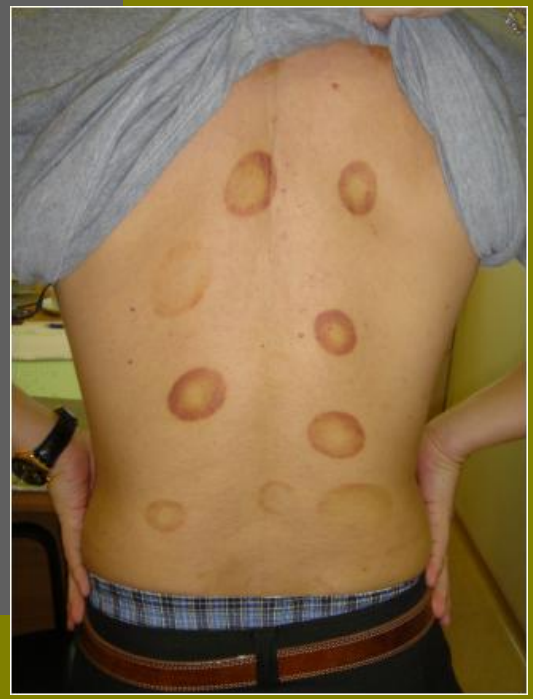
介用於以下情況

- 薄血丸
- 心律不常

物理治療

類似方法

- 按摩、推拿
- 針灸
- 整脊

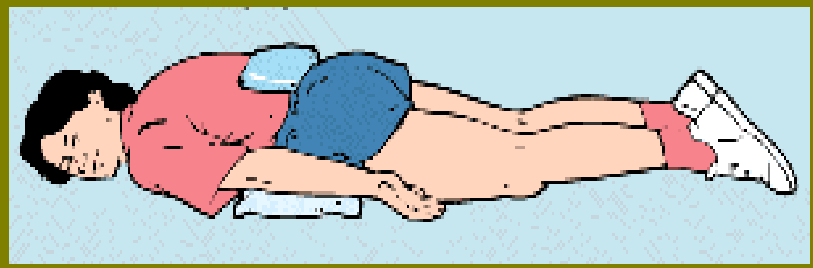


物理治療

目標

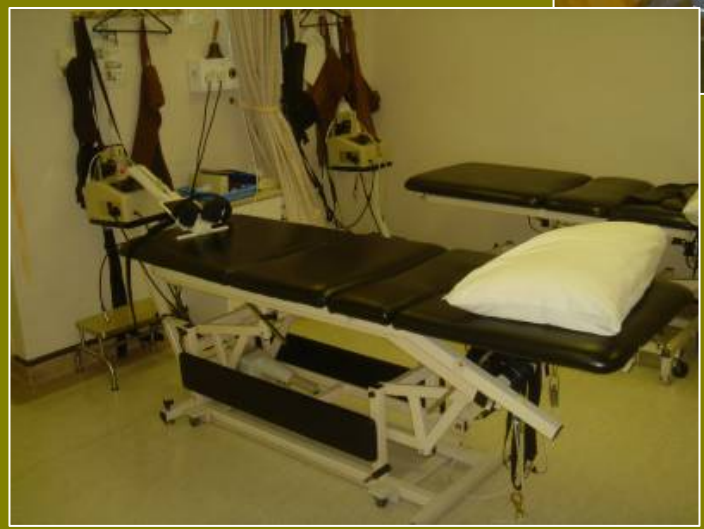
- 止痛
- 強化腰部被免腰背痛復發

熱敷、冷敷

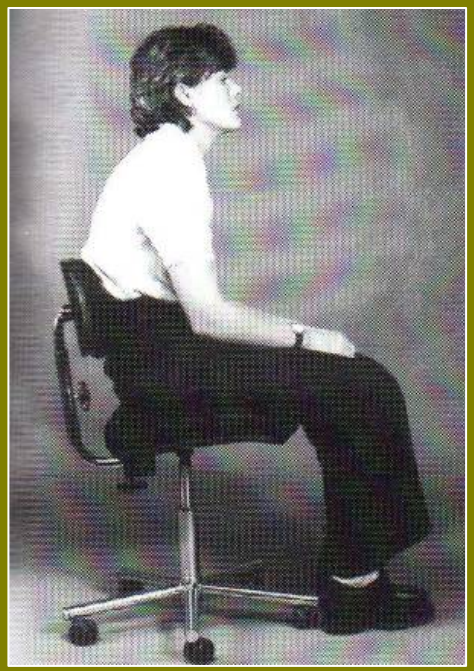


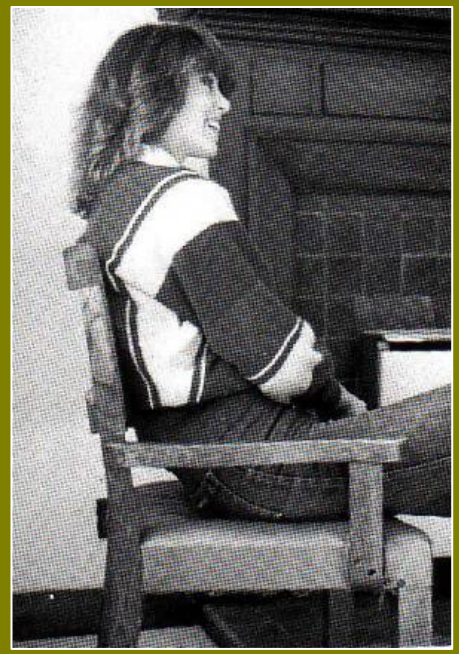
器械治療

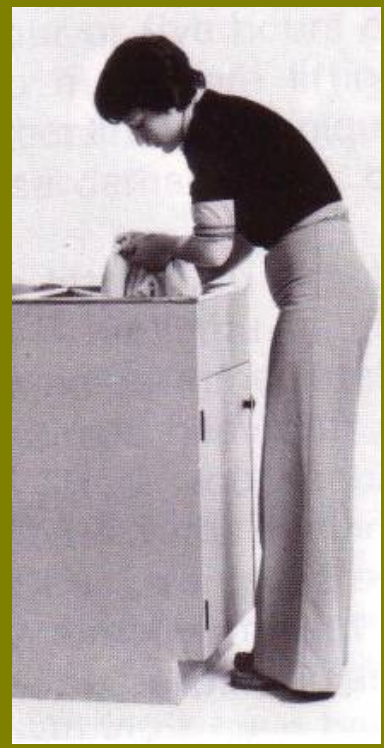
- 超聲波
- 紅外線治療
- 干擾波電療
- 拉腰等

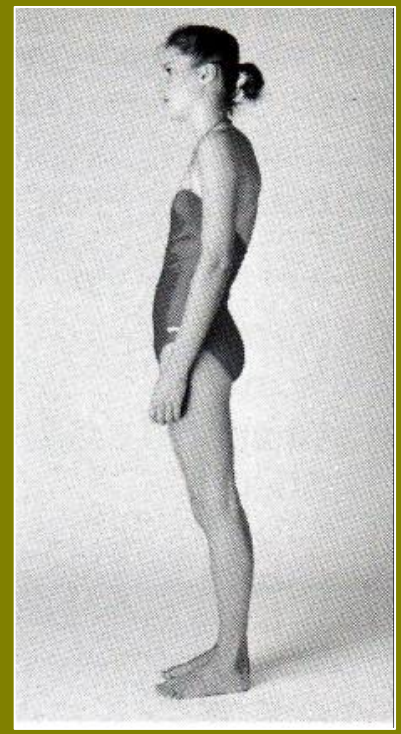


正確體態及姿勢之重要

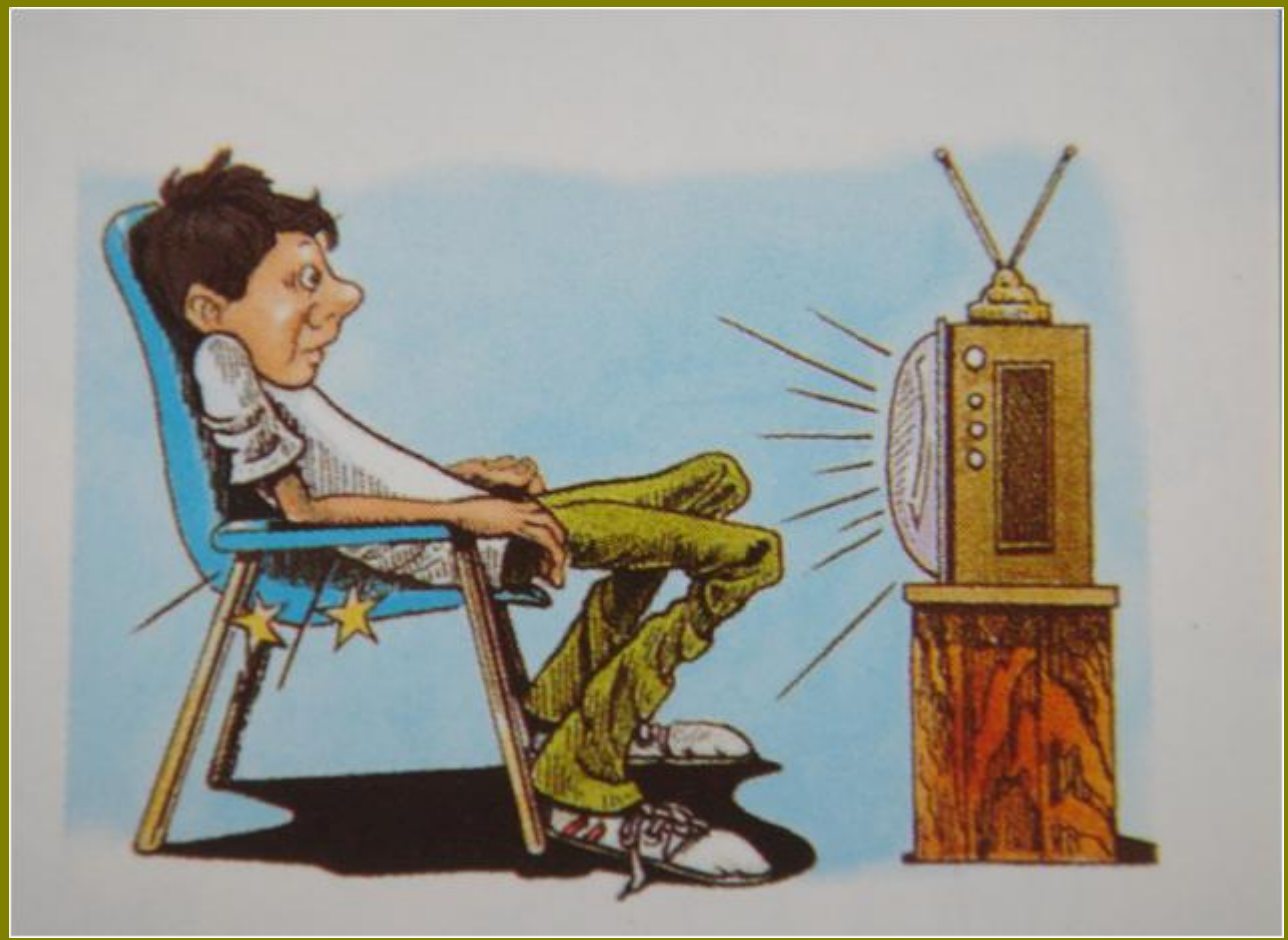




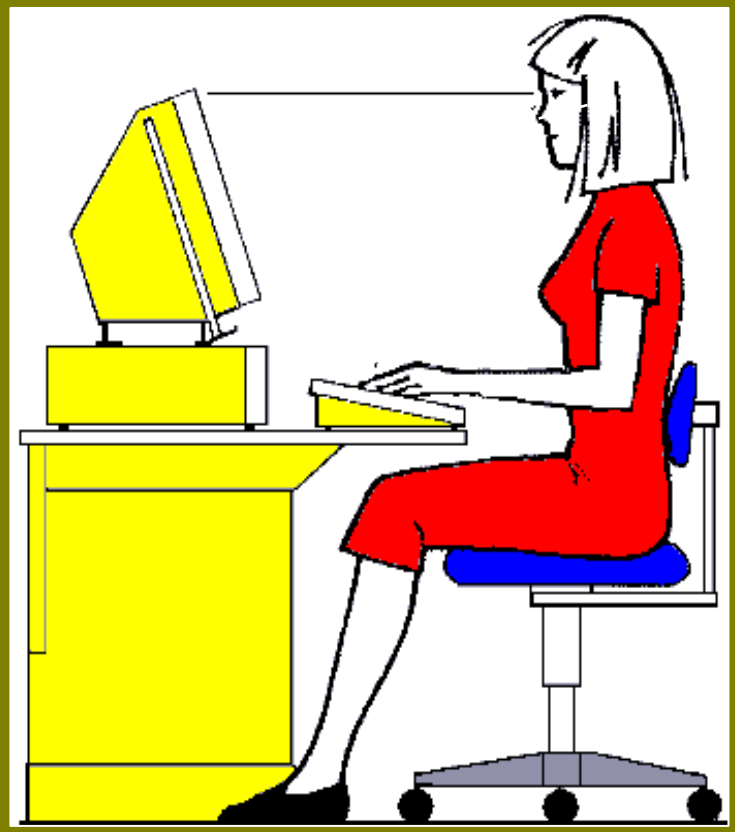




正確體態及姿勢之重要



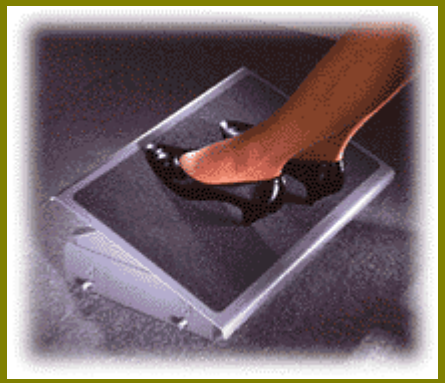
電腦操作的正確姿勢



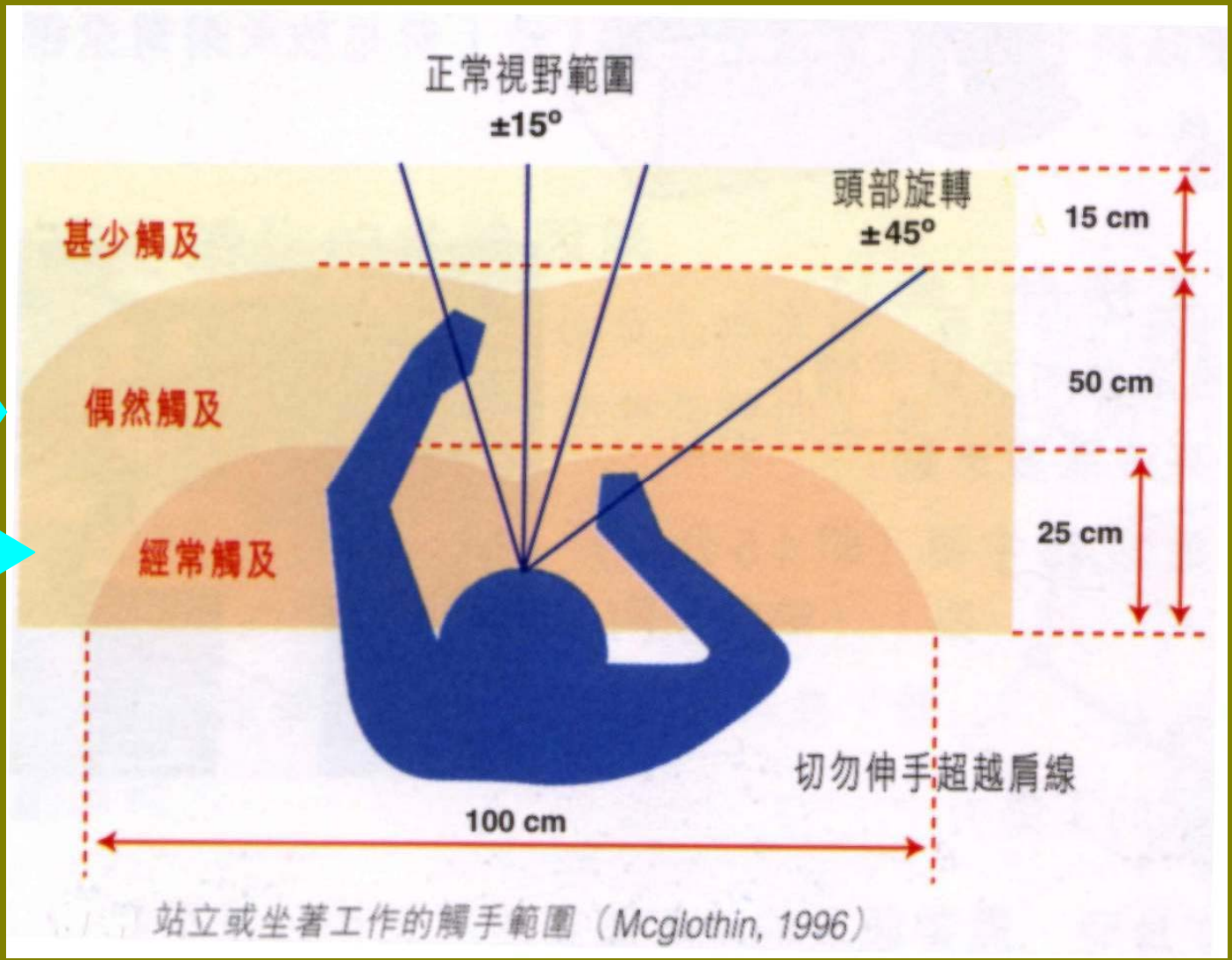
- 視距約為350 – 600 毫米
- 頭部應向下傾10°– 20°
- 手肘應保持屈曲於80°– 100°之間
- 手腕向上微微傾斜，但不應超過10°
- 手指操作電腦鍵盤的力度要適中
- 腰部應保持挺直，靠緊椅背
- 大腿應保持平放在椅子上
- 膝部前方應有足夠空間
- 雙腳應平放地上或腳踏上

簡易處理方法

常見的人體功效學輔助器具



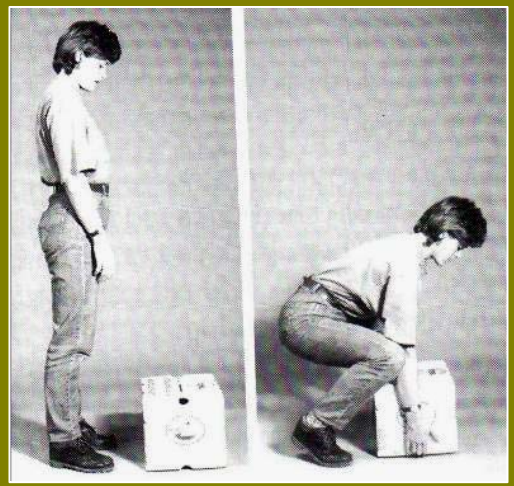
工作台佈局



站立或坐著工作的觸手範圍（Mcglothin, 1996）

提舉重物

小心提舉重物

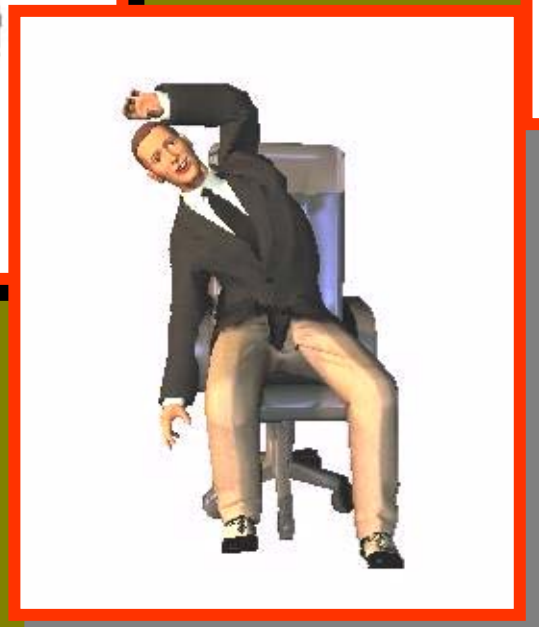


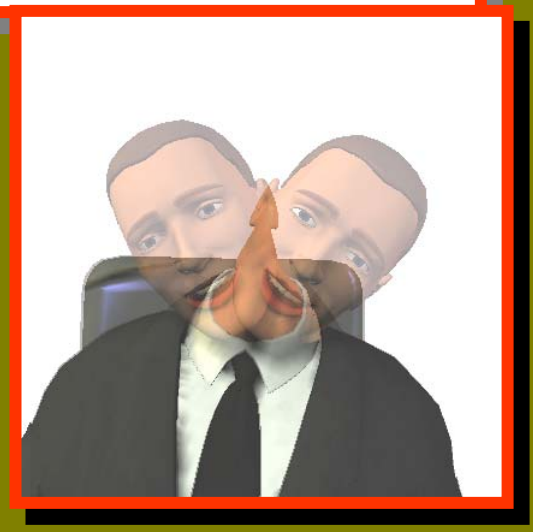
工作習慣(Work Habits)

工作習慣(Work Habits)

工作習慣(Work Habits)

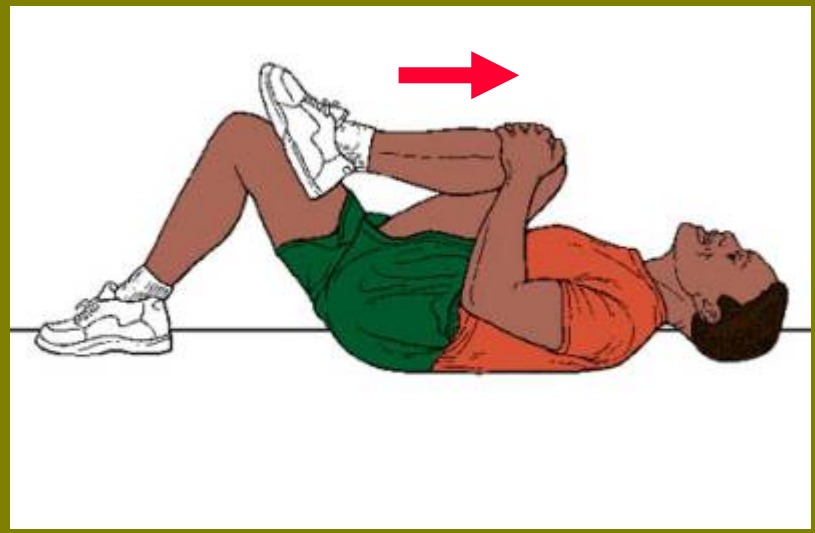
辦公室運動

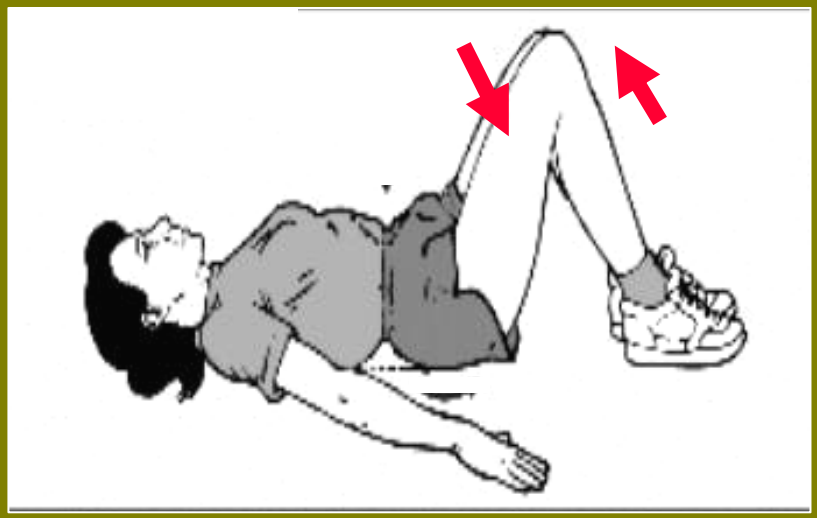




運動治療

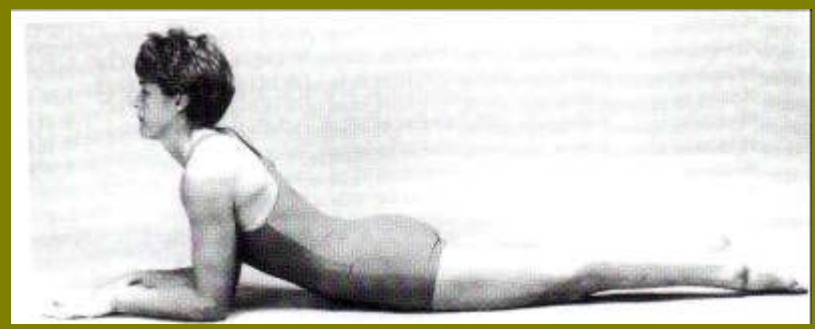
- 漸次加強背部柔韌度
- 強化背部肌肉及腹肌

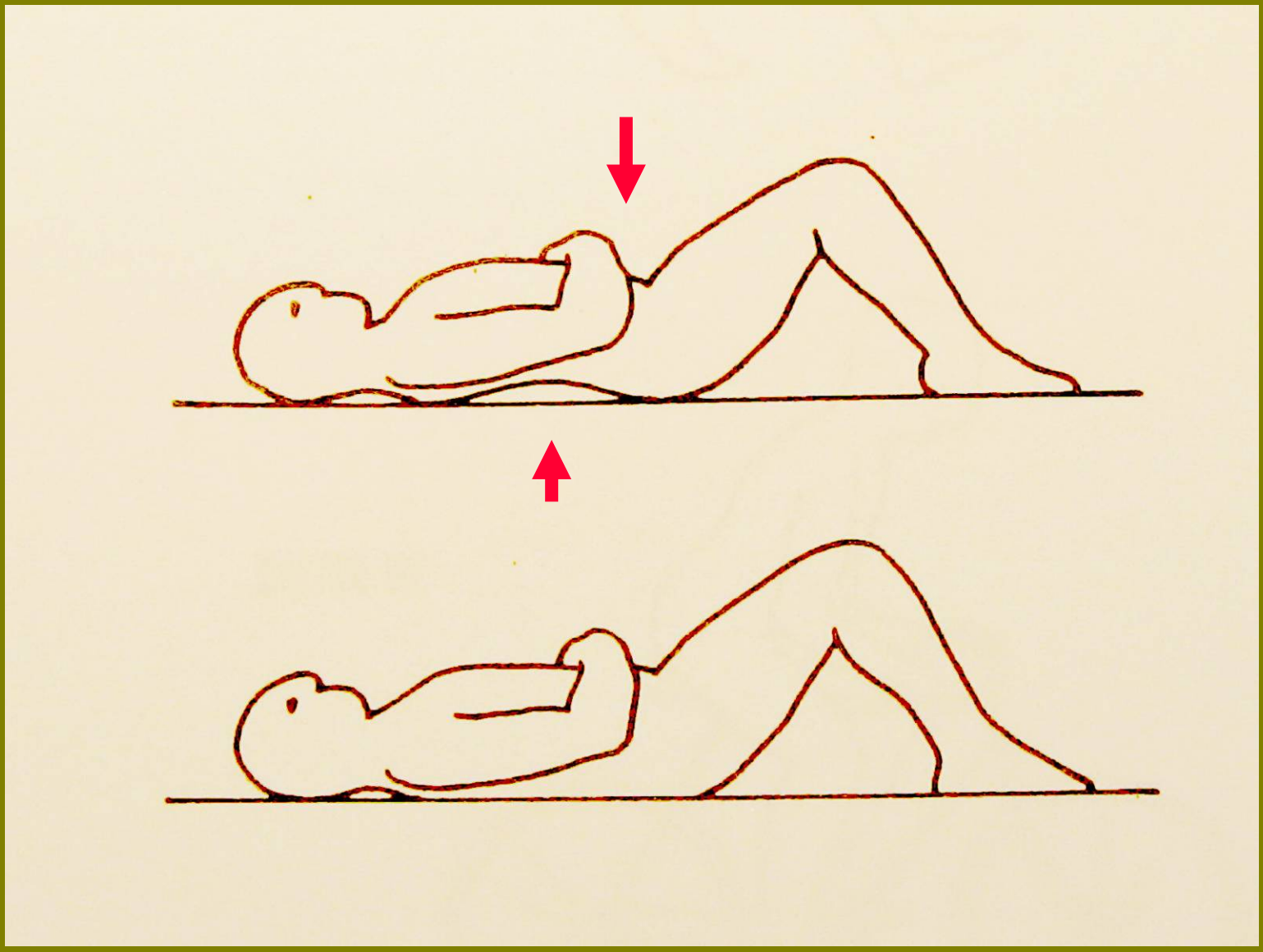


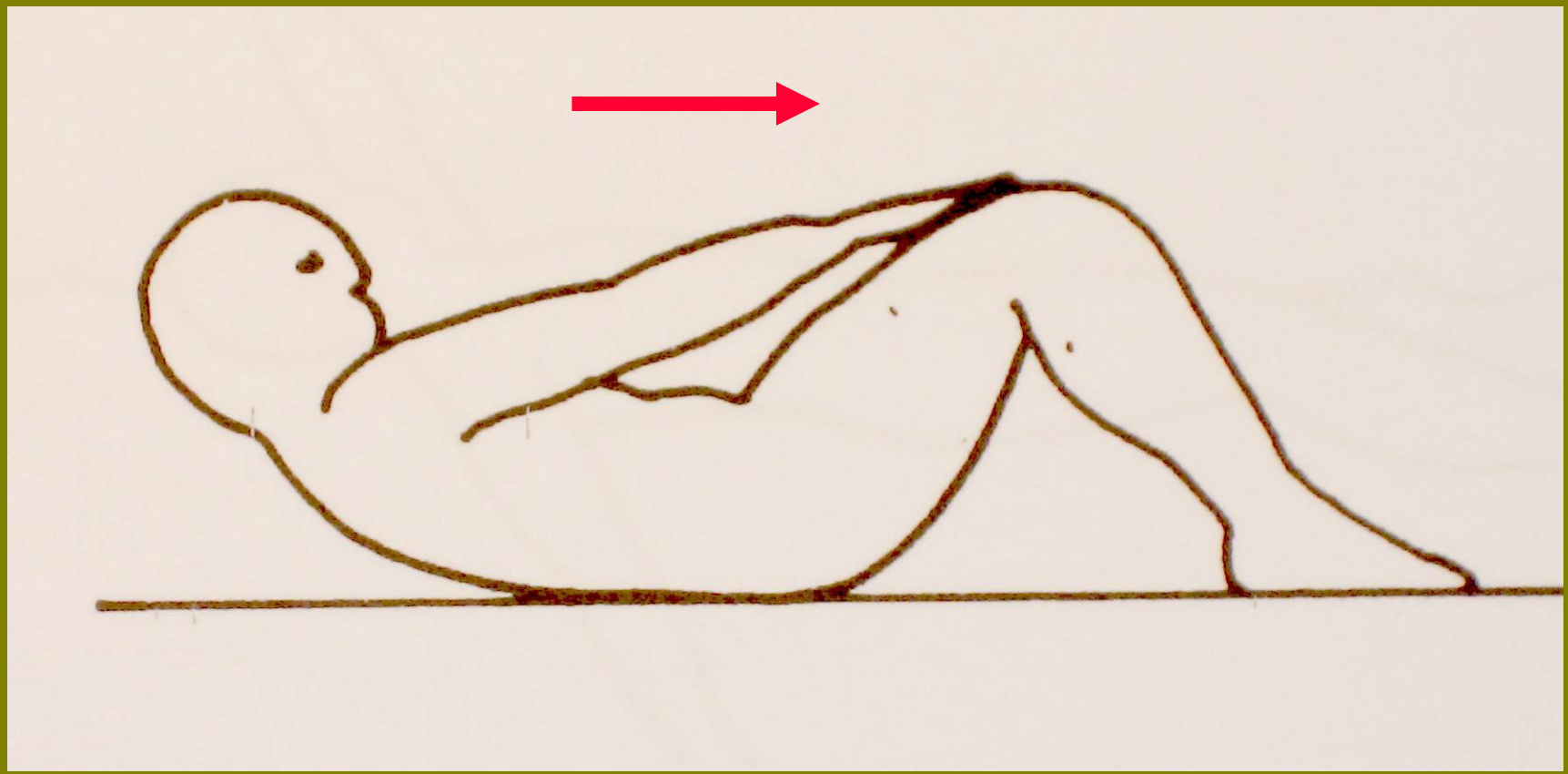


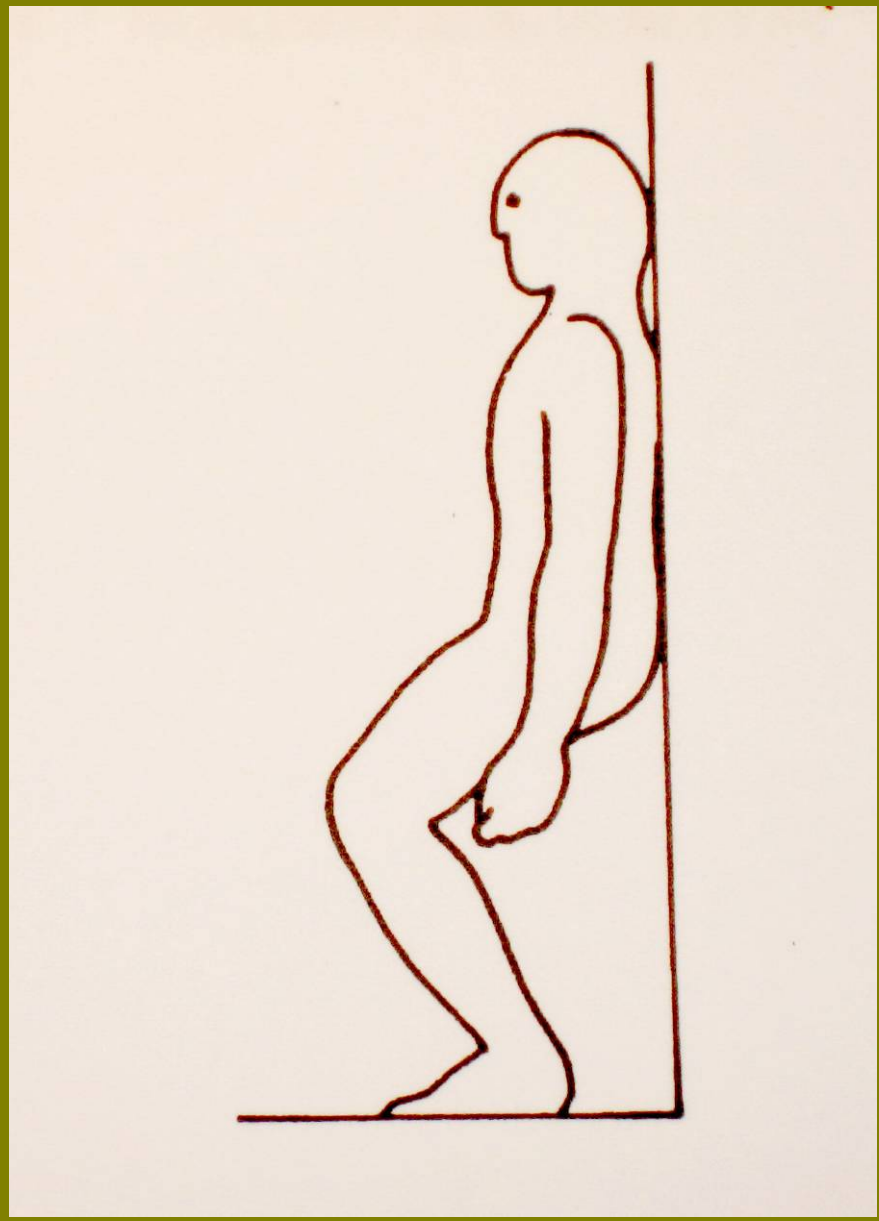
運動治療

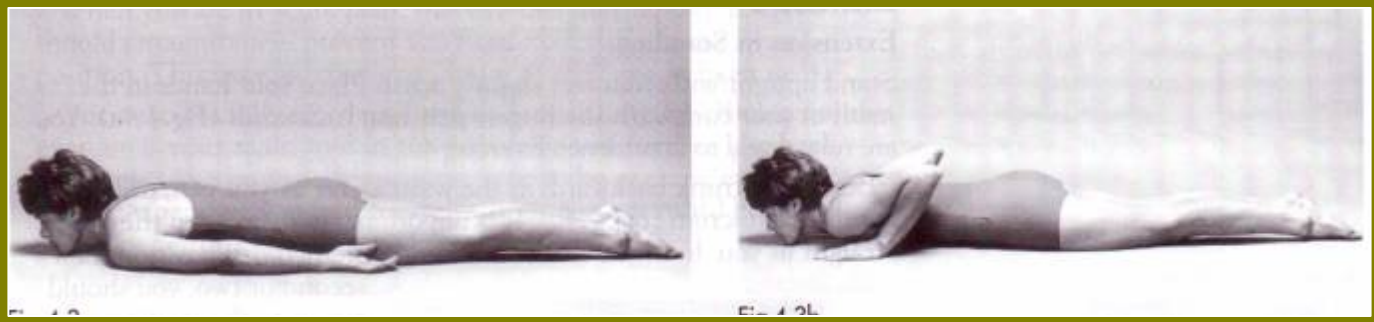
- 每次五分鐘
- 每二小時重覆運動



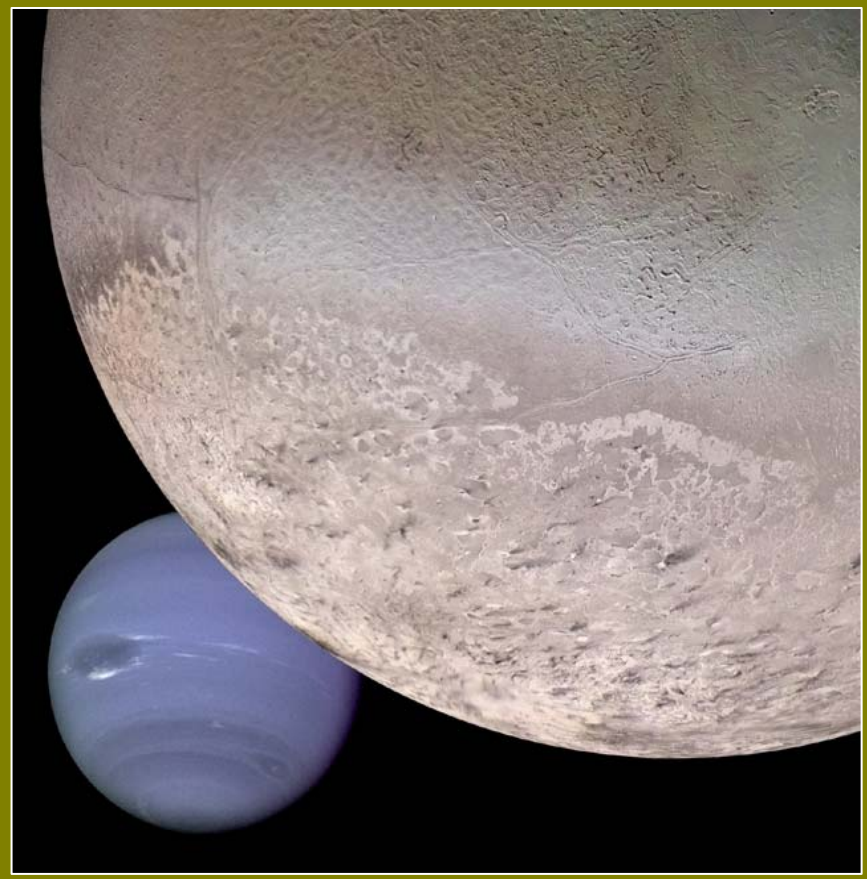






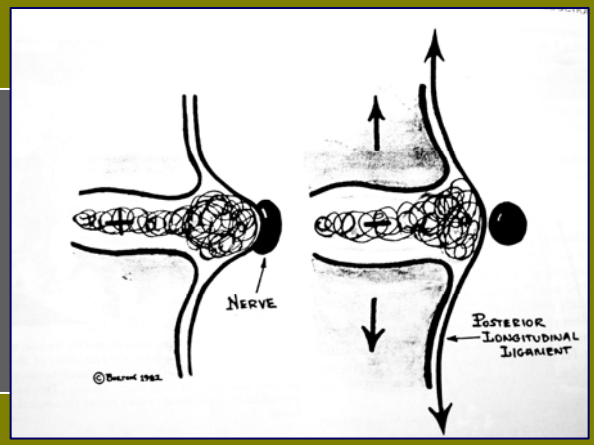


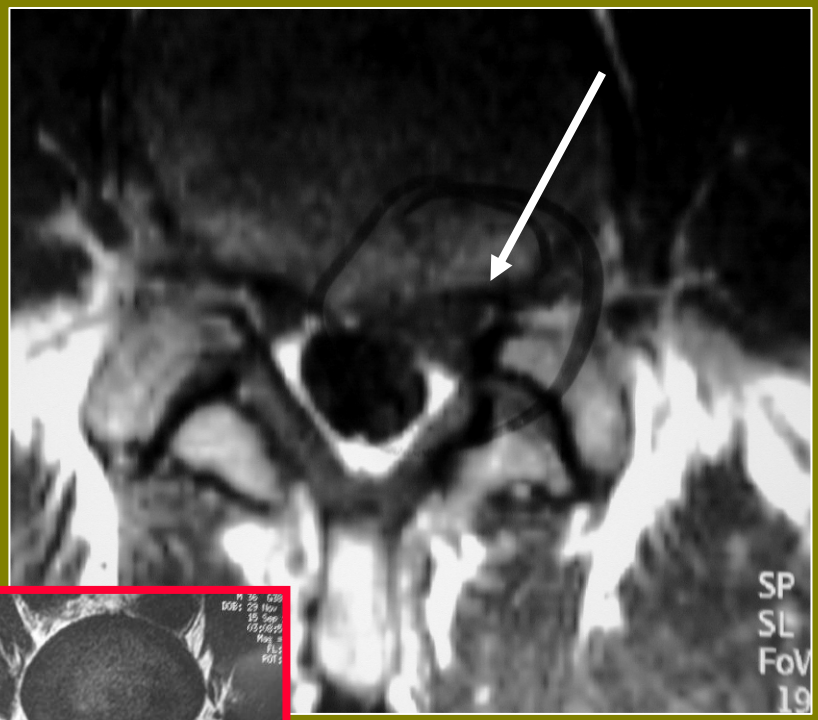
手術治理方法

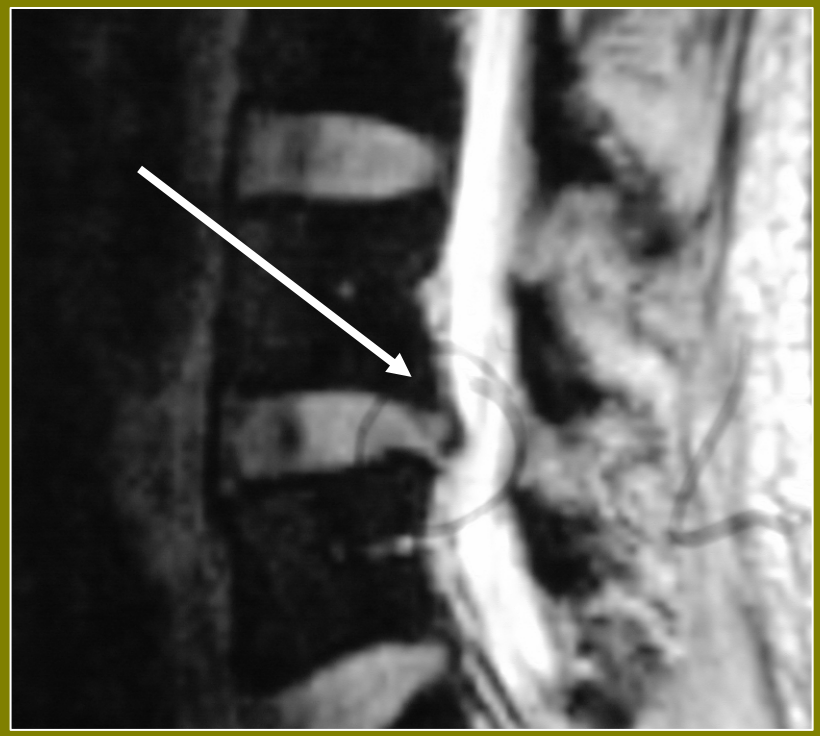


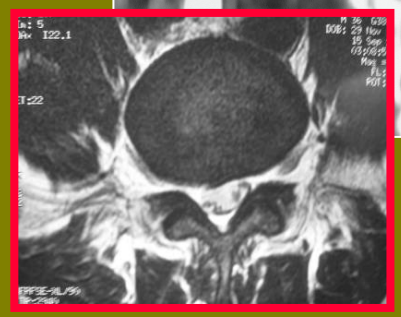
腰椎椎間盤突出

PID – prolapsed intervertebral disc

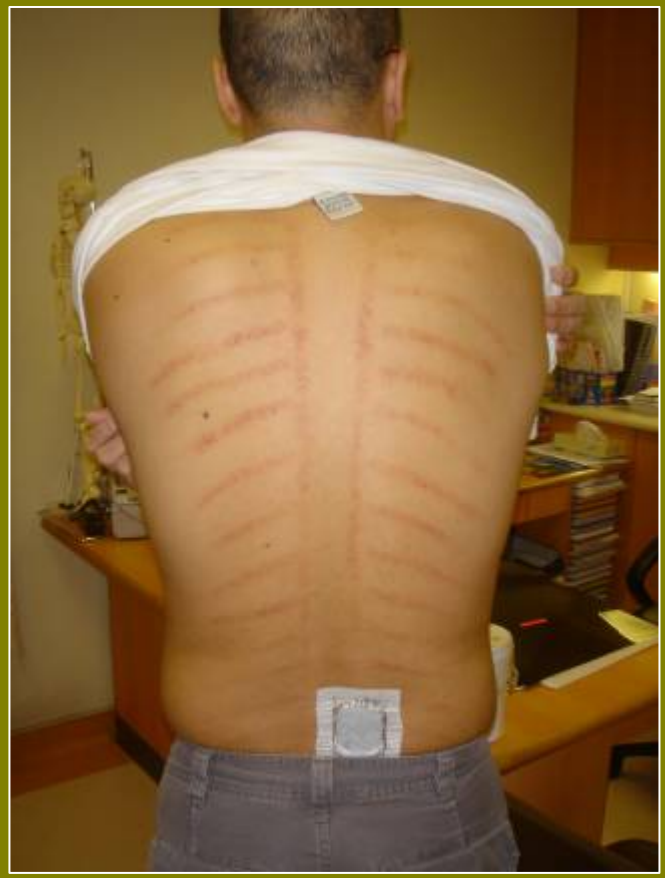


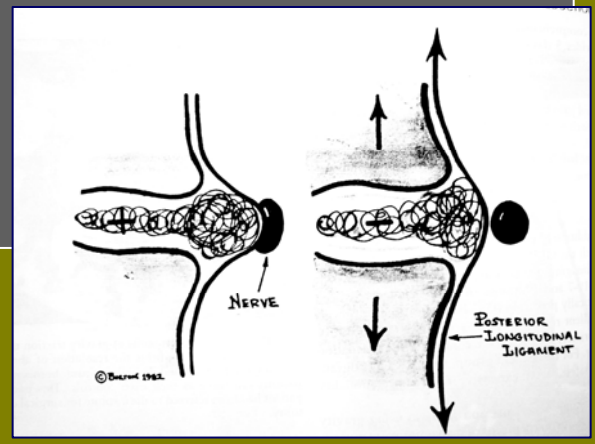


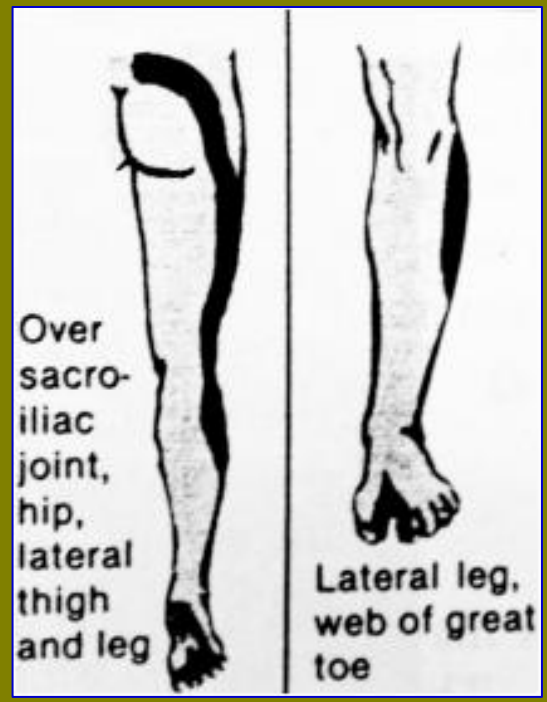




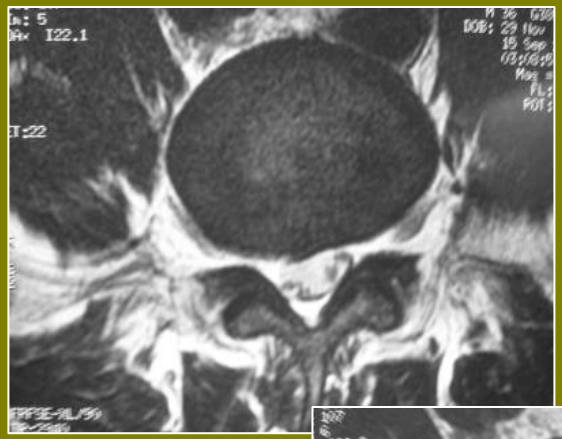
腰椎椎間盤突出

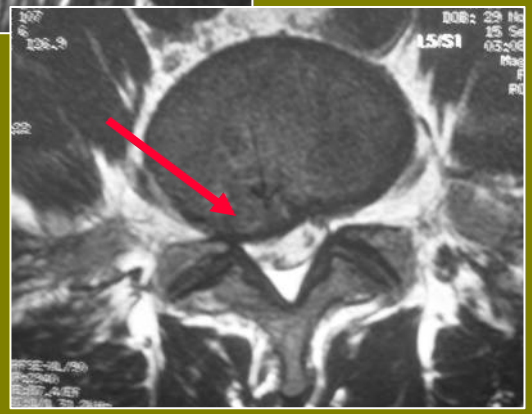


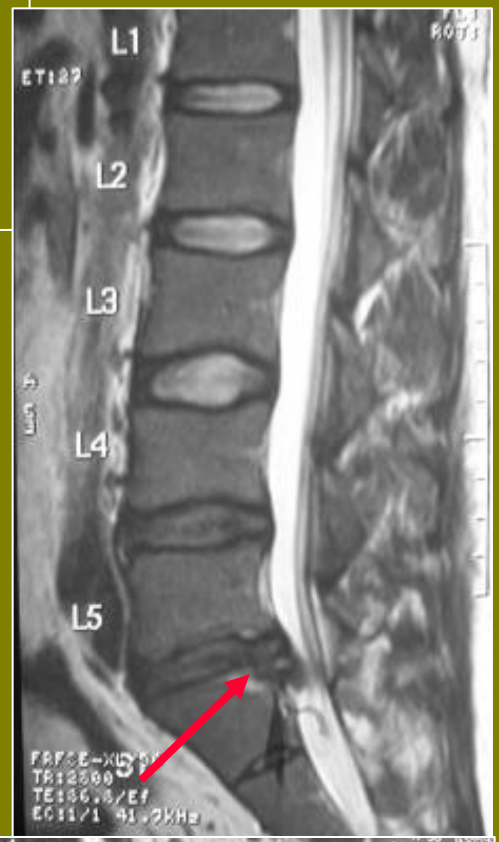

NERVE
POSTERIOR
LONGITUDINAL
LIGAMENT

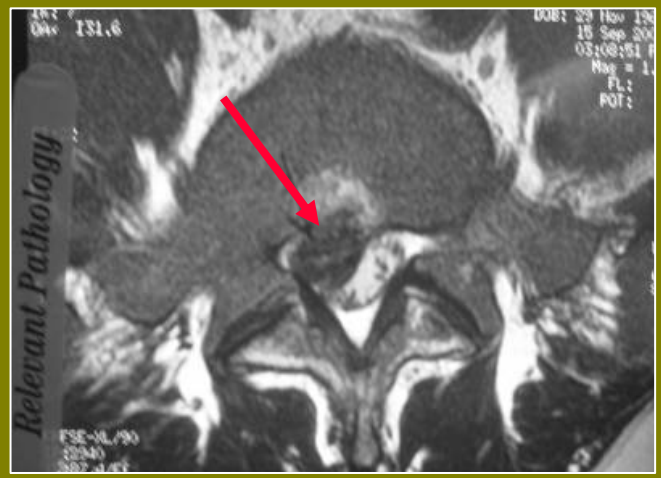

Over sacro-iliac joint, hip, lateral thigh and leg
Lateral leg, web of great toe

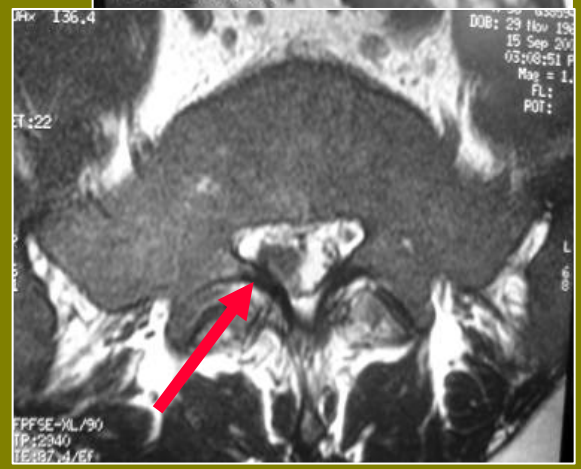
腰椎椎間盤突出





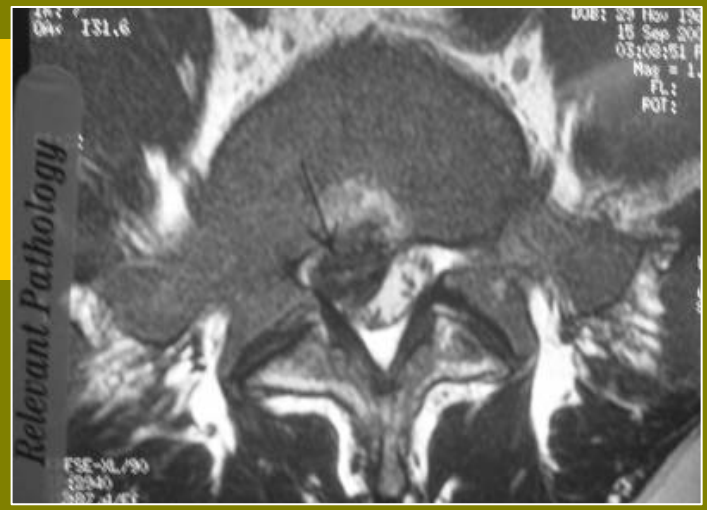


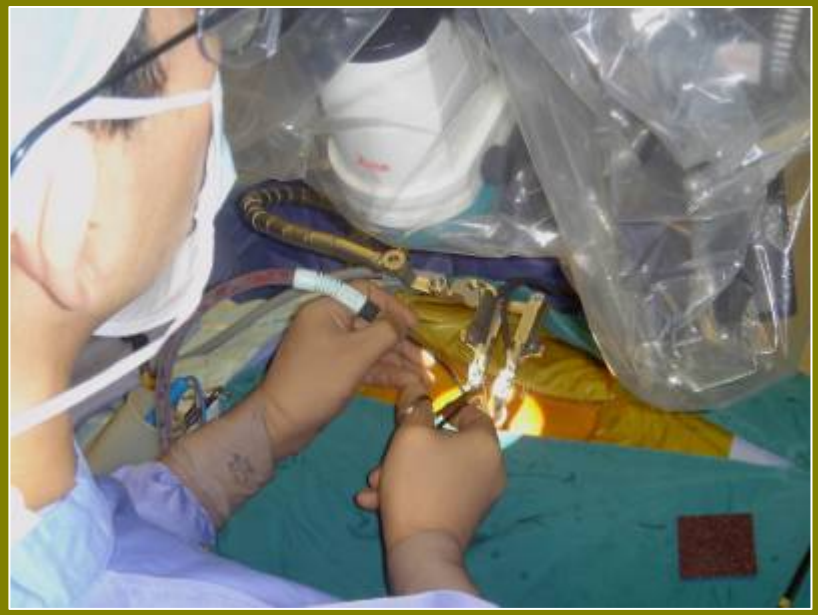




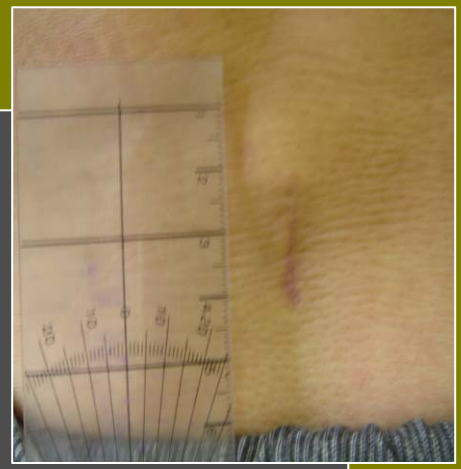
微創手術 - 椎間盤突出切除

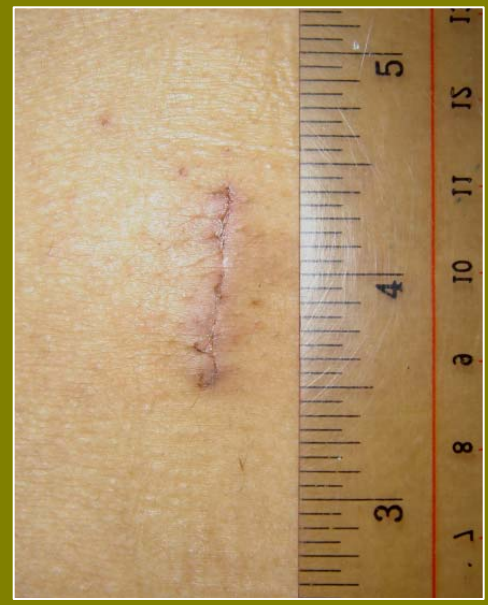
腰椎椎間盤突出

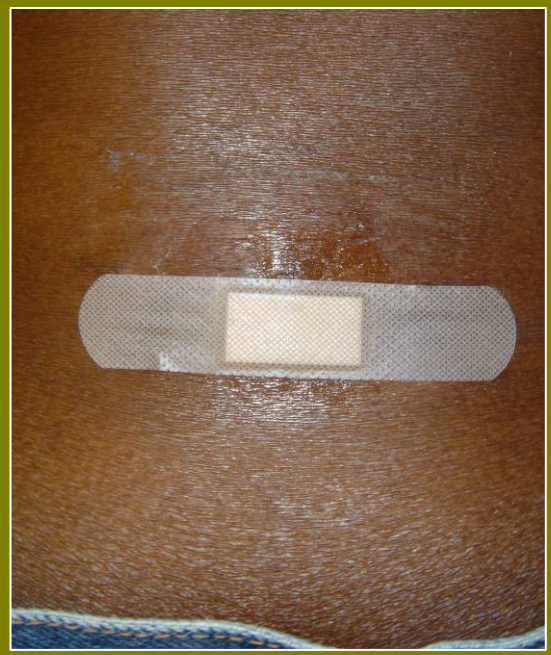


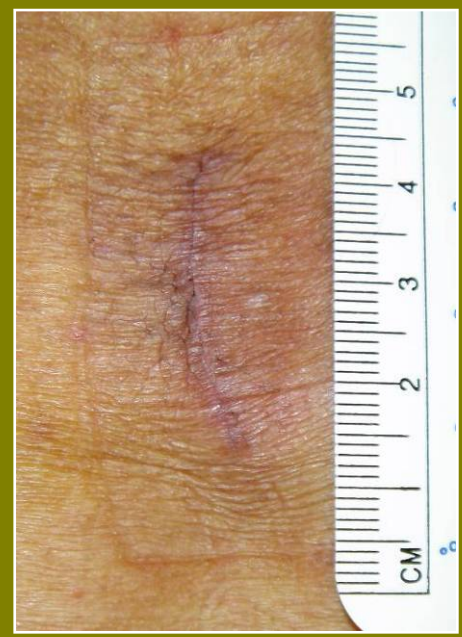


傷口細小
減小痛楚
加快康復
- 四個不同病者之傷口

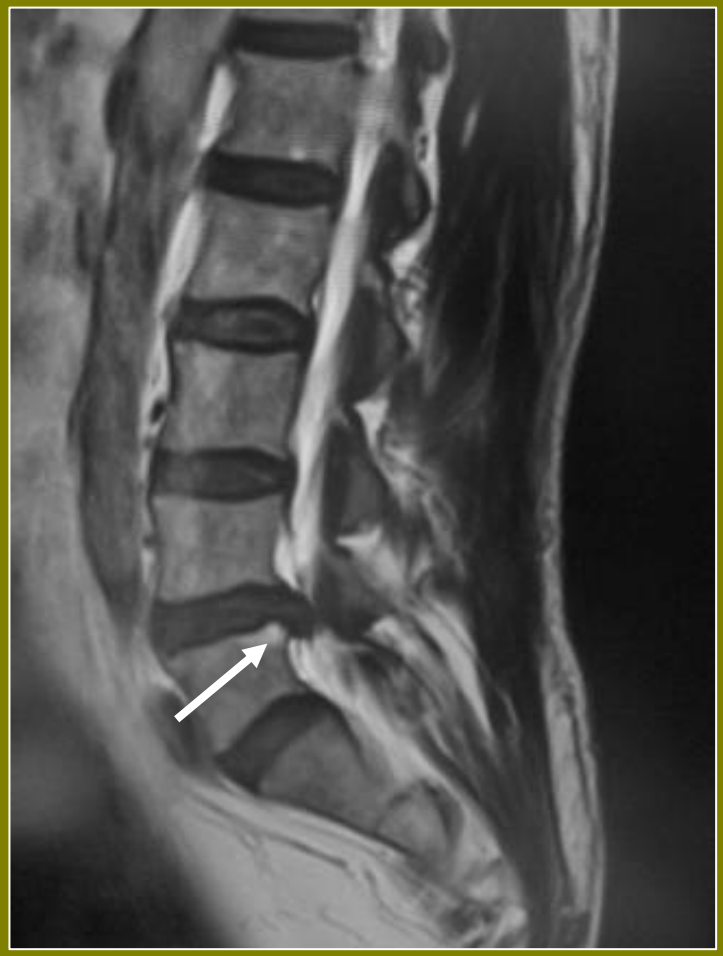


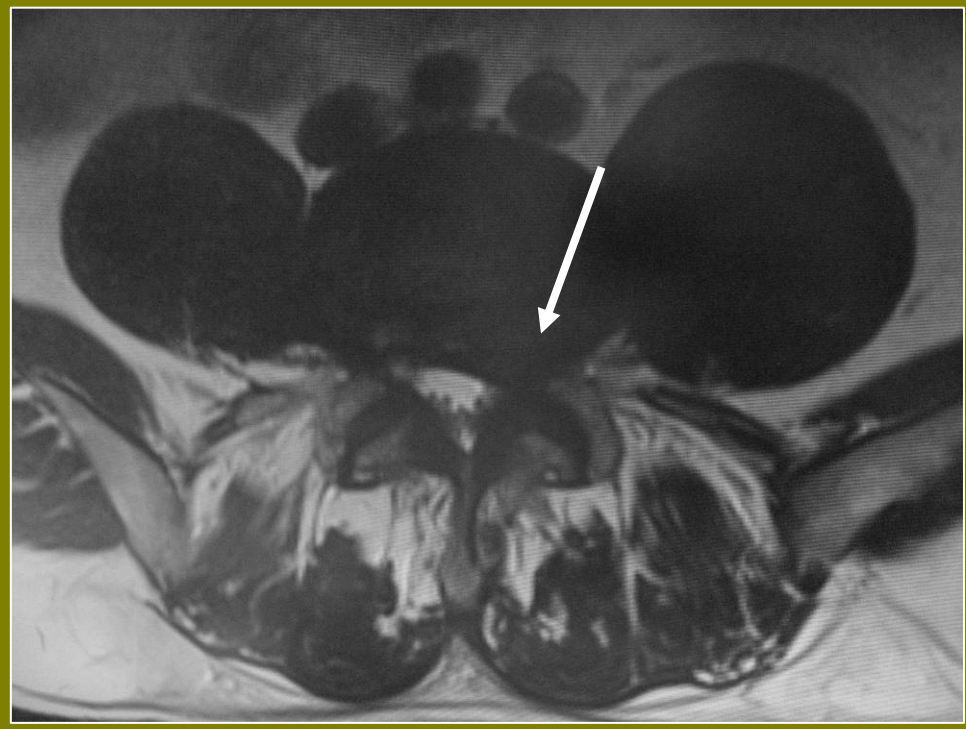






腰椎椎間盤突出

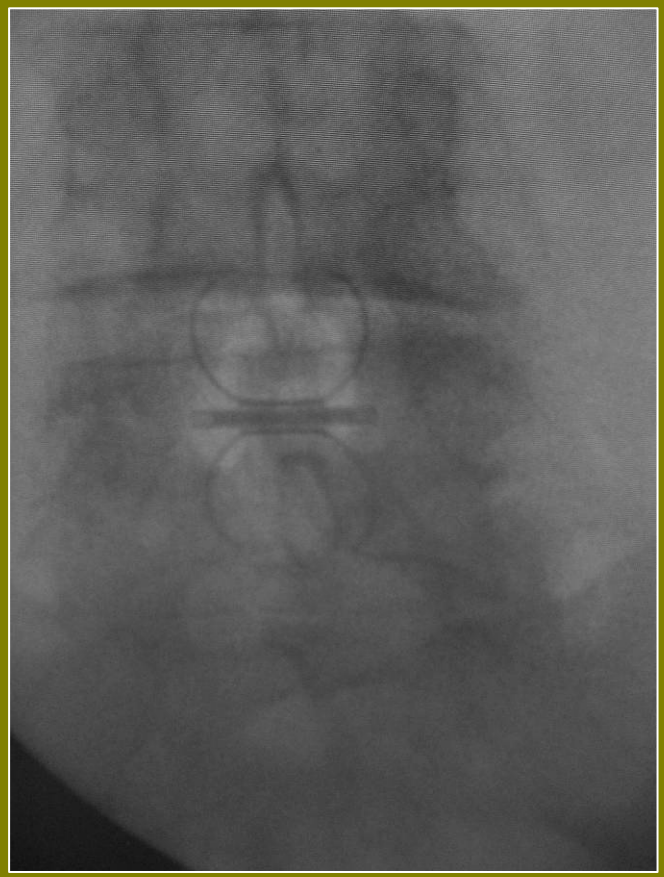


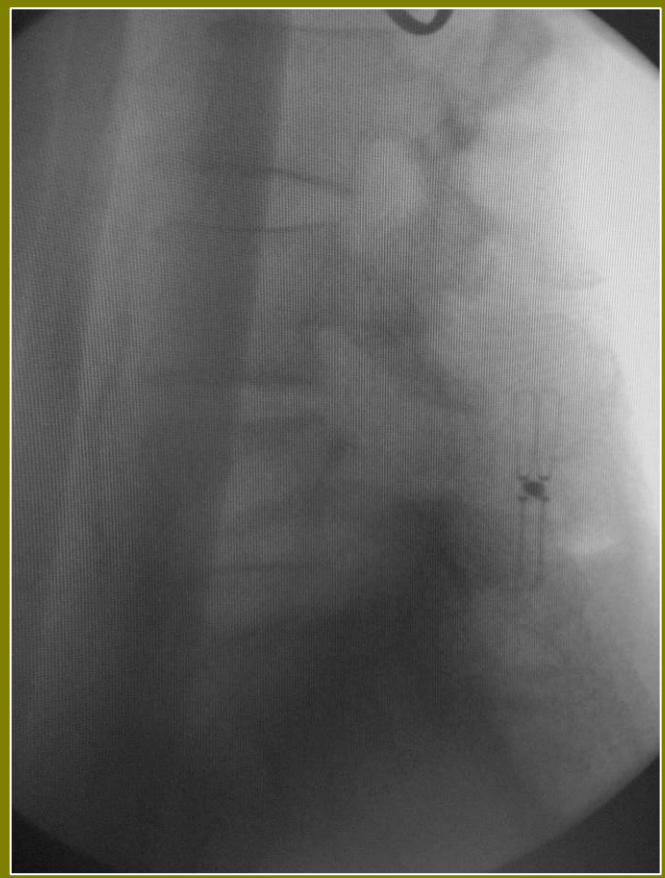


腰椎椎間盤突出

椎間盤突出切除

＋ 棘突間支架





腰椎椎間盤突出

椎間盤突出切除
＋ 棘突間支架

微創腰椎手術儀器

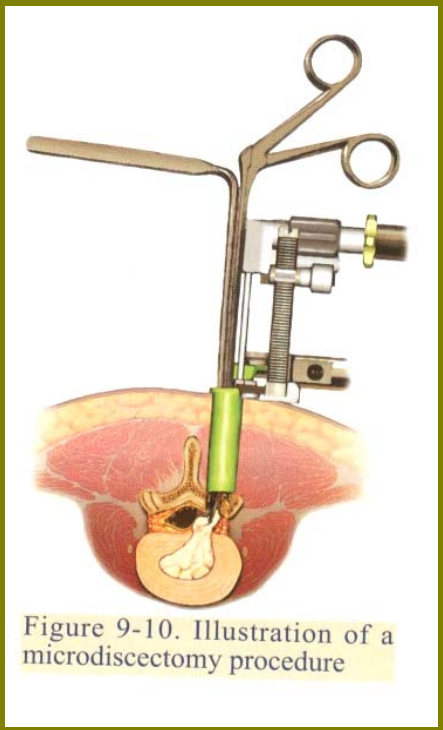
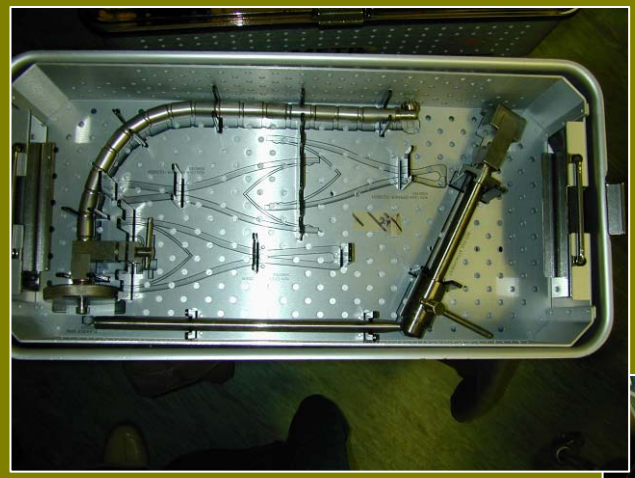
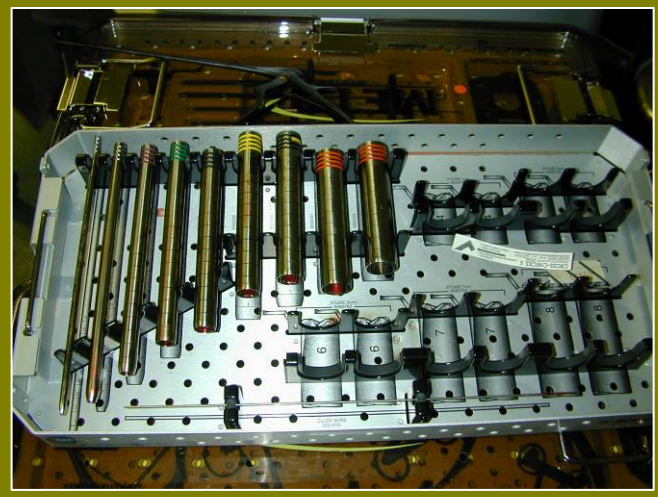
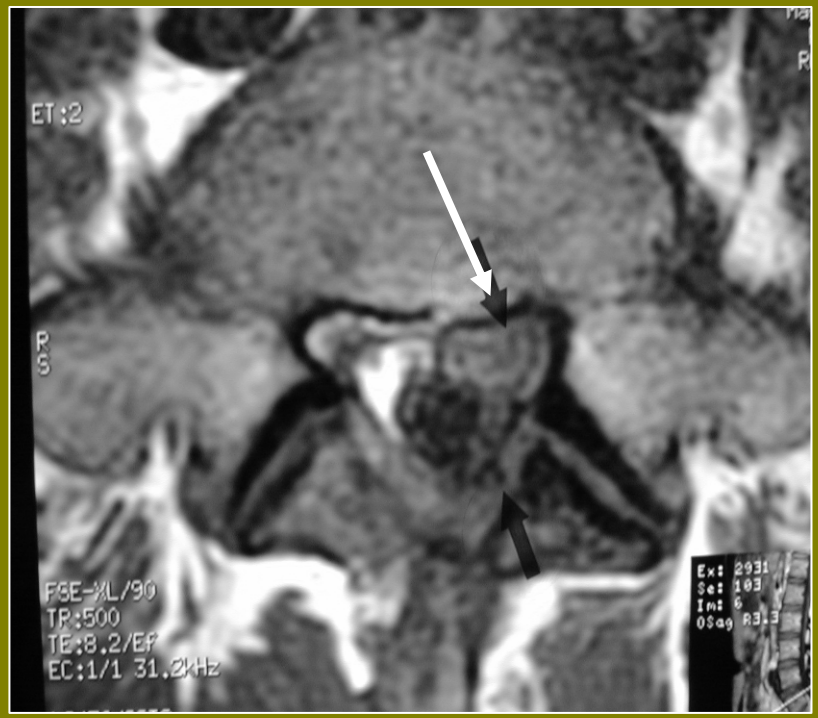


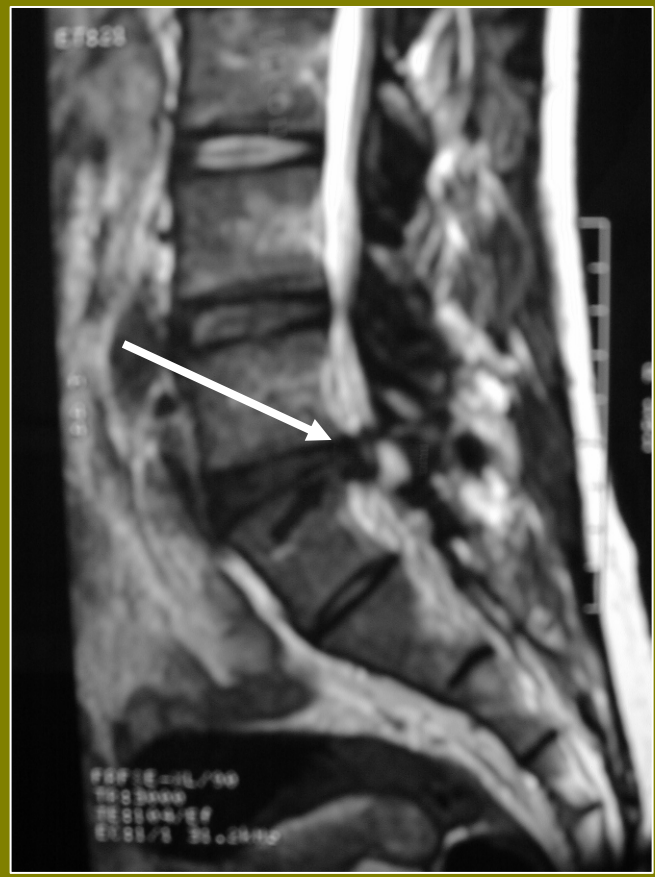
Figure 9-10. Illustration of a microdiscectomy procedure



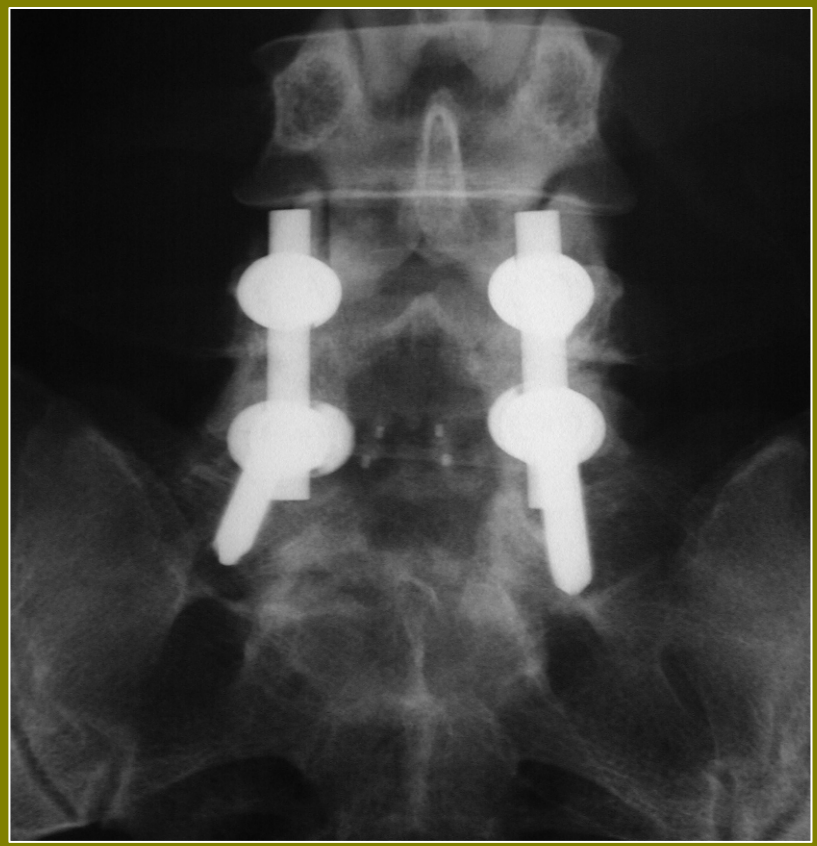


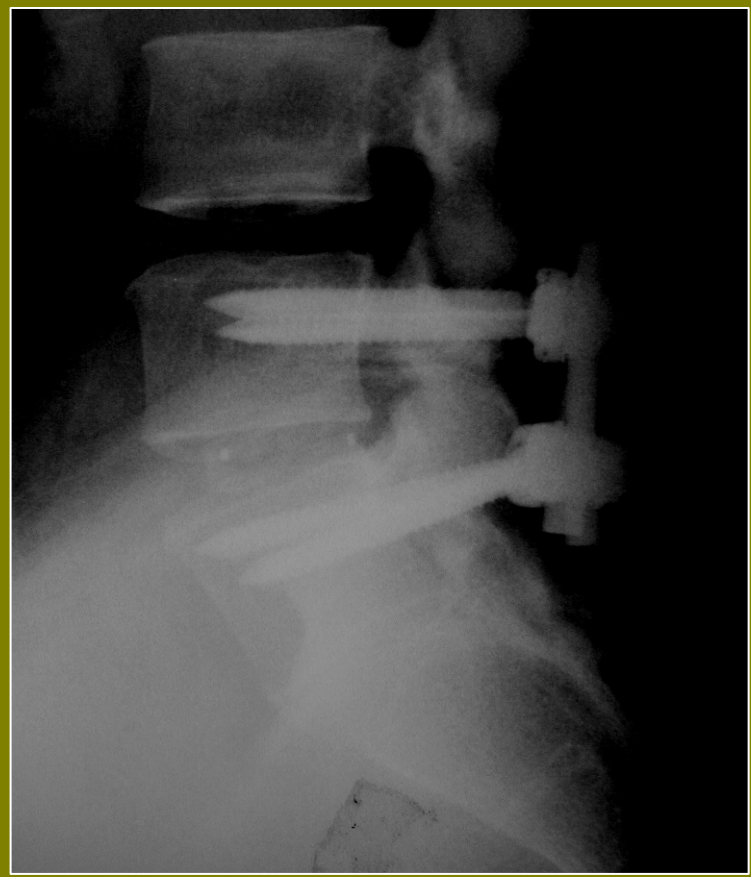
再發性腰椎椎間盤突出



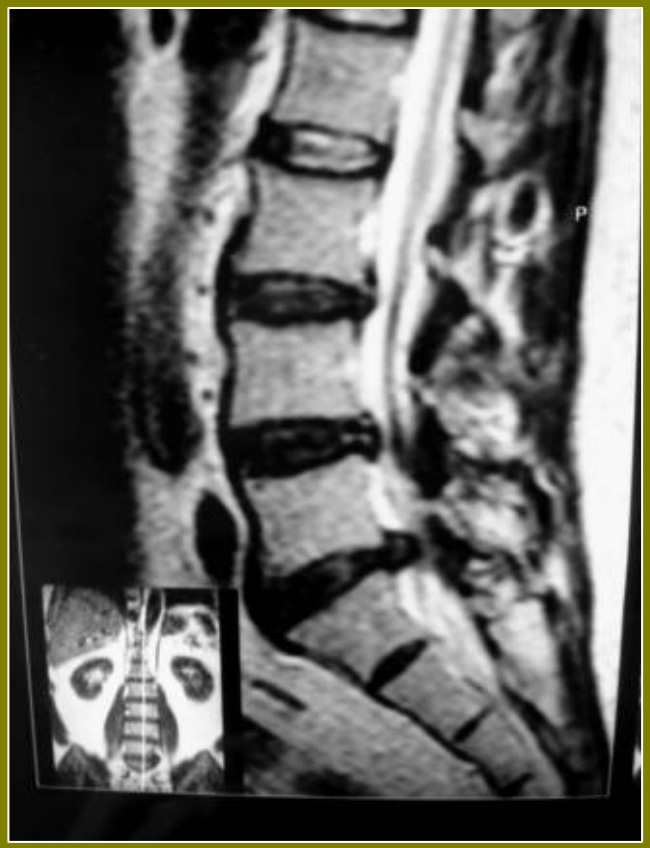


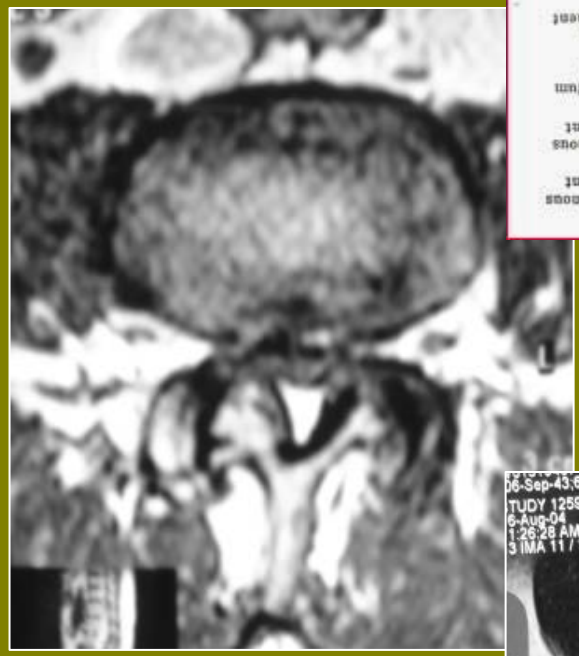
椎間盤突出切除+内固定術

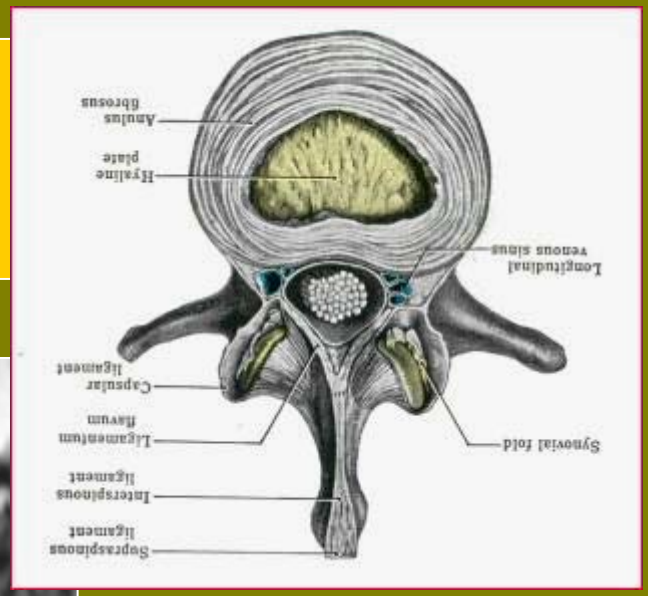


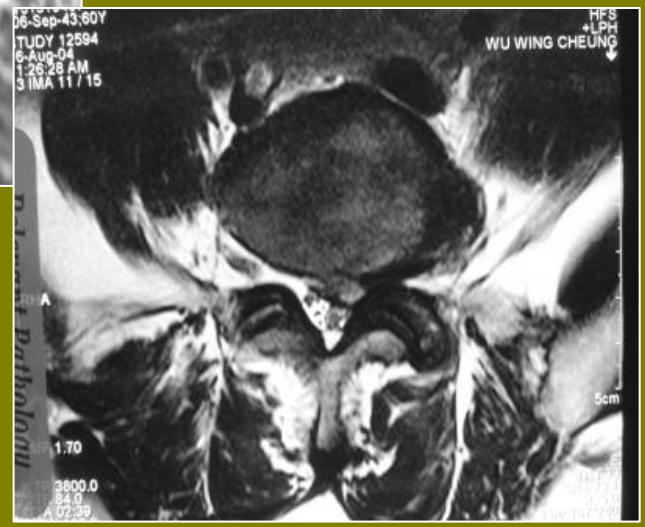


腰椎管狭窄症

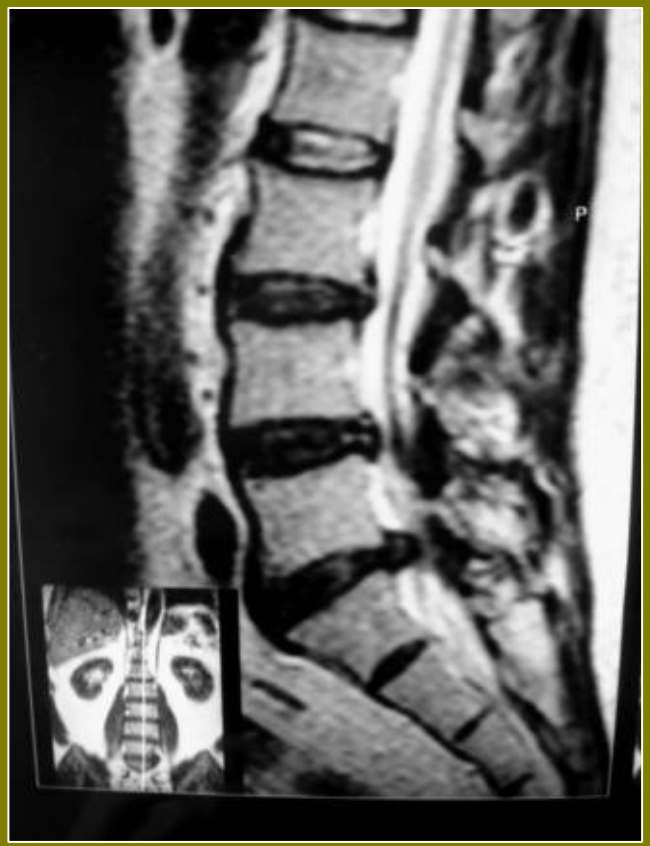


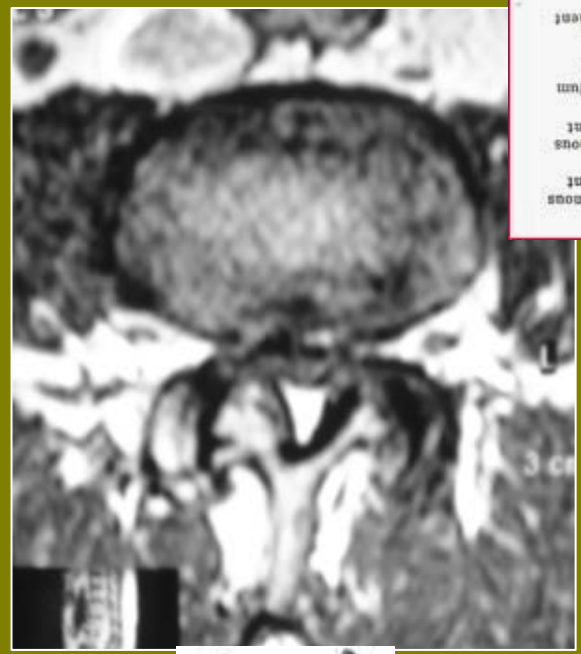



Annulus fibrosus
Hyaline plate
Longitudinal venous sinus
Capsular ligament
Ligamentum flavum
Synovial fold
Interspinous ligament
Supraspinous ligament

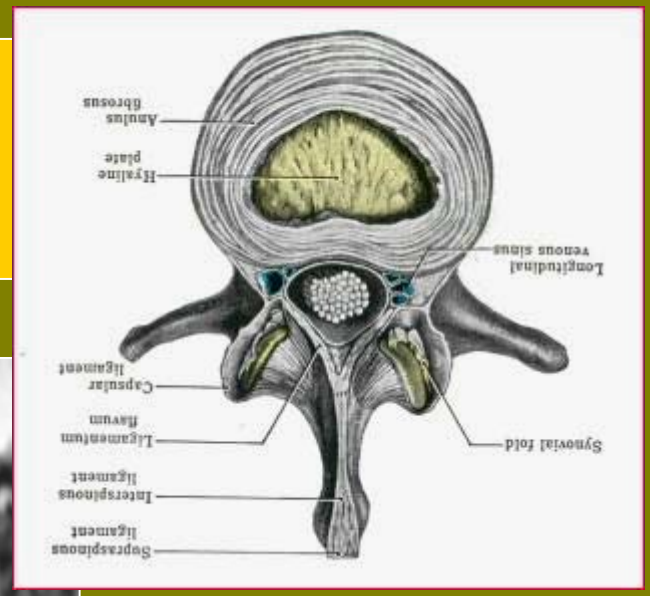

06-Sep-43,60Y
TUDY 12594
6-Aug-04
1:26:28 AM
3 IMA 11 / 15
HFS
+LPH
WU WING CHEUNG
5cm
1.70

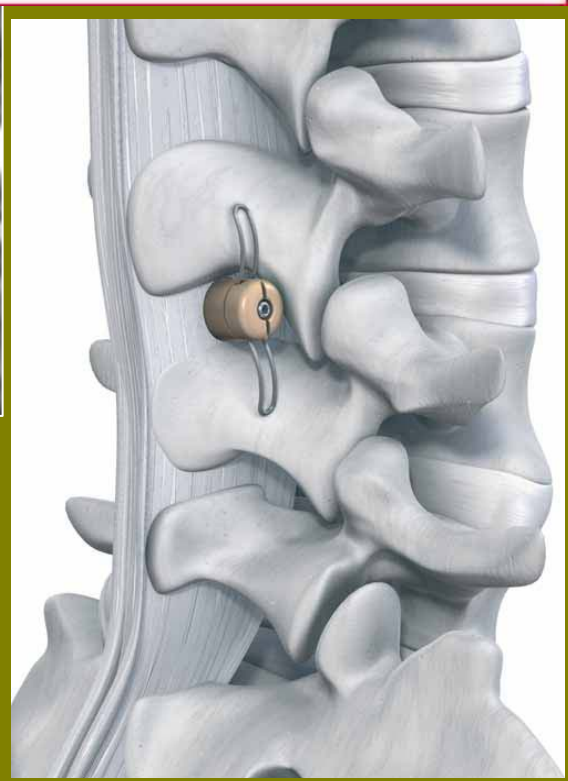
腰椎管狭窄症



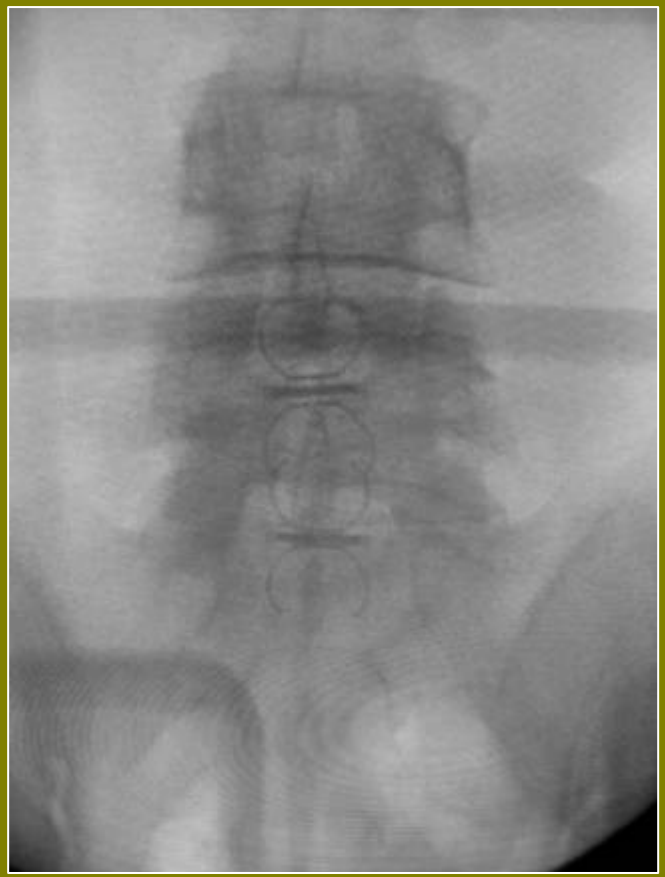


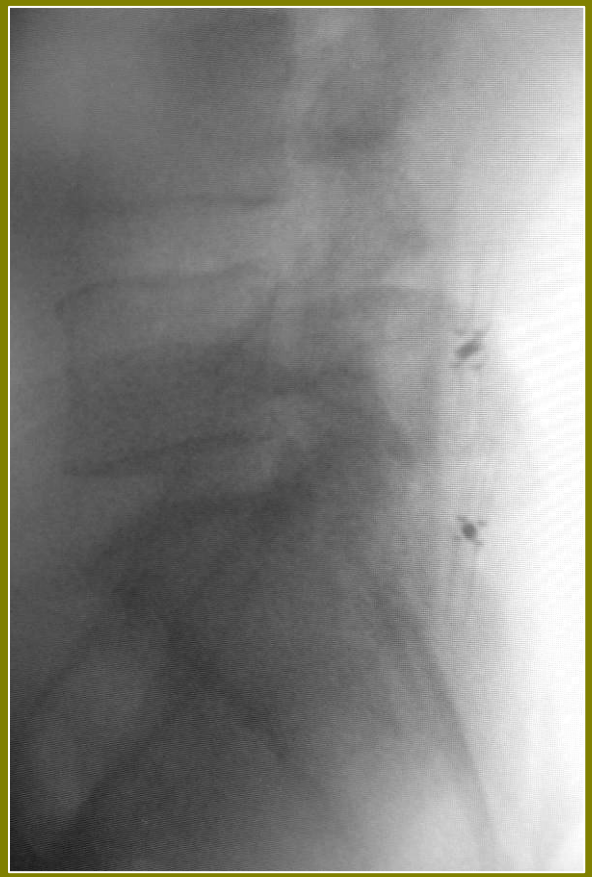

Ø10


Annulus fibrosus
Hyaline plate
Longitudinal venous sinus
Capsular ligament
Ligamentum flavum
Interspinous ligament
Supraspinous ligament
Synovial fold

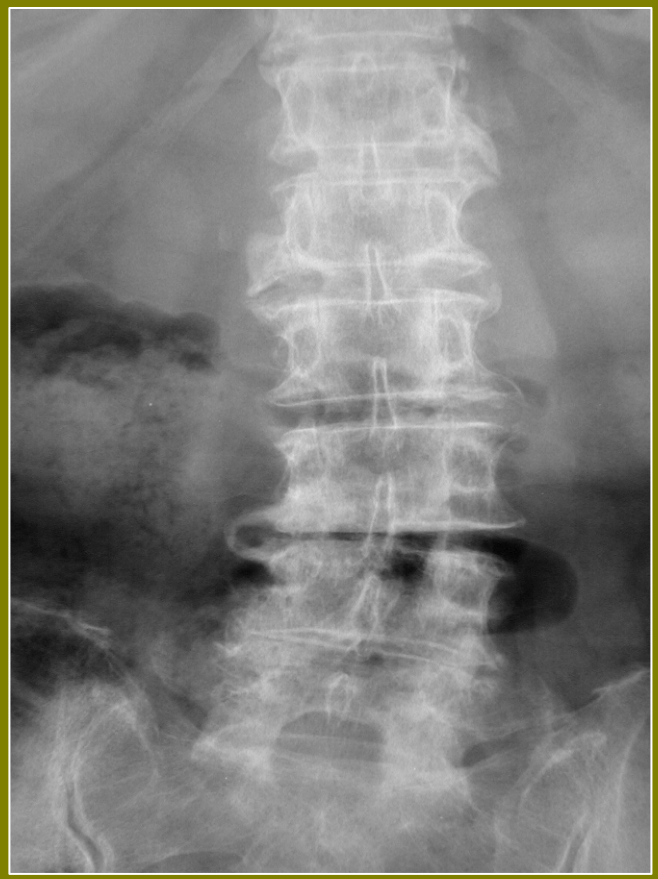


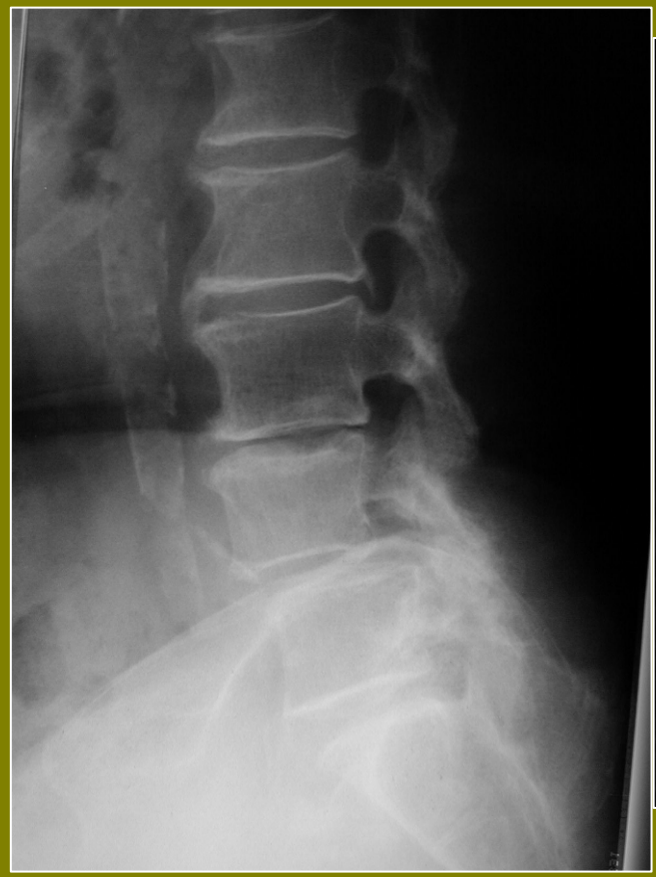
椎間盤突出切除
+ 腰椎神經減壓 + 棘突間支架

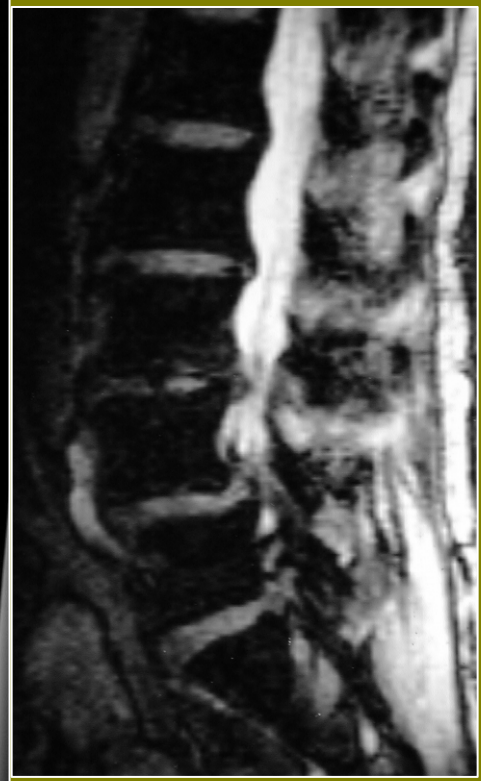




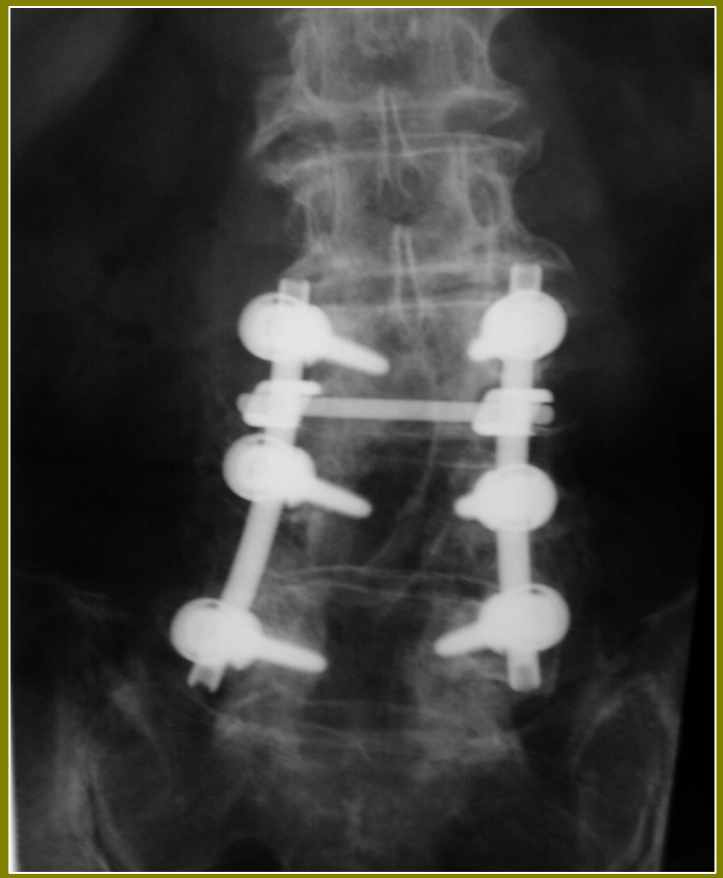
腰椎管狭窄及腰椎不穏定症

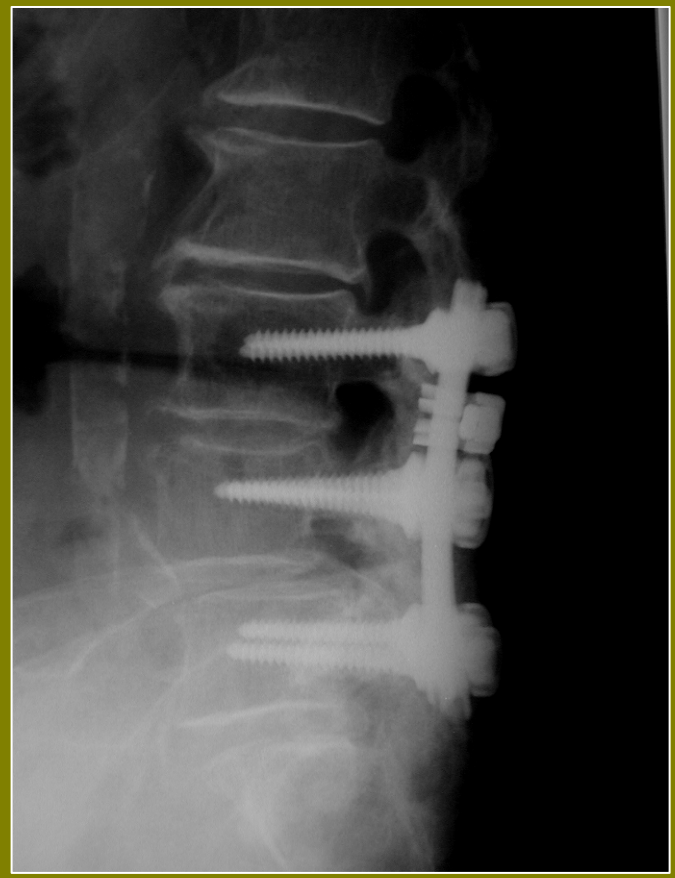




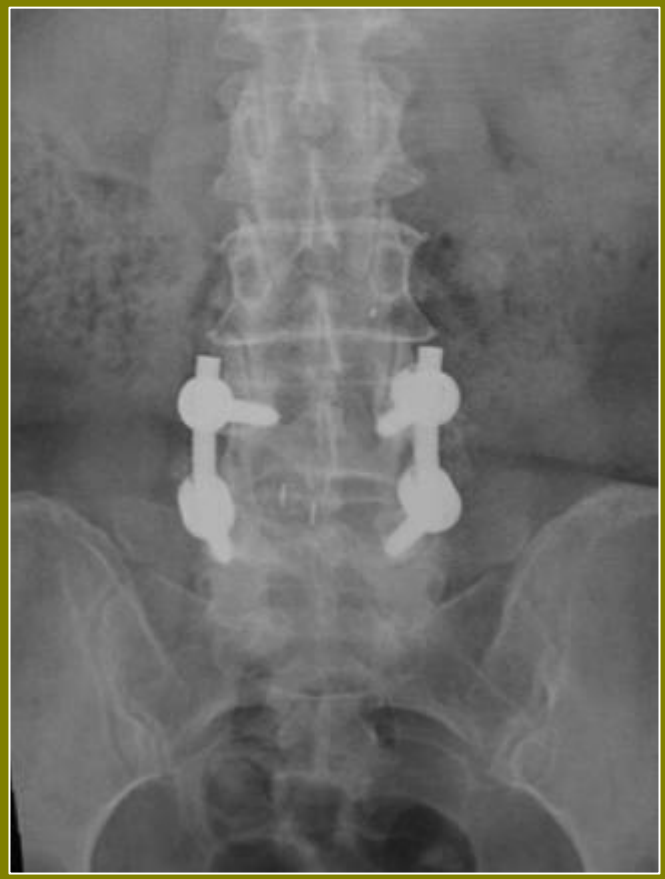


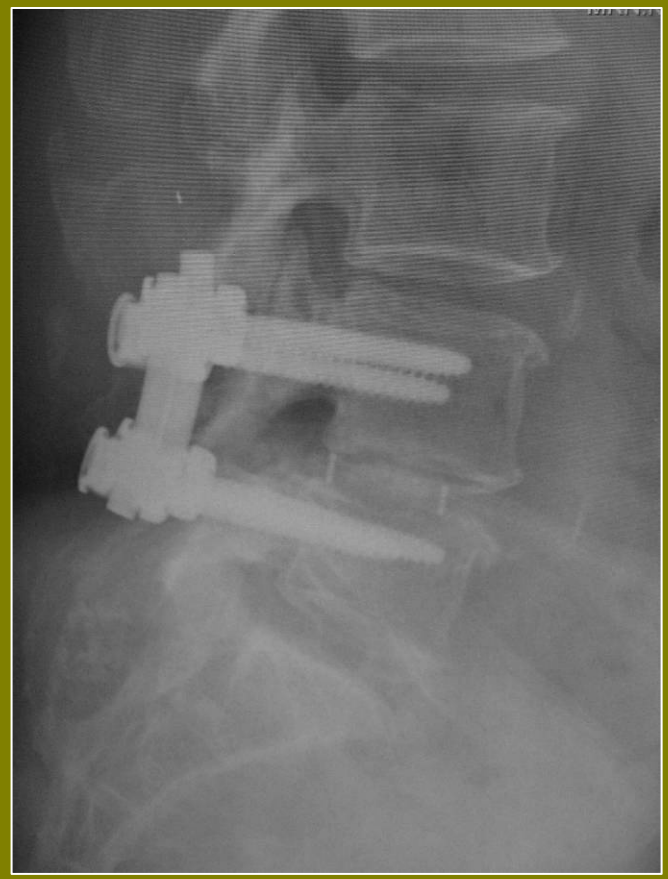
腰板切除＋内固定術



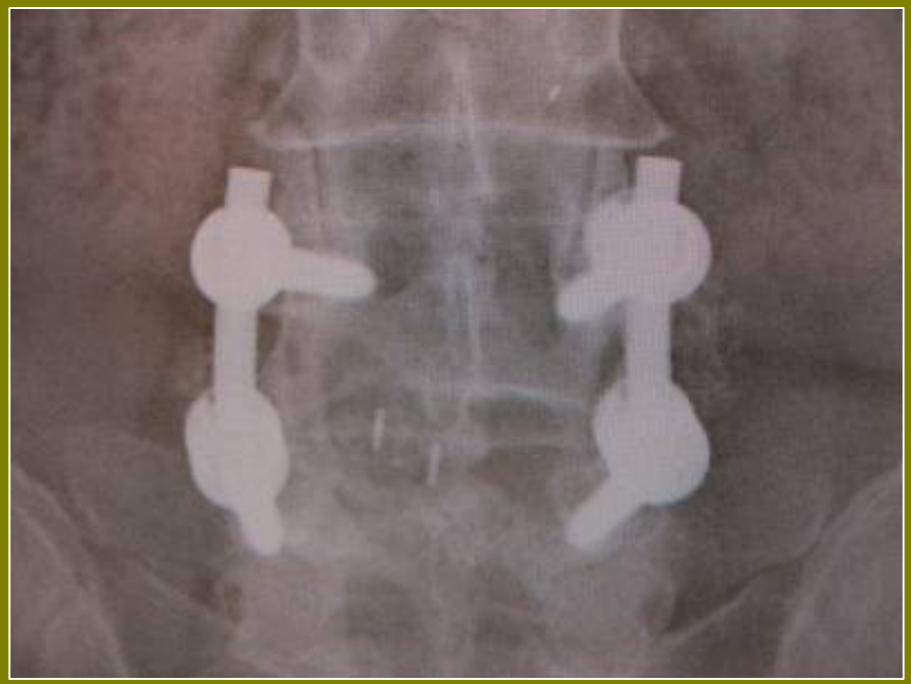


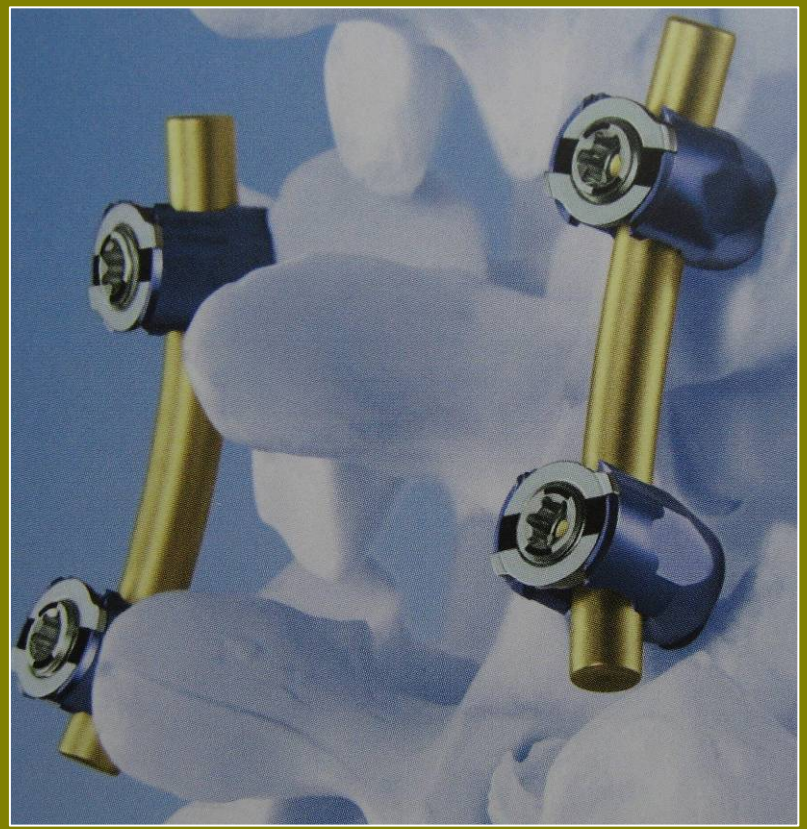
腰椎神經減壓 +內固定術



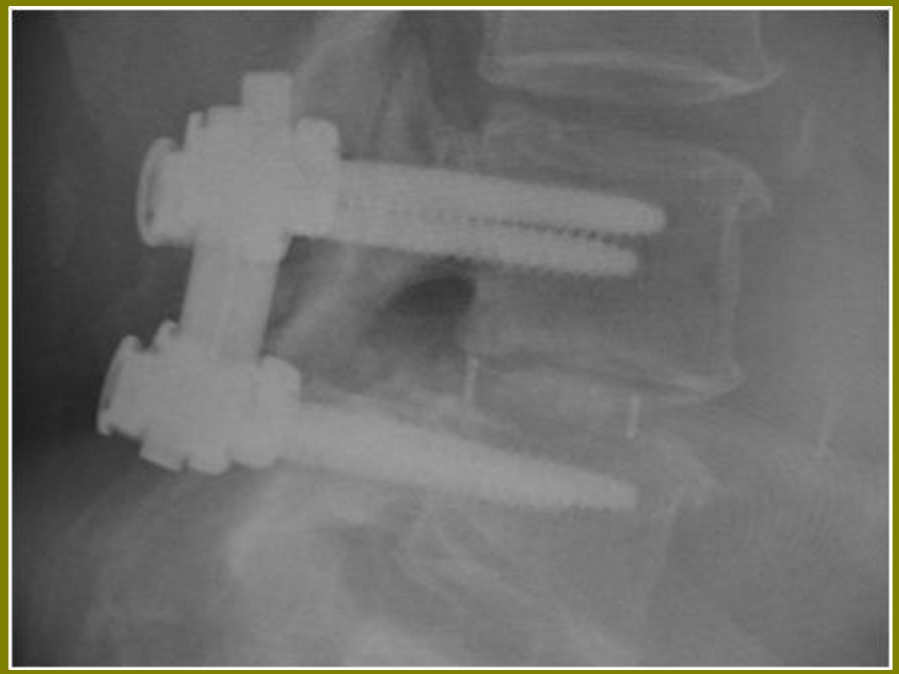


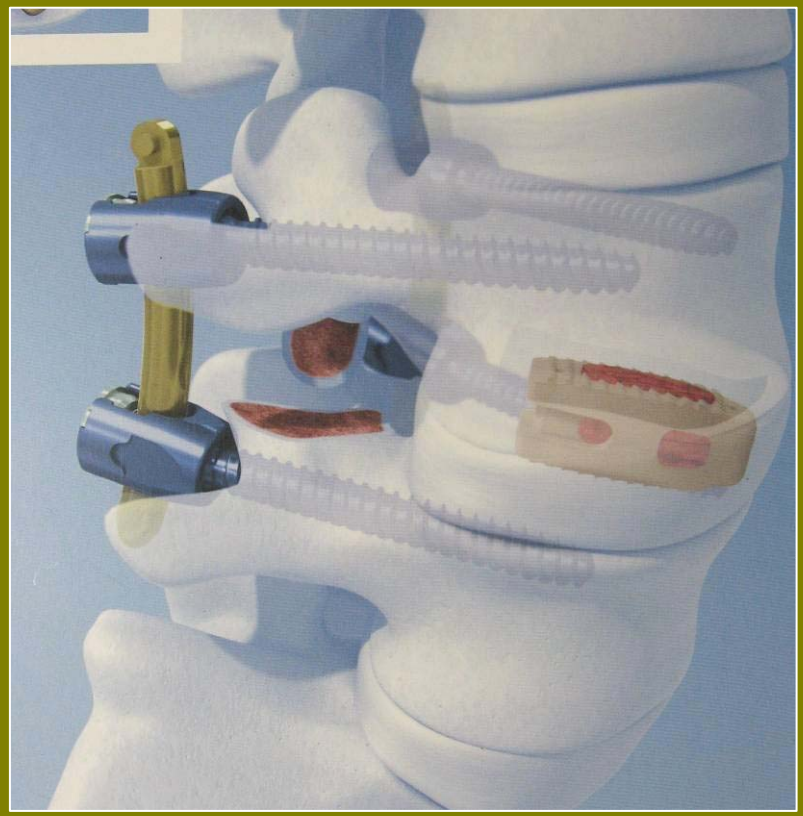
腰椎神經減壓 +內固定術



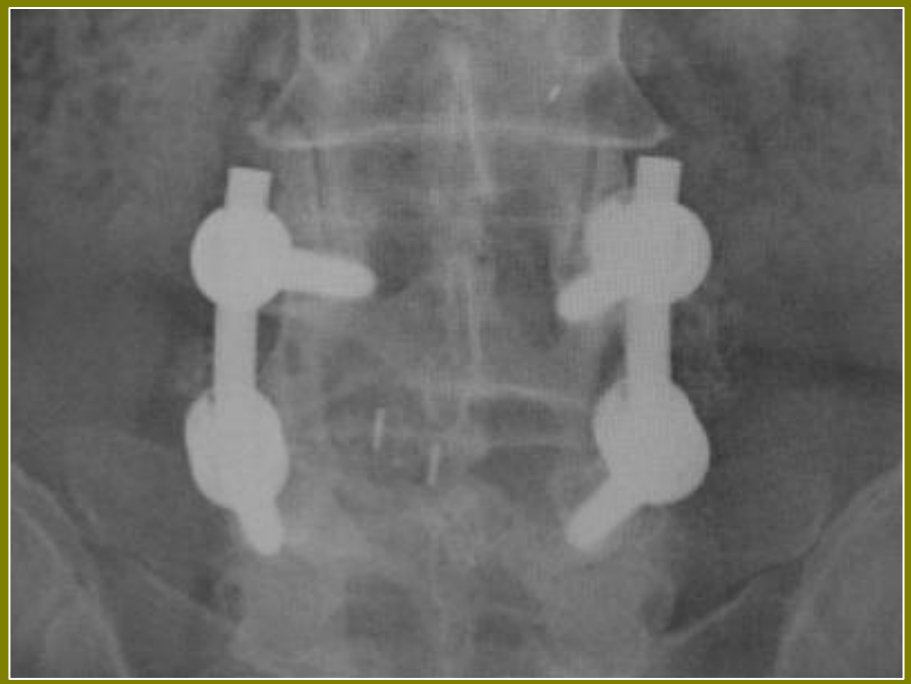


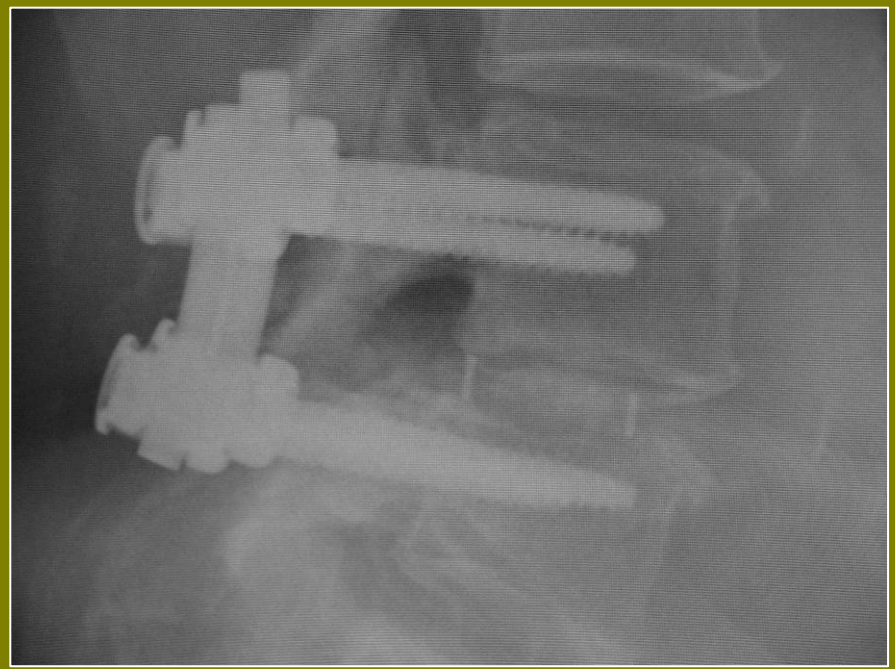
腰椎神經減壓 +內固定術





腰椎神經減壓 +內固定術






Thank you