

# Gener fra BA med fokus på ryggen og fænomenet slidgigt

Jørgen Degn





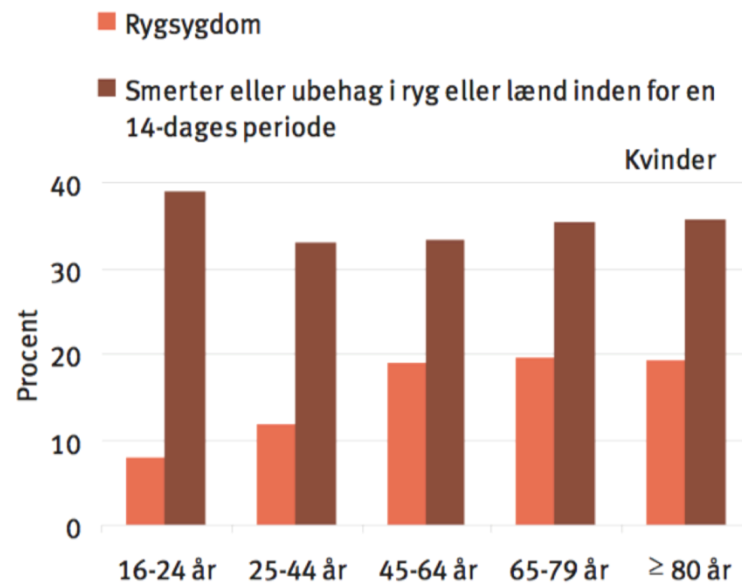
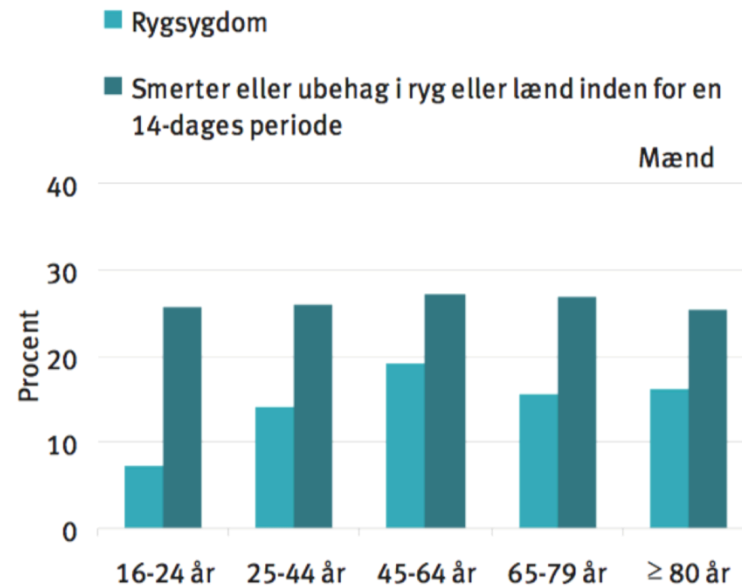
# Videncenter for Reumatologi & Rygsygdomme

Hvem har haft smerter  
eller ubehag i ryggen

A) Inden for de sidste  
2 uger?

B) Kroniske smerter?

**Figur 7.3. Forekomst (%) af lænderygsmarter blandt mænd og kvinder i forskellige aldersgrupper. 2005.**



Kilde: Sundheds- og syglighedsundersøgelsen 2005.



**Tabel 7.2. Risikofaktorer for forekomst og kronicitet af lænderygmerter.**

	Forekomst	Kronicitet
<i>Individuelle faktorer</i>	<ul style="list-style-type: none"> <li>- Alder</li> <li>- Fysisk form</li> <li>- Arvelighed</li> <li>- Nedsat udholdenhed af rygmuskulatur</li> <li>- Rygning</li> <li>- Dårligt helbred</li> <li>- Lavt uddannelsesniveau</li> <li>- Lav socialgruppe</li> </ul>	<ul style="list-style-type: none"> <li>- Overvægt</li> <li>- Kraftig smerte og funktionsnedsættelse</li> <li>- Ischias smerter</li> <li>- Langvarig sygemelding</li> </ul>
<i>Psykosociale faktorer</i>	<ul style="list-style-type: none"> <li>- Stress</li> <li>- Bekymring</li> <li>- Dårlig kognitiv funktion</li> <li>- Lav jobtilfredshed</li> </ul>	<ul style="list-style-type: none"> <li>- Depression</li> <li>- Somatisering</li> <li>- Aggraverende (overdreven) sygdomsadfærd</li> </ul>
<i>Arbejdsrelaterede faktorer</i>	<ul style="list-style-type: none"> <li>- Dårligt arbejdsmiljø</li> <li>- Mange belastende vrid</li> <li>- Mange gentagne bevægelser</li> <li>- Mange helkropsvibrationer</li> </ul>	<ul style="list-style-type: none"> <li>- Arbejdsskadesag, erstatnings sag eller pensions sag under behandling</li> <li>- Tungt arbejde / mange løft ved tilbagevenden til arbejde</li> </ul>

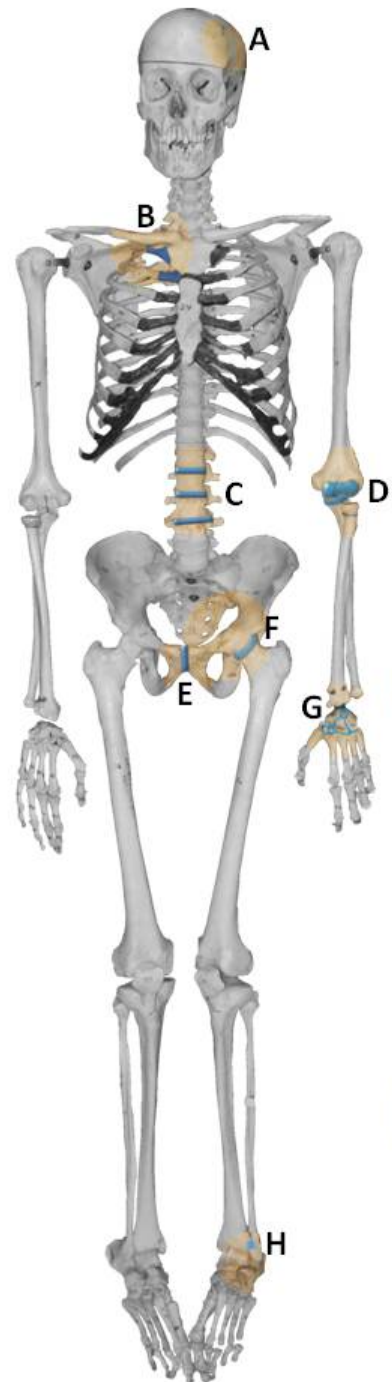
**Tabel 7.4. Risikofaktorer for skulder-nakke smerter.**

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<i>Individuelle faktorer</i>	<ul style="list-style-type: none"><li>- Køn og alder</li><li>- Overvægt</li><li>- Arvelighed</li><li>- Rygning</li><li>- Komorbiditet</li></ul>
<i>Psykosociale faktorer</i>	<ul style="list-style-type: none"><li>- Høje krav</li><li>- Lav jobkontrol</li><li>- Lav indflydelse</li><li>- Manglende social støtte</li><li>- Lav jobtilfredshed</li><li>- Ængstelse</li><li>- Bekymring</li><li>- Depressivitet</li><li>- Stress</li></ul>
<i>Arbejdsrelaterede faktorer</i>	<ul style="list-style-type: none"><li>- Arbejdsstilling (løftede arme)</li><li>- Gentagne bevægelser</li><li>- Tungt arbejde</li><li>- Kombination af tungt arbejde og gentagne bevægelser</li><li>- Kombination af gentagne bevægelser og kulde</li><li>- Vibrationer</li></ul>

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Kilde: Walker-Bone et al, Semin Arthritis Rheum, 2003. National Research Council IoM, 2001. Natvig and Picavet, Best Pract Res Clin Rheumatol, 2002.

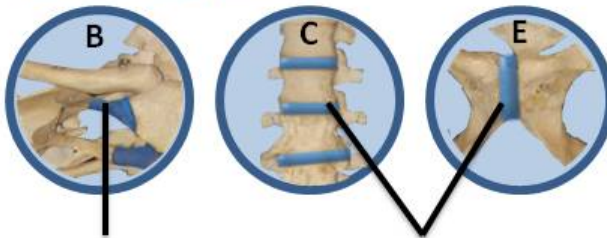


### Fibrous joints



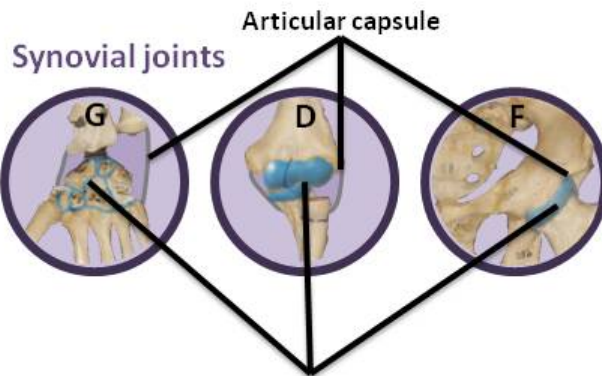
Fibrous connective tissue

### Cartilaginous joints



Hyaline cartilage

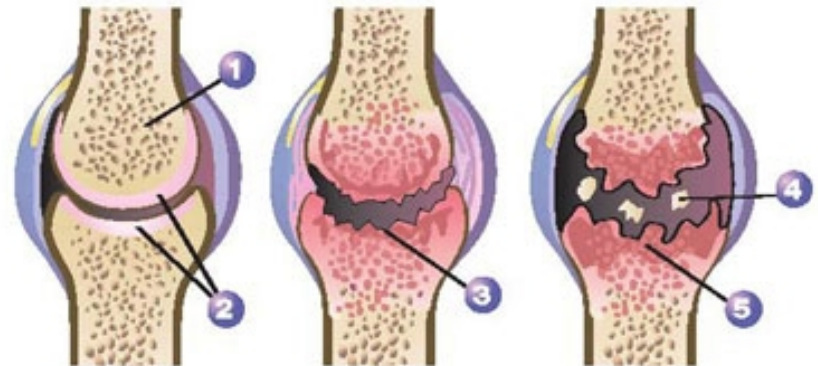
Fibrocartilage



Articular (hyaline) cartilage

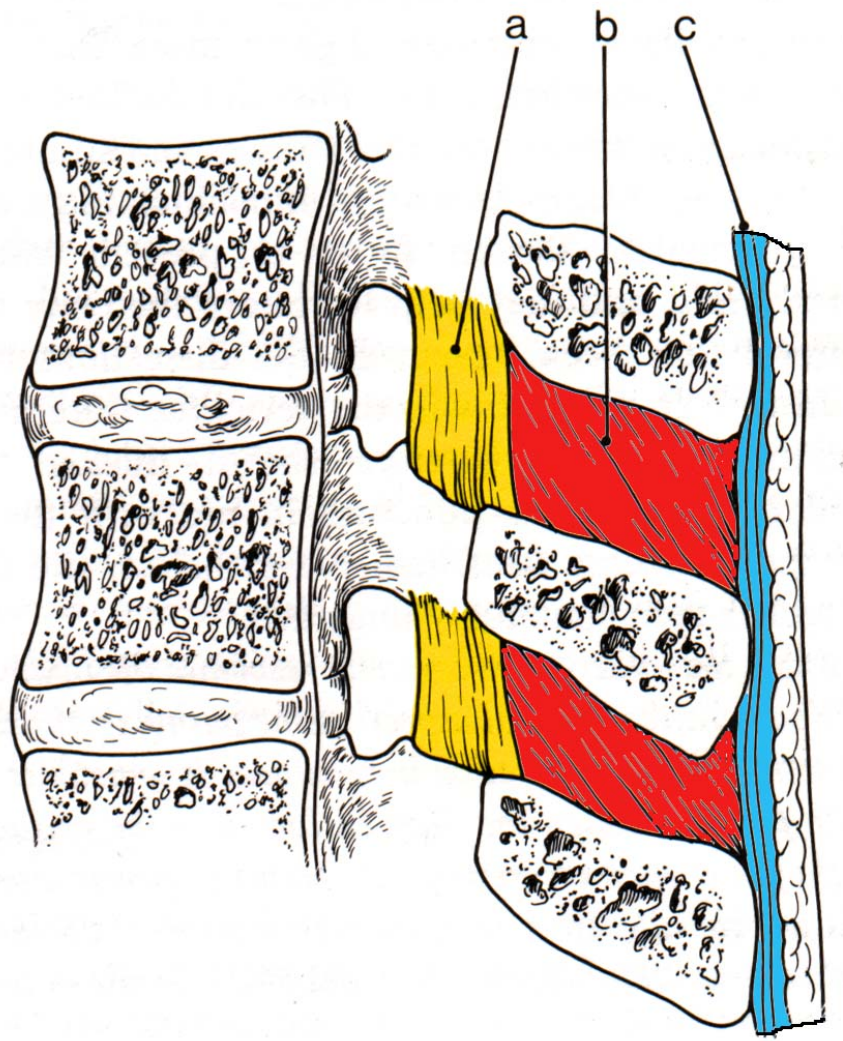
- Led
- Sener
- Muskler
- Knogler
- Nerver

### Evolution of Osteoarthritis



1. Bone
2. Cartilage
3. Thinning of cartilage

4. Cartilage remnants
5. Destruction of cartilage





# Den kliniske diagnose & smertegeneratoren

- Smerte i huden
- Muskelsmerter (myoser)
- Diskogene smerter (DDD)
- HIZ-læsion
- Neuropatiske smerter
- Nerverodssmerter (radikulopati)
- Facetledssmerter (ægte led)
- Hvirvelbrud (fraktur)
- Meddelt smerte fra andet organ
- Instabilitet (spondylolistese)
- Infektion (spondylodiskitis)
- Skvatryg (Kissing spine, Basstrup)
- Somatisering
- SI-led
- Hofteartrose
- Tumor, cyste
- Scheuermann
- Axial artrit
- Simvastatin
- Vasc. claudicatio



# Klinisk diagnose?

## Hvor sidder nervelæsionen?

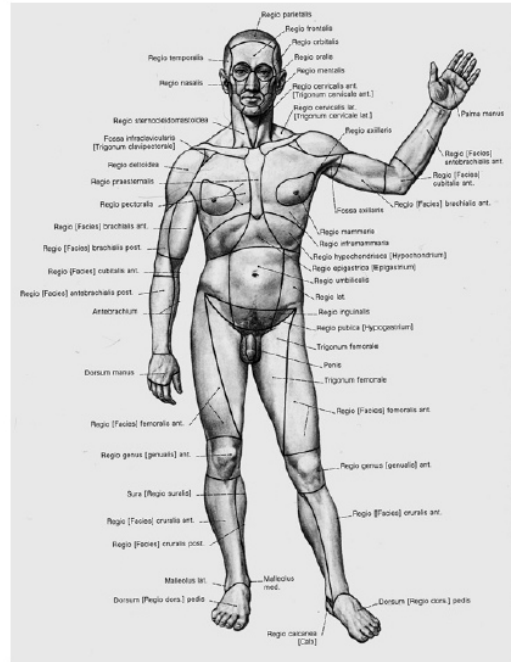
- Storhjernen, lillehjernen, kranienerver
- Cervikale rygmarg eller nerverod
- Thorakale rygmarg eller nerverod
- Lumbale nerverødder
- Sacrale nerverødder
- Perifere nerver
- Højre / venstre side



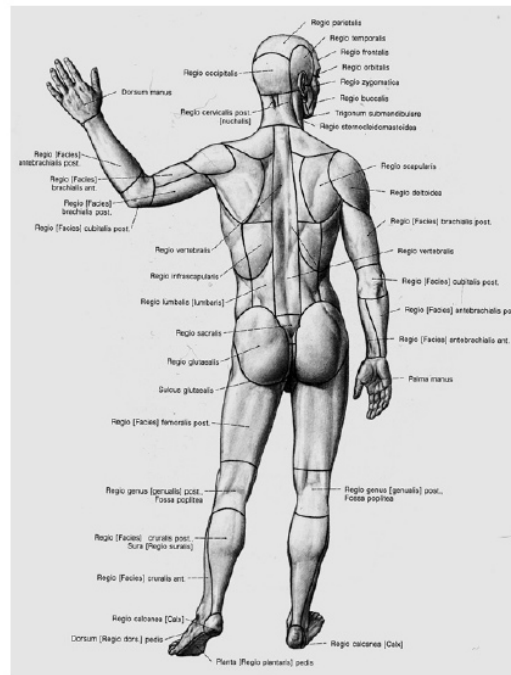
# Symptomer

- A. Hovedpine
- B. Nakkesmerter
- C. Skuldersmerter
- D. Armsmerter \*\*\*
- E. Smerter i brystryg
- F. Lændesmerter \*\*
- G. Bensmerter \*\*\* / referred pain
- H. Kraftnedsættelse \*\*
- I. Styringsbesvær \*\*
- J. Føleforstyrrelser \*
- K. Nedsat gangdistance \*\*\*
- L. Bevægeindskrænkning (ADL)
- M. Tab af blærefyldningsførom.
- N. Blæretømmningsbesvær \*
- O. Afføringsinkontinens \*
- P. Impotens
- Q. Smertekarakter
- R. Smertestyrke og -tærskel (VAS)
- S. Debut, varighed, variabilitet
- T. Diffus eller dermatomal
- U. Provokation/lindring

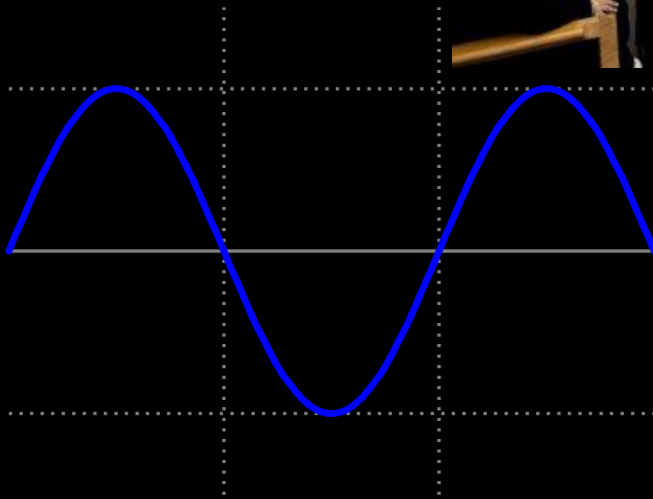
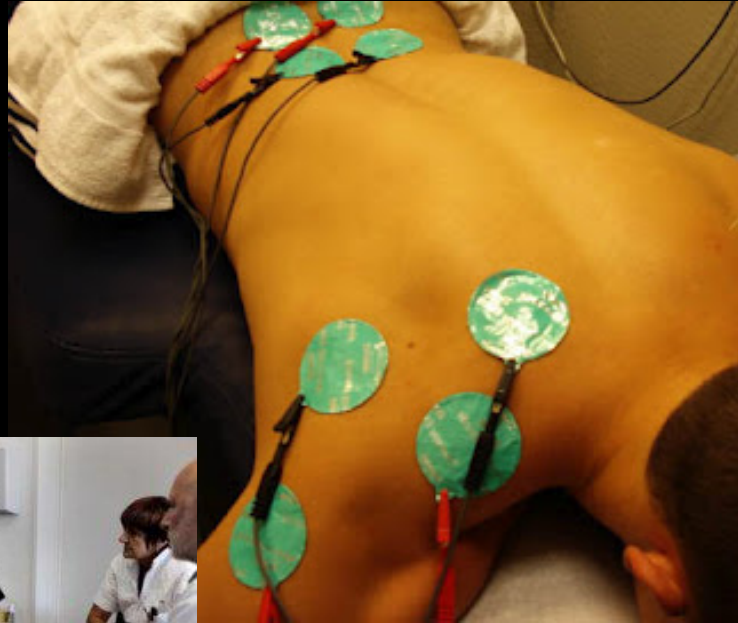
# Smertediagrammet



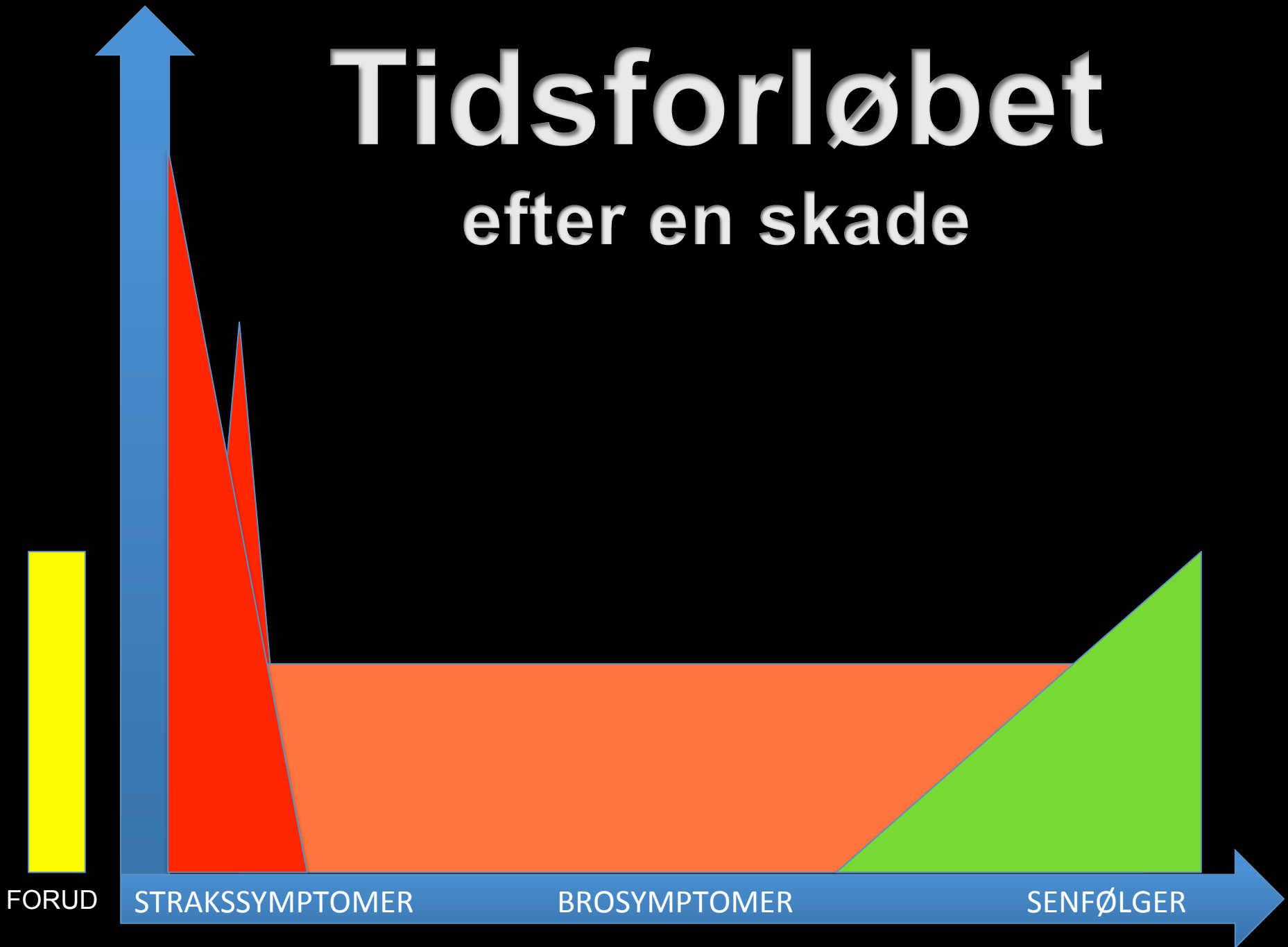
**SMERTE (rød, x)**  
**MYREKRYB (grøn, Δ)**  
**FØLESELSØSHED (blå, o)**  
**NEDSAT BEVÆGELIGHED (□)**



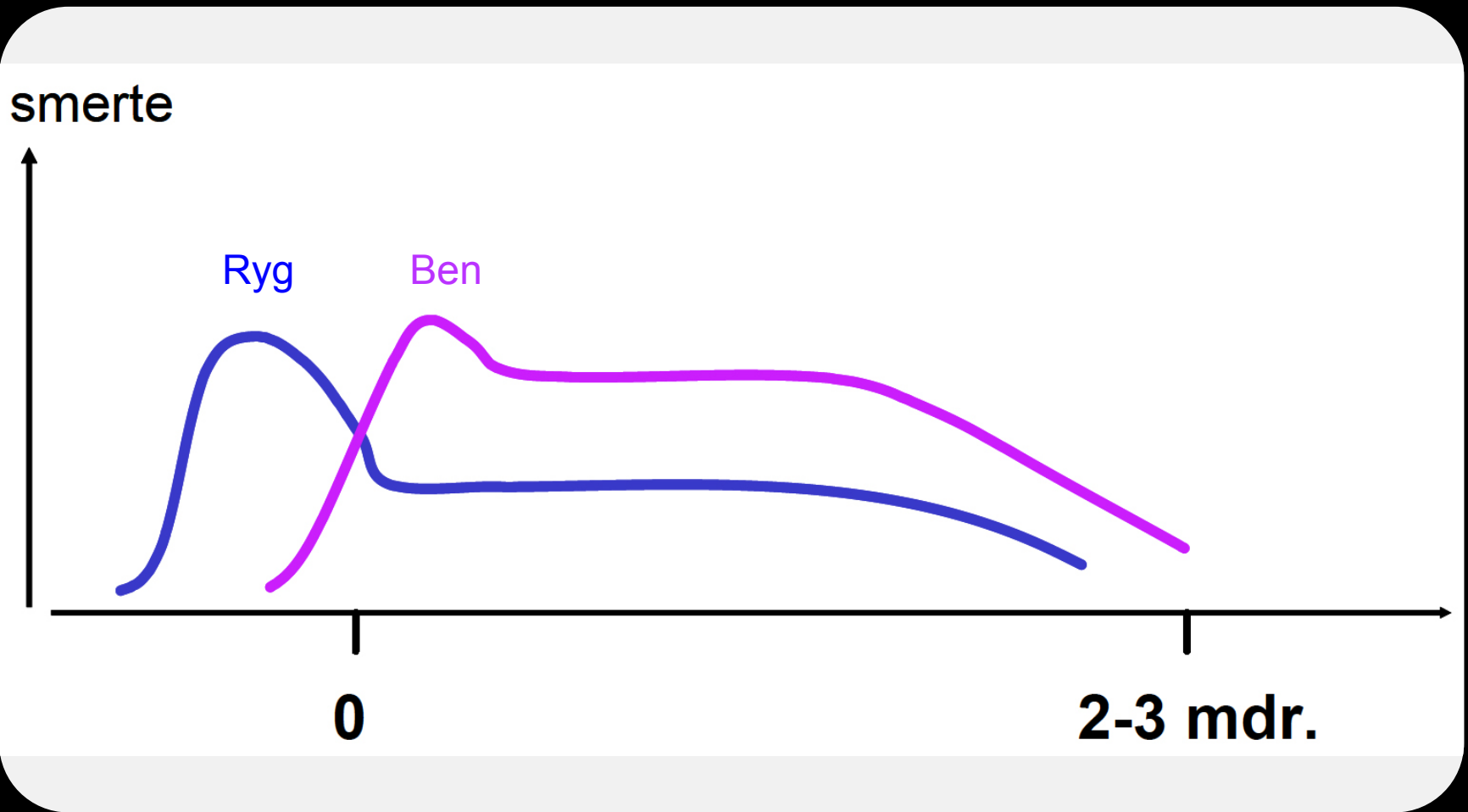
# Smertens karakter



# Tidsforløbet efter en skade



# Naturforløbet ved discusprolaps



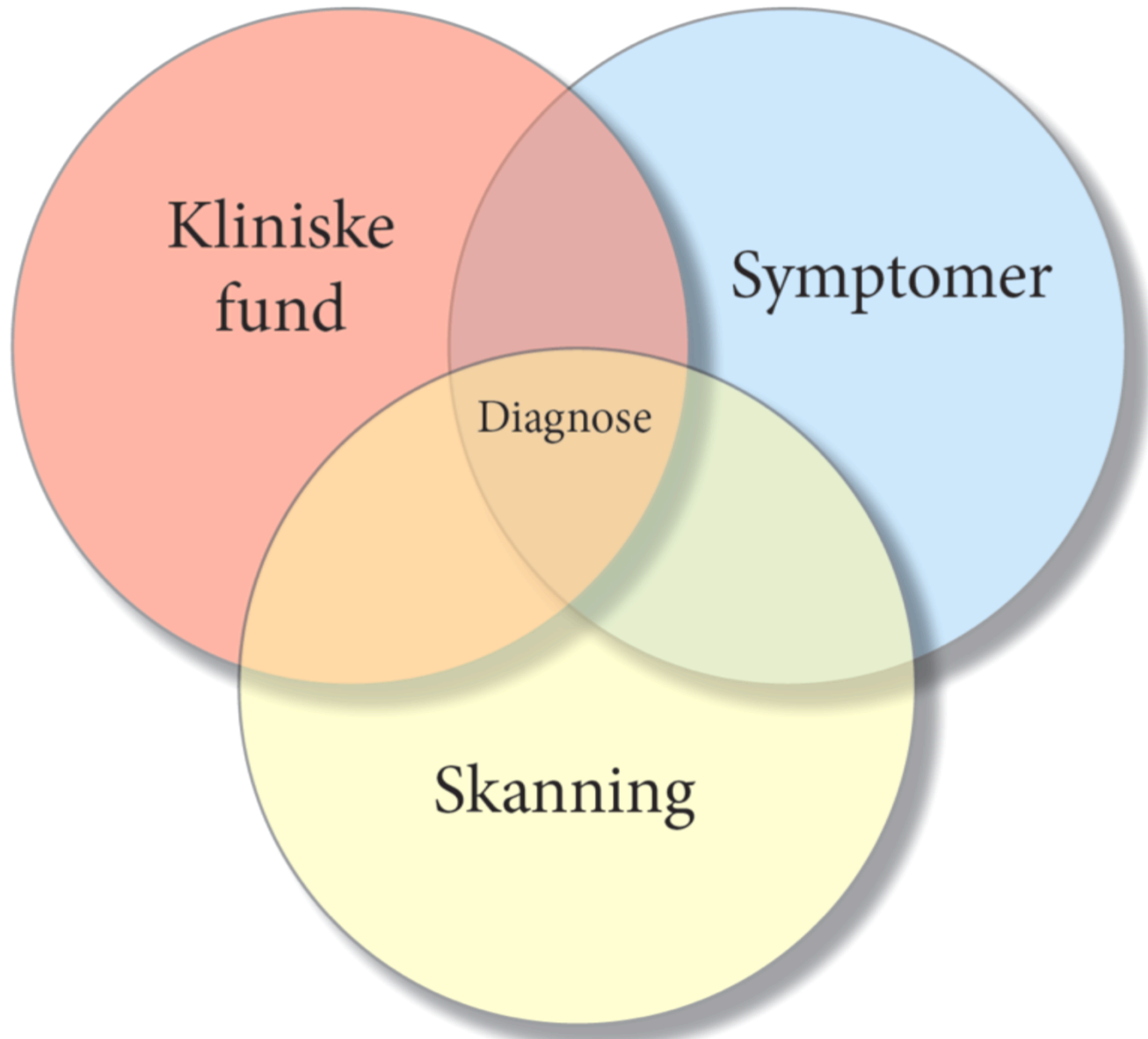
0

2-3 mdr.

# Lumbal spinalstenose

- Rygsmerter
- **Radikulære smerter** (oftest uden neuoudfald)
- **Neurogen claudicatio** ved gang: reduceret gangdistance – ingen problemer med at cykle
- Foroverbøjning lindrer – ekstension forværrer
- Progredierende og intermitterende symptomer – forværring ved aktivitet





Kliniske  
fund

Symptomer

Diagnose

Skanning

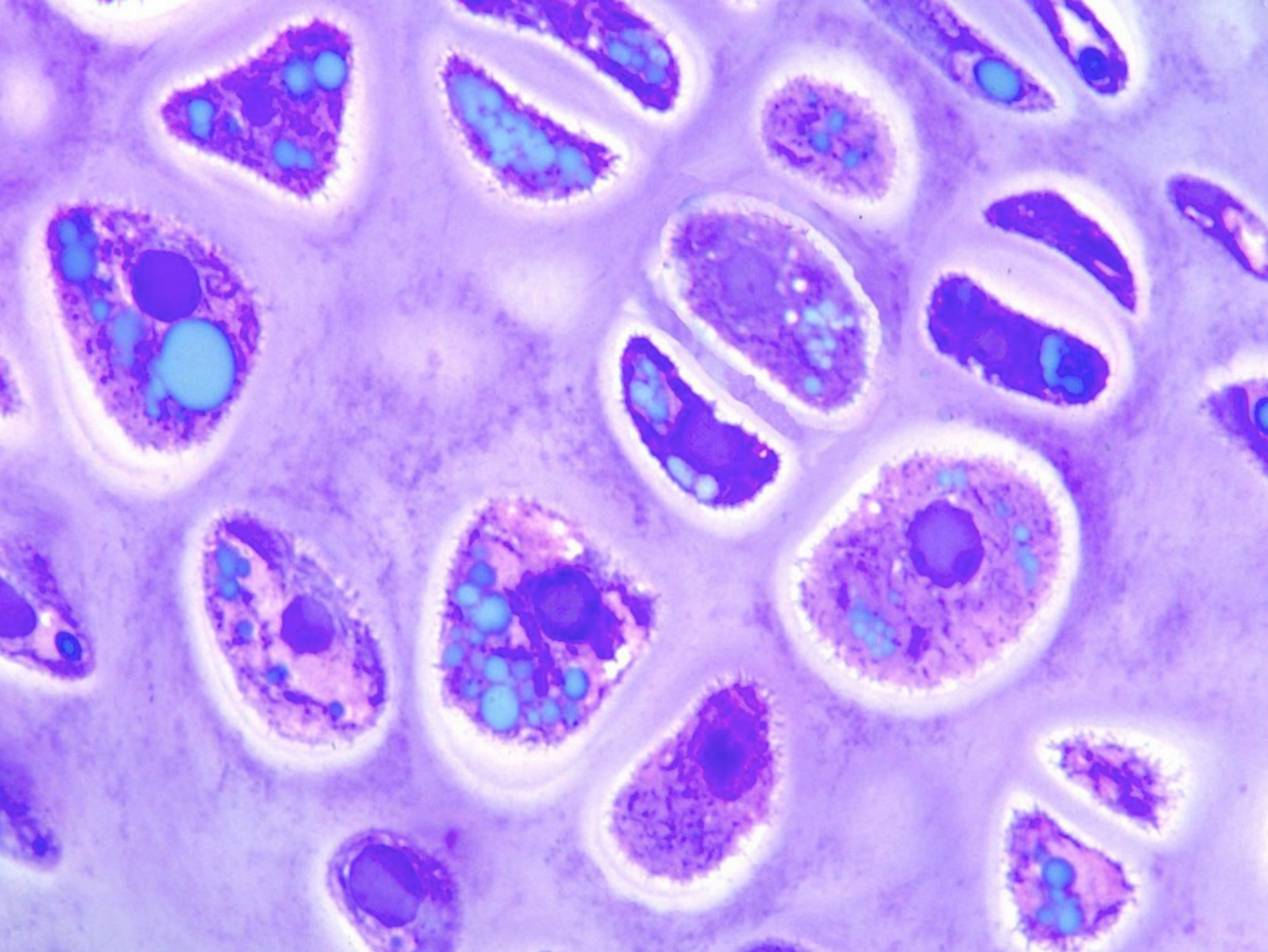


# Patofysiologi

Hvordan opstår "slidgigt"?

”Slidgigt”





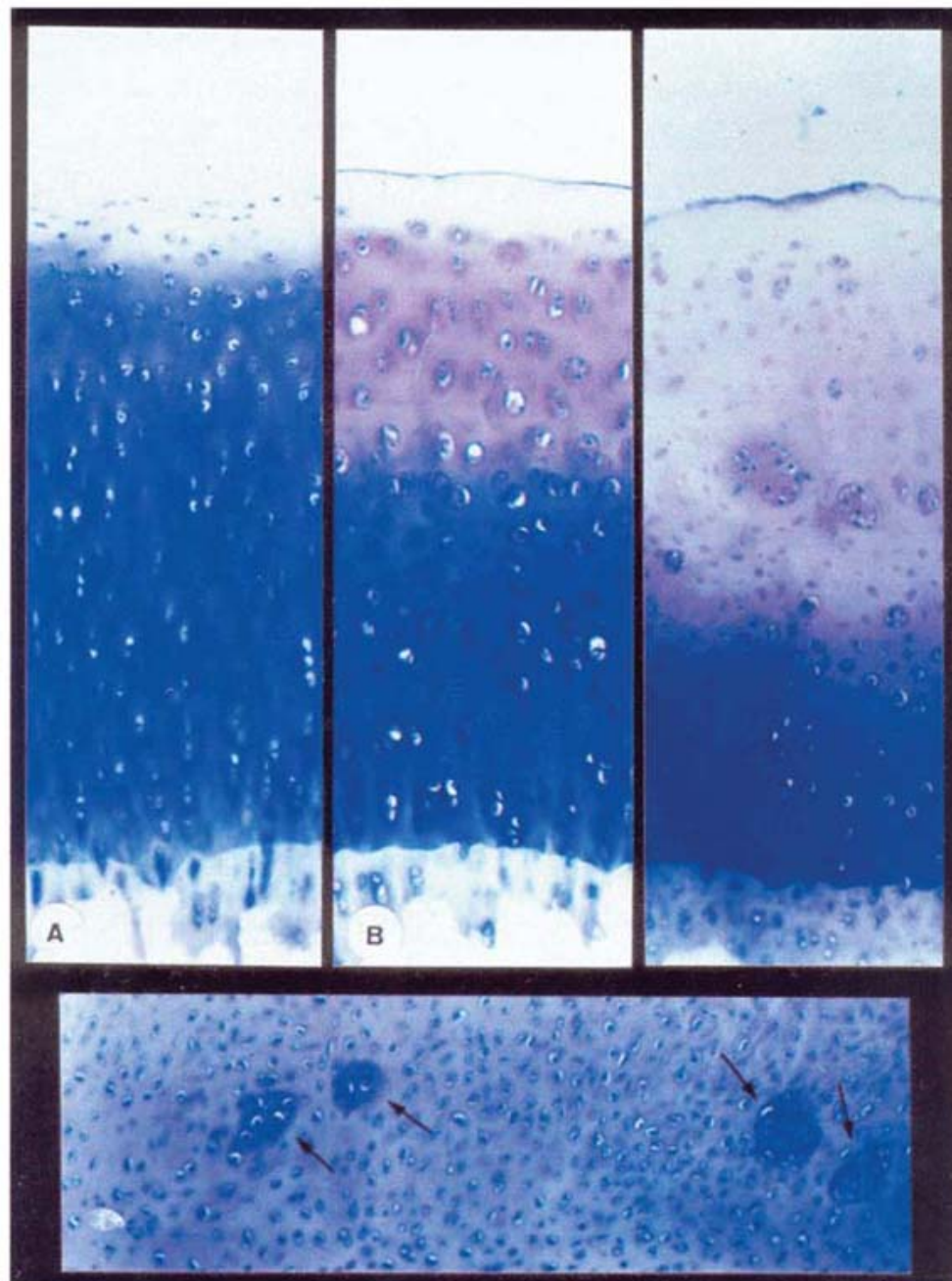


Figure 1. Progressive decrease of the staining intensity of the extracellular matrix of the articular cartilage of the femur of dogs. Toluidine blue. A) Slight. Chondroitin sulfate group, 118.7x. B) Moderate. Sodium hyaluronate group. 118.7x. C) Severe. Sodium hyaluronate group, 143.5x. D) Areas showing synthesis of extracellular matrix (arrows). Sodium hyaluronate group, 119.9x.

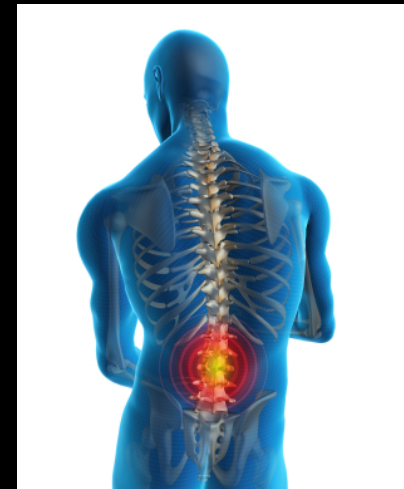
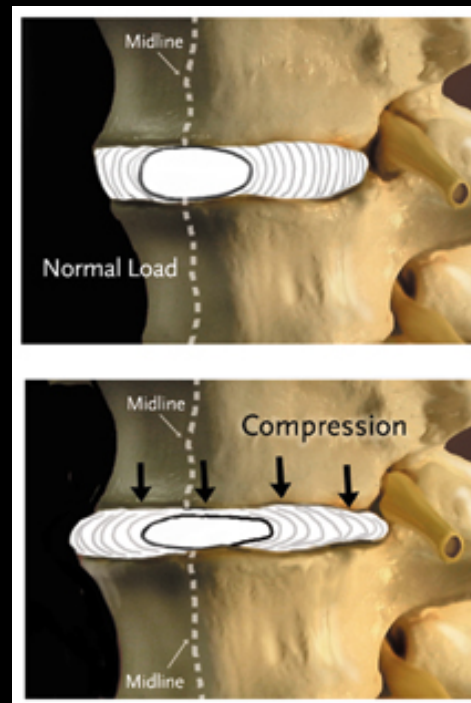
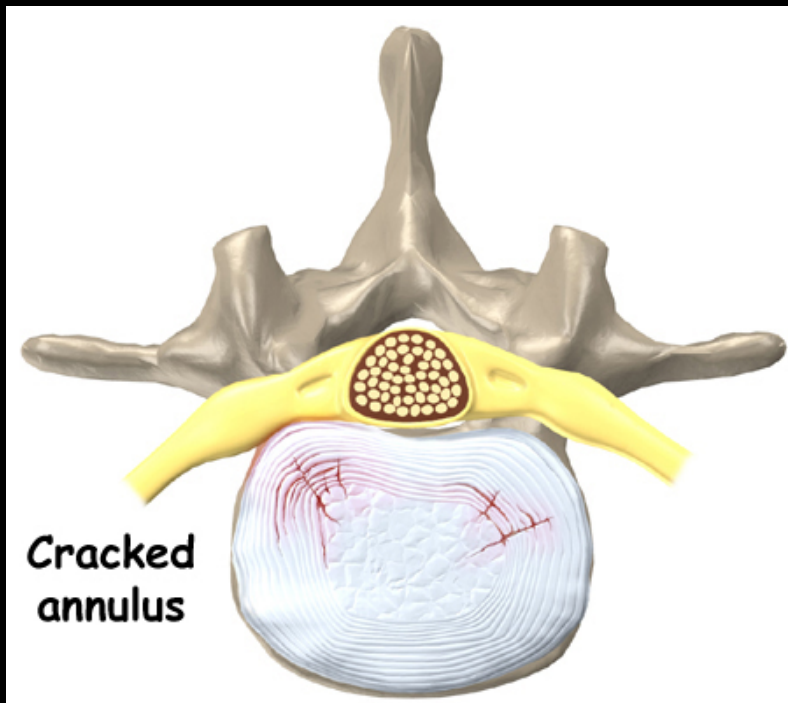
# Sårbarhed – overbelastning – forstærkning

## BIO-PSYKO-SOCIAL-EKSISTENTIEL MODEL

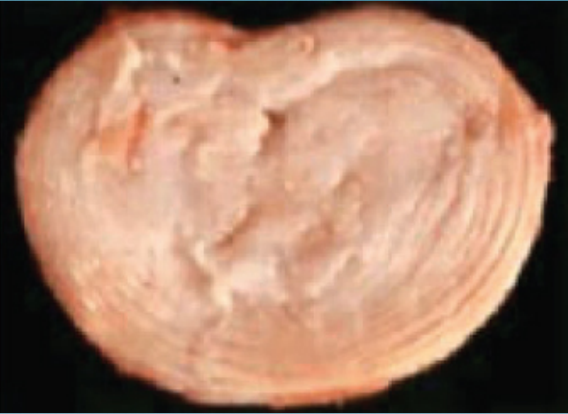
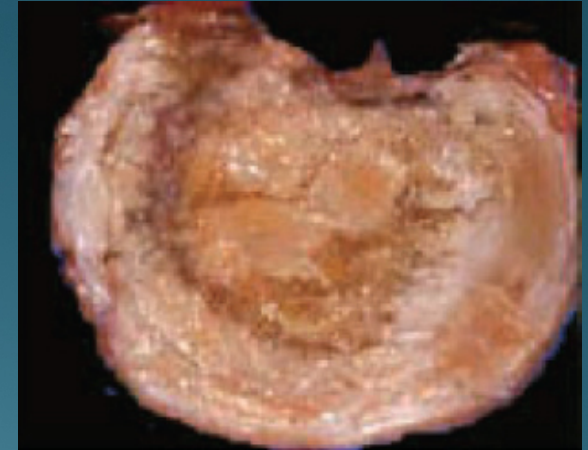
- Genetik: medfødt sårbarhed eller misdannelse
- Aldersbetinget degeneration
- Arbejde: dårlig arbejdsstilling, tunge løft, EGA
- Rygning
- Overvægt
- Tidligere brud
- Infektion
- Idræt

# Diskusdegeneration

Degeneration af annulus fibrosus med udvikling af sprækker, inflammation, nedsat vandindhold, afladning og smerte



# Årsager til diskusdegeneration



## Multifaktoriel kumulativ model

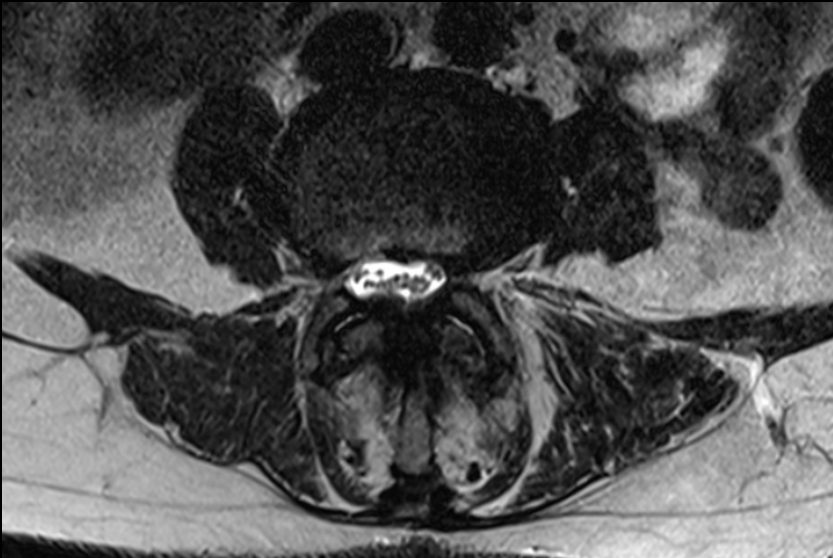
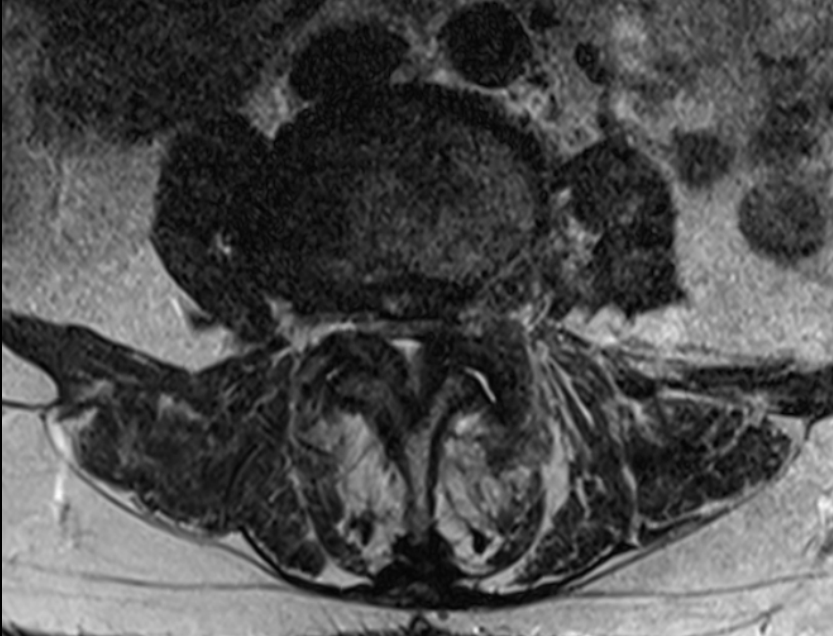
- Familiær disposition & genetik: ca. 60%
- Rygning: ca. 15%
- Overvægt
- Mandligt køn
- Aldring
- Mekanisk stress: <10%

POLYMORFIER  
Kollagen type 9, 11  
Vit-D receptor  
MMP-3  
TNF- $\alpha$





MR

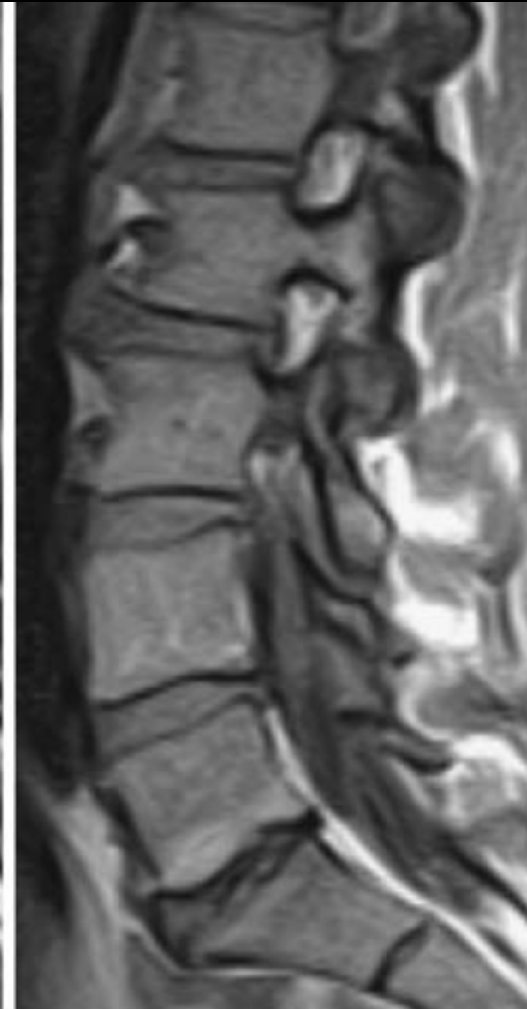
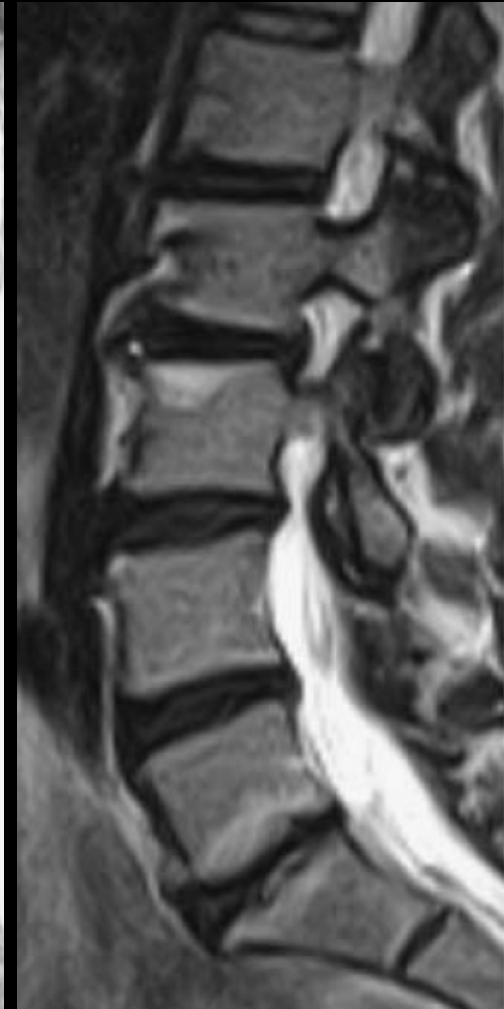


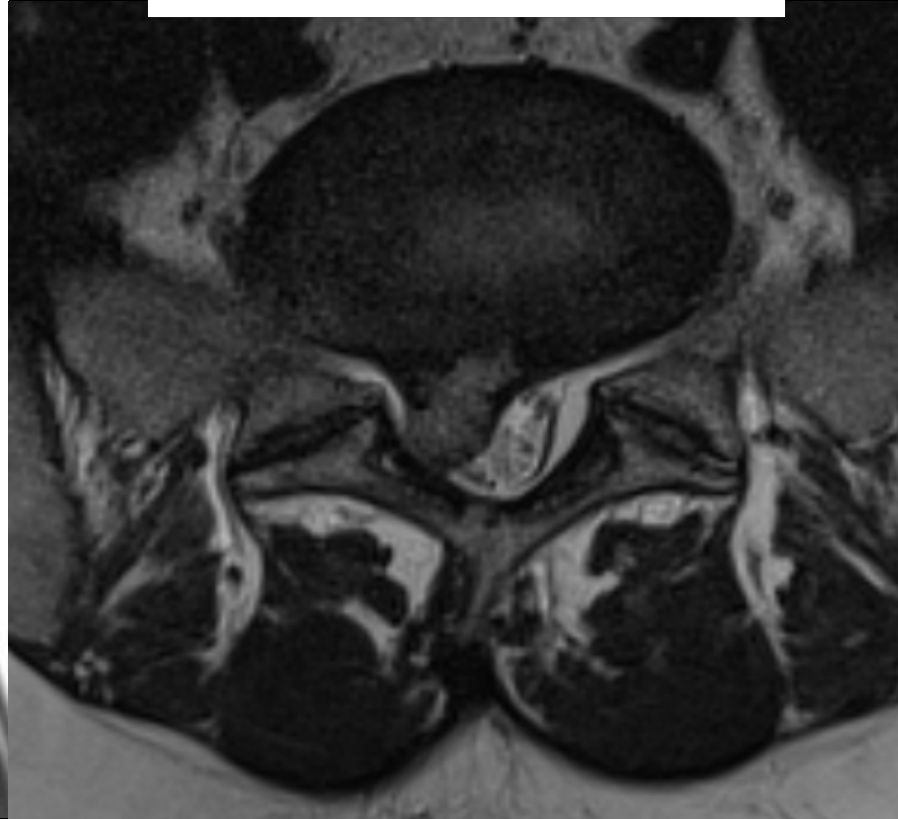
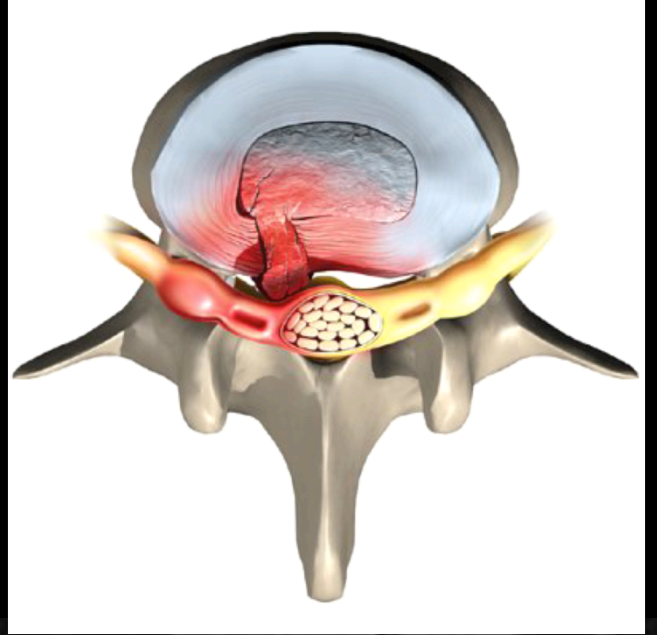
# Modic forandringer

Type 1 (L4/L5)

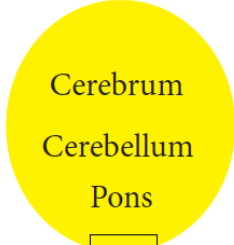
Associeret med prolaps og lændesmerter

Type 2 (L5/S1)





**Rygundersøgelse**  
**inkl. neurologisk undersøgelse**



**Myelopati: 1. neuron**

Babinski, Ankelklonus, Hyperrefleksi, Hoffman

**Radiculopati: 2. neuron**

**Differentialdiagnoser**

- Angina pectoris
- CTS (Tinel, Phalen)
- Tennisalbue
- Neurofibrom

Inspektion  
 Bevægelighed (F/E/Rot)  
 Spurlings test/L'hermitte

**Tværsnitssyndrom**

- Centralt
- Brown-Séquard
- Spinalis anterior

C2  
C3  
C4  
C5  
C6  
C7  
T1  
T2  
T3  
T4  
T5  
T6  
T7  
T8  
T9  
T10  
T11  
T12  
L1  
L2  
L3  
L4  
L5  
S1  
S2  
S3  
S4

- C5 - Supraspinatus & Deltoideus
- C6 - Biceps & håndledsextension [1.+2. finger]
- C7 - Triceps, håndledsflexion, fingerextension [2.-4.]
- T1 - C8: fingerflex [4.-5.] - T1: fingerabduktion

- T5 - Myoser
- T6 - Spondylolistese
- T7 - Facetledsartrose
- T8 - Discusdegeneration & HIZ-læsion
- T9 - Ligamentum flavum hypertrofi
- T10 - Kissing spine

Smt: Annulus fibrosus & Lig. longitudinale post.

**Differentialdiagnoser**

- FABER (SI-led)
- Hofteindadrotation
- Kapillærrespons/puls
- Vibrationssans (polyn.)
- Peroneusparese

Inspektion  
 FGA (Schobers test)  
 Extensionstest  
 SBT/Lasègue/Bragard  
 Sensibilitet  
 Trendelenburg's tegn

- L2 - Hofteflexion
- L3 - Knæextension
- L4 - Knæextension & ankeldorsalflexion (Patellar)
- L5 - Dorsalflex. inkl. storetå, glut. med., inv. (mediale hase)
- S1 - Ankelplantarflexion (Achilles)

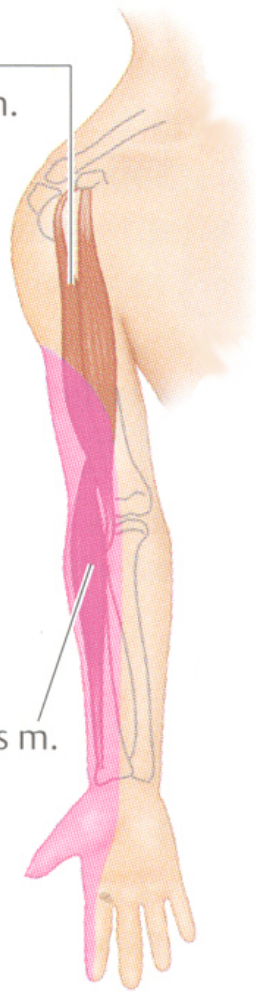
ER: Tonus, voluntær, anokutan/anal reflex  
 Blæreskanning - CES

**Waddells tegn**

- Uprop. smerter v/ let berøring
- Axial rotation/loading
- Siddende < liggende SBT

Biceps  
brachii m.

Brachioradialis m.



**C6**  
(Dermatome: dark red)

(Dermatome: dark red)  
**C6**

**L5**

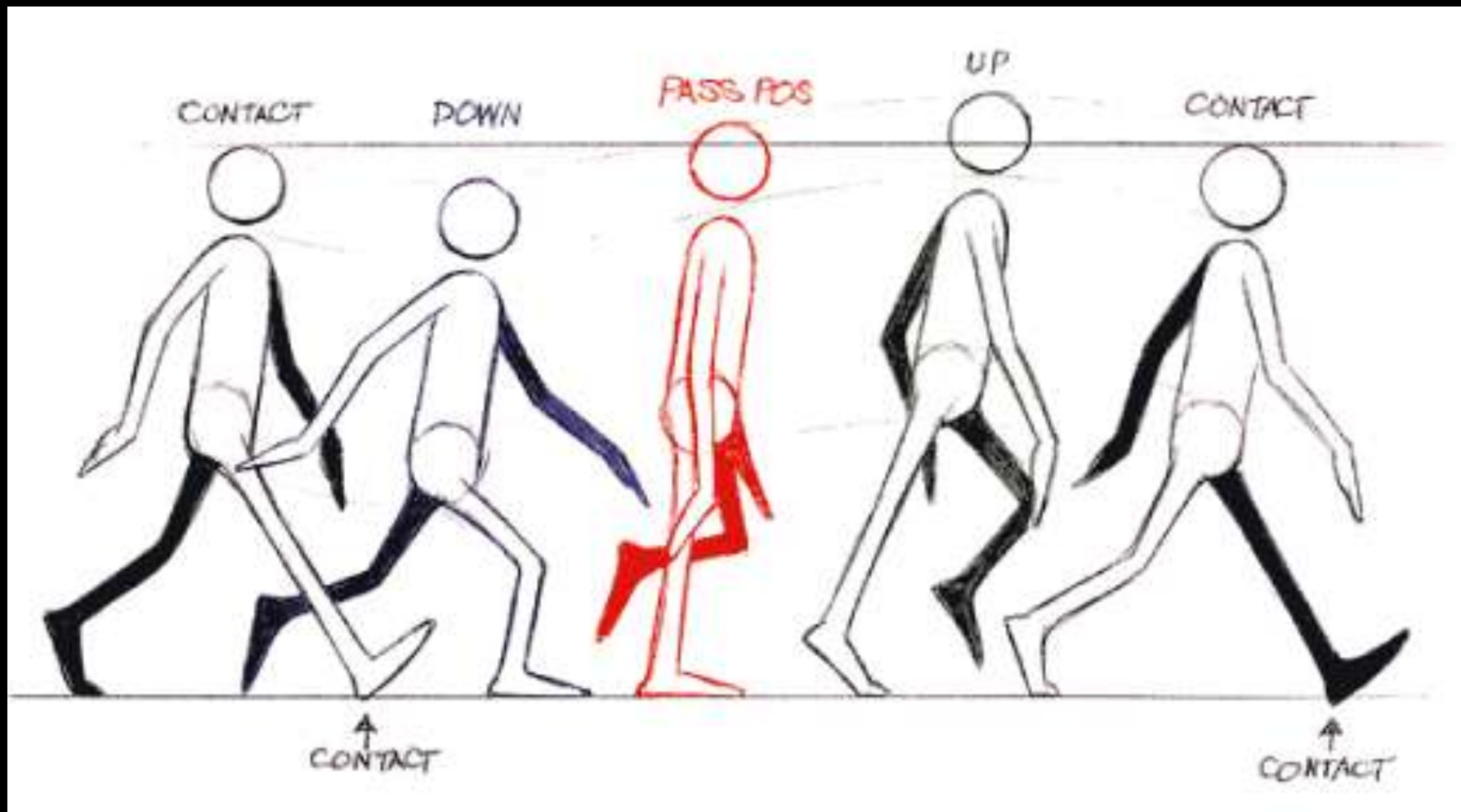
(Dermatome: green; gluteus  
medius m. not shown)

Extensor hallucis longus m.

Extensor digitorum brevis m.

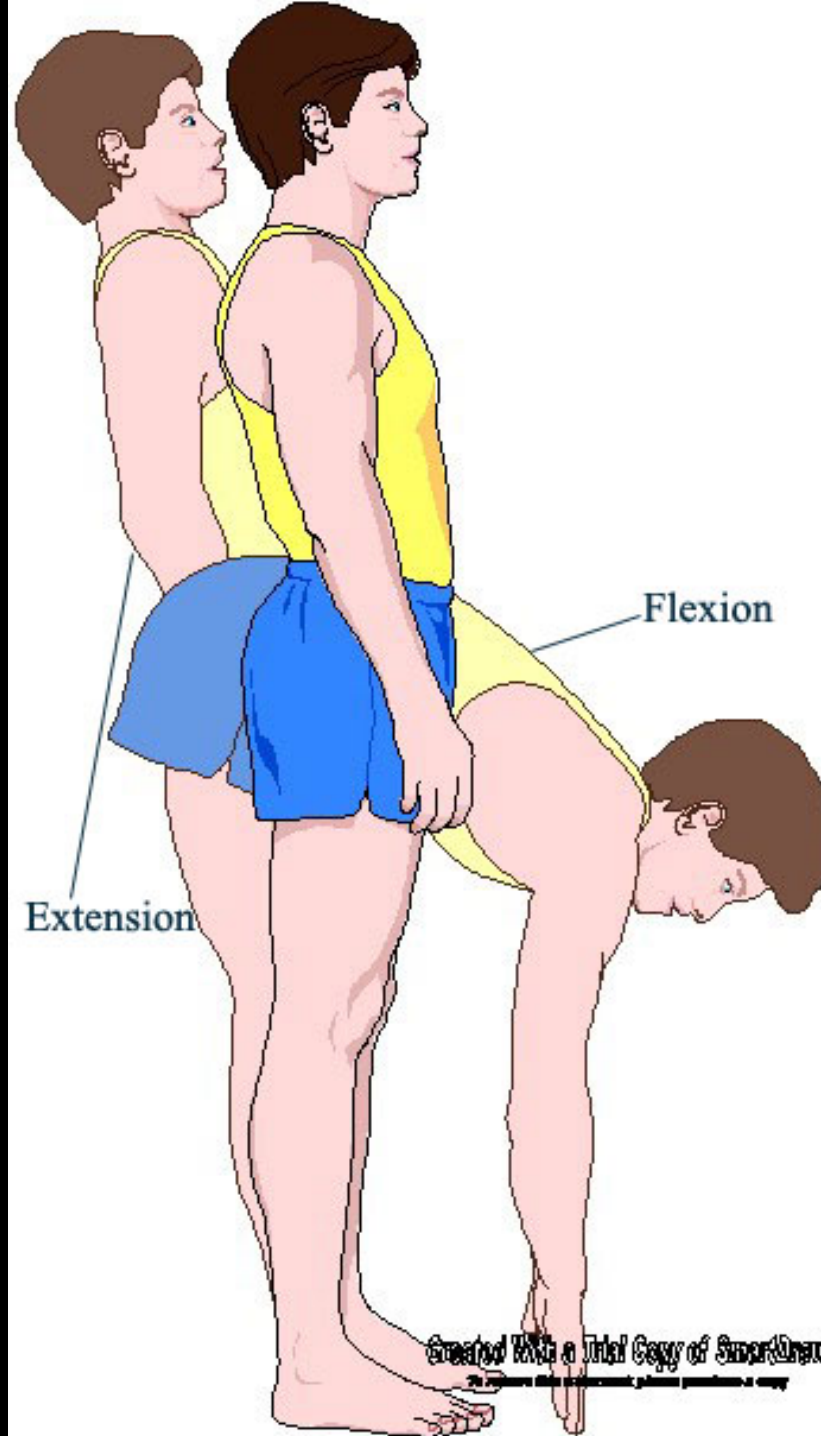






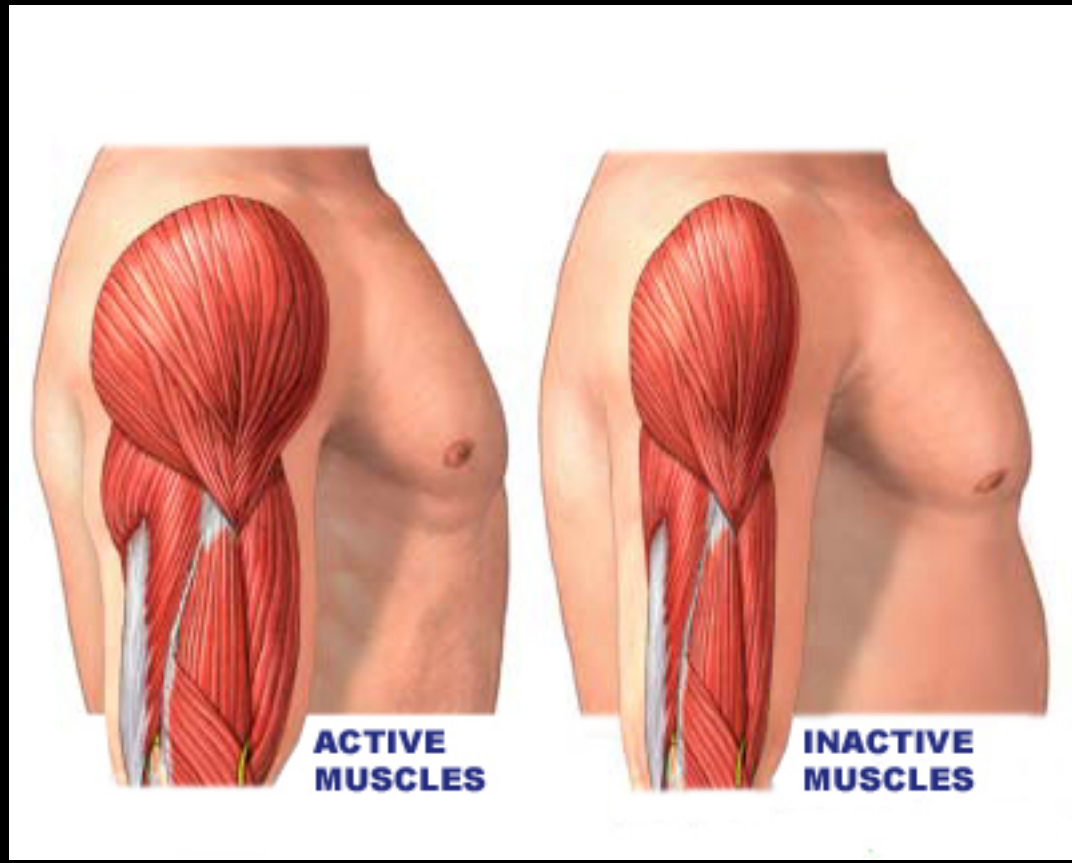


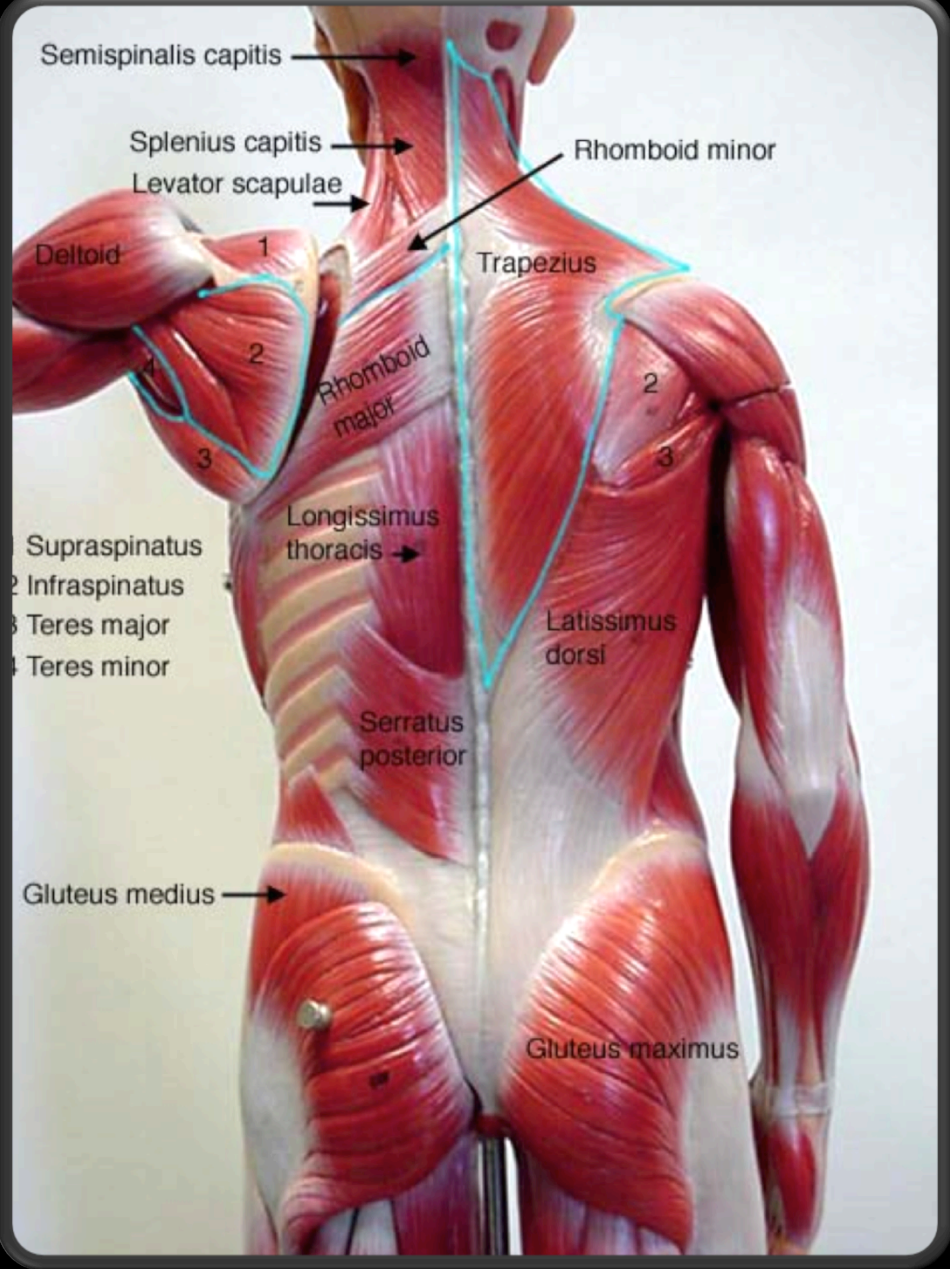


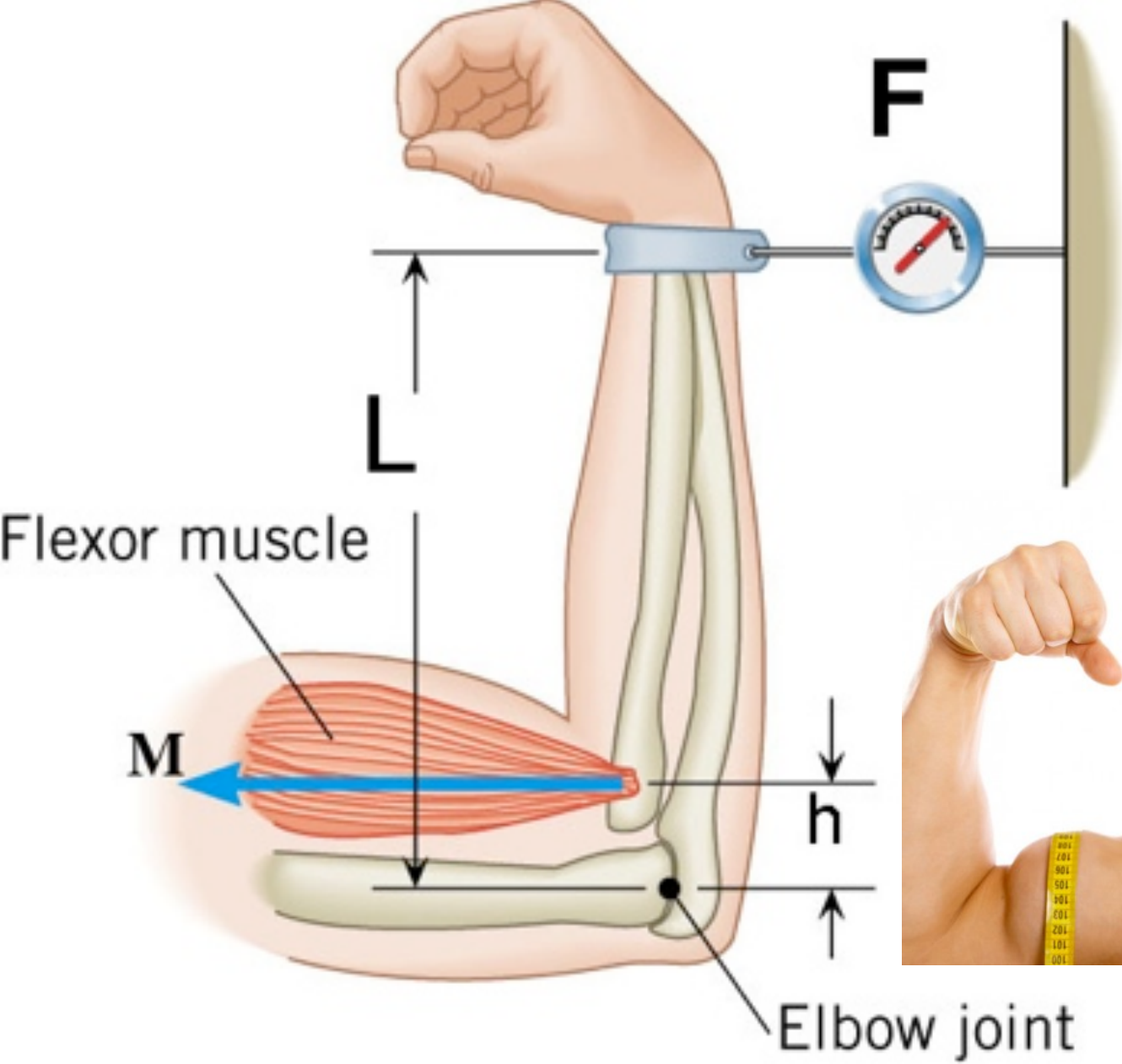


Extension

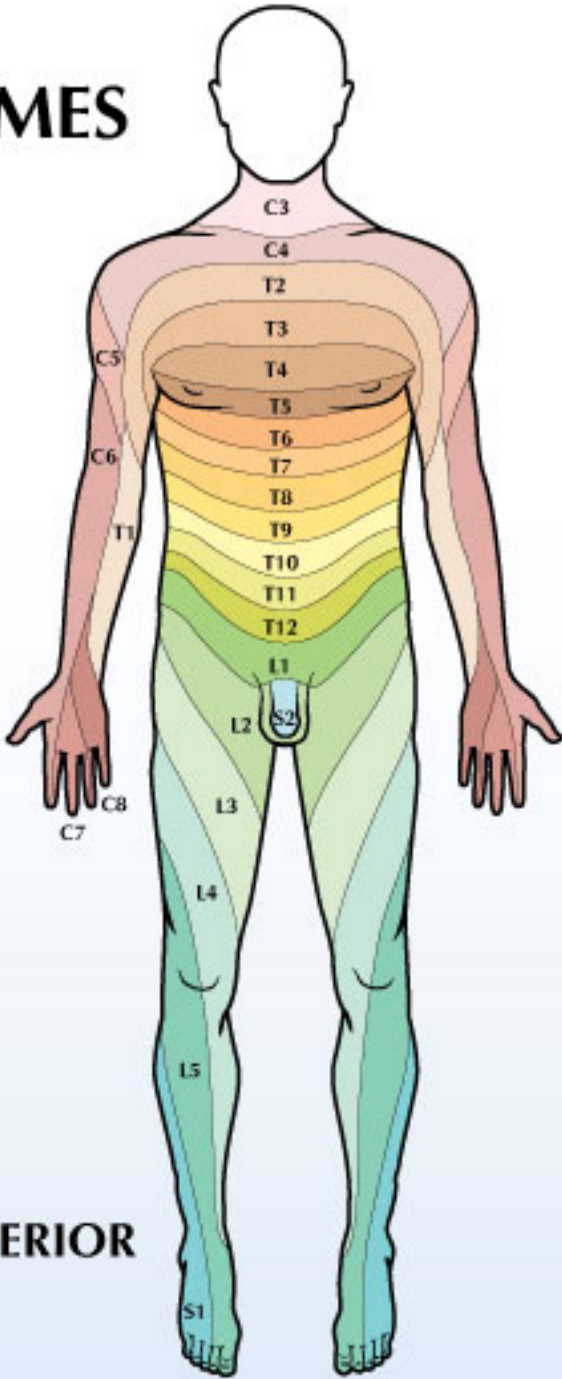
Flexion



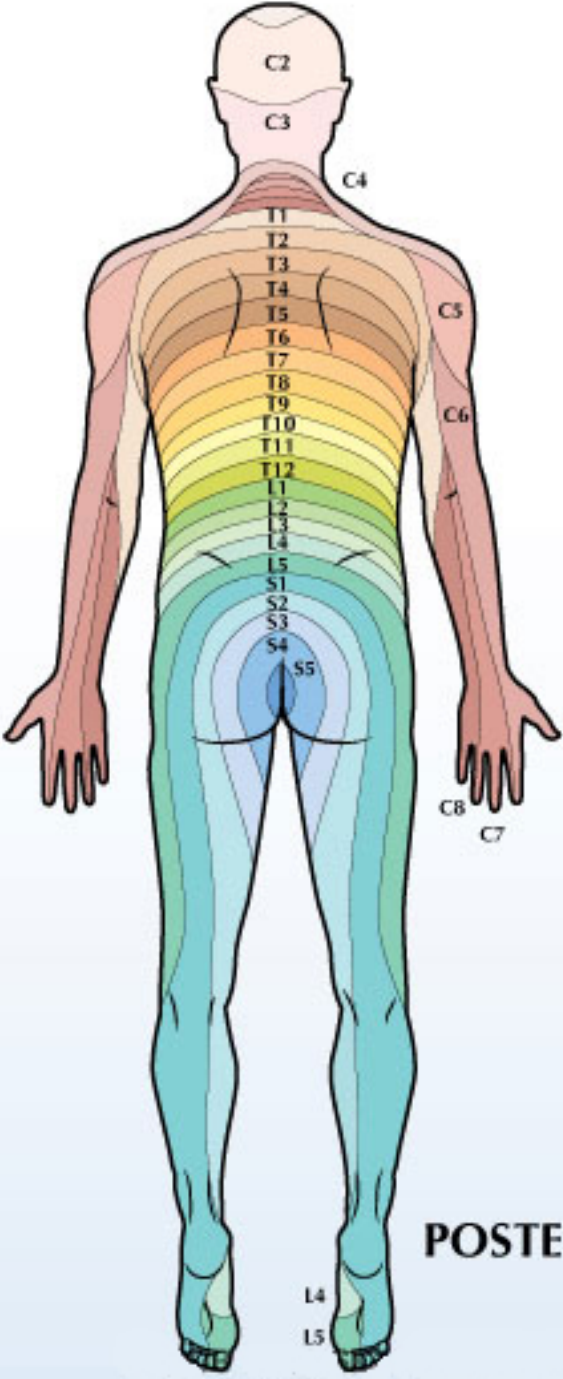




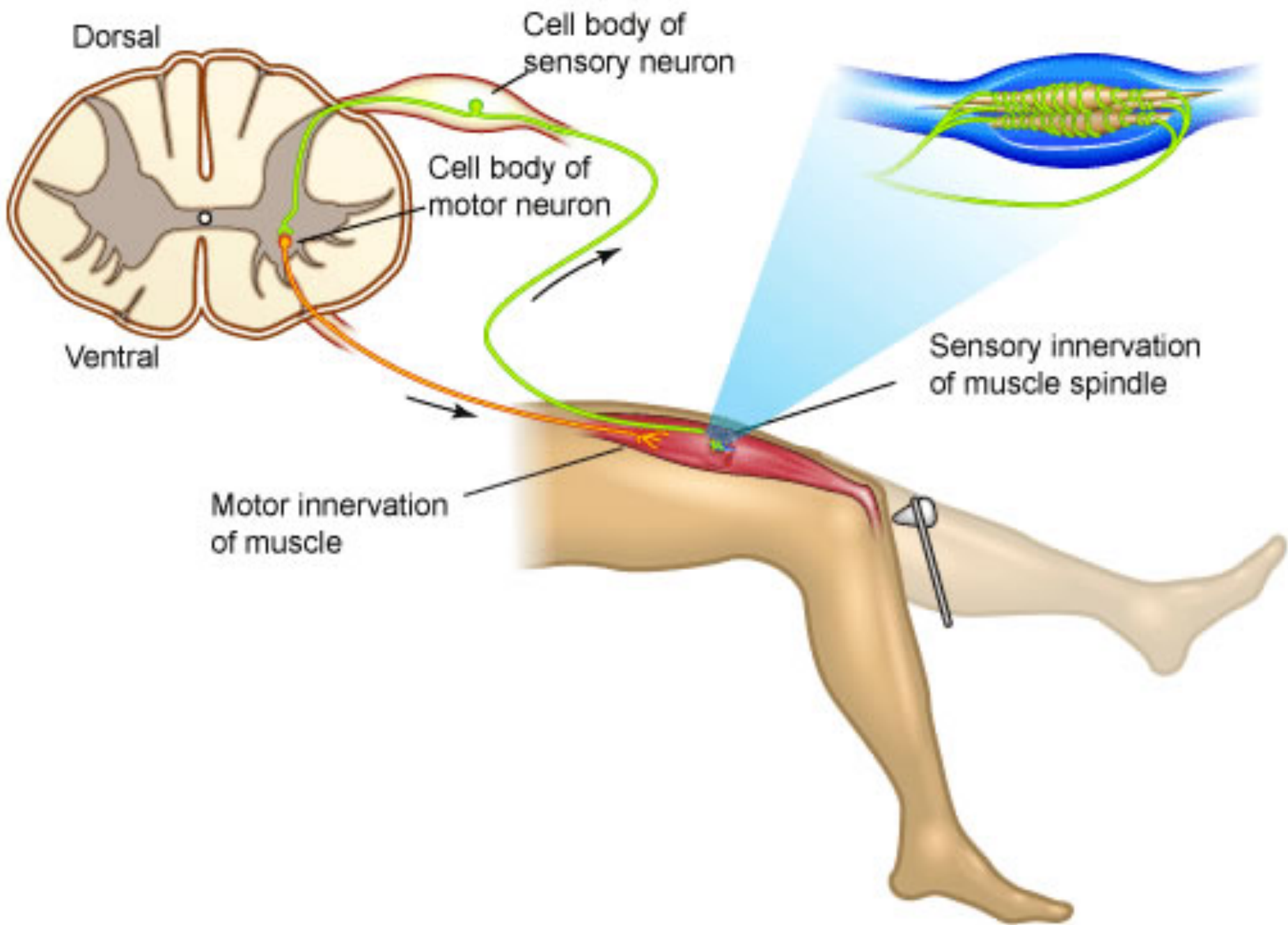
# DERMATOMES

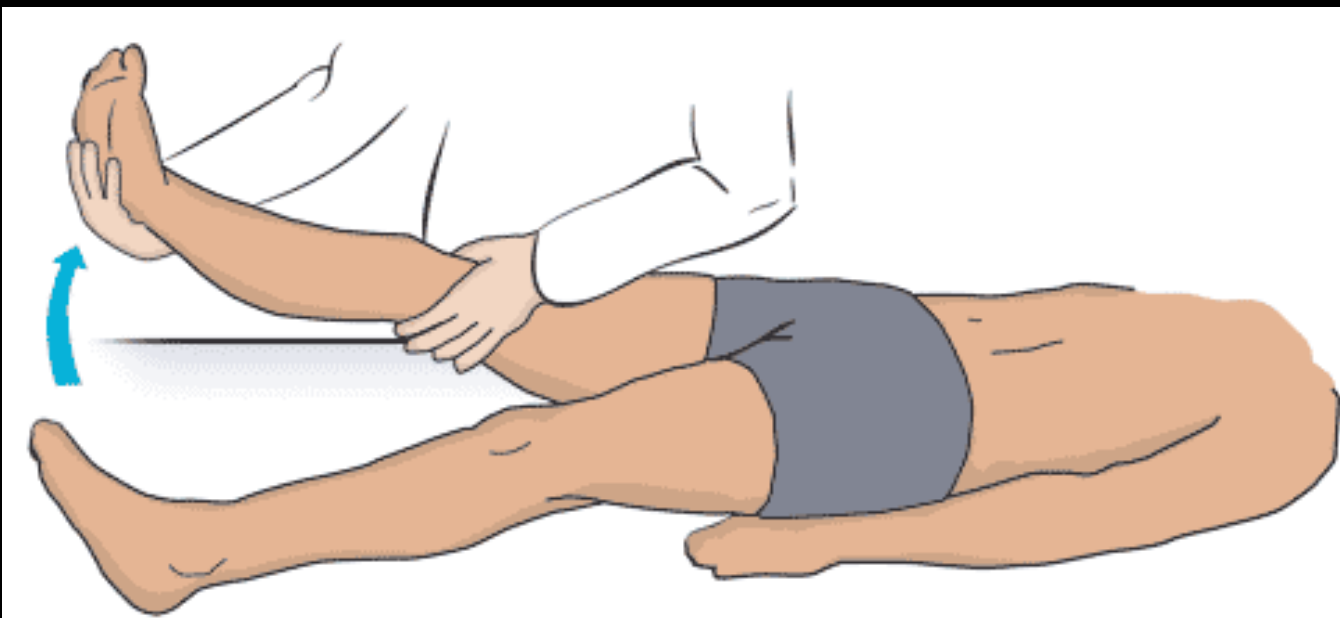


ANTERIOR



POSTERIOR







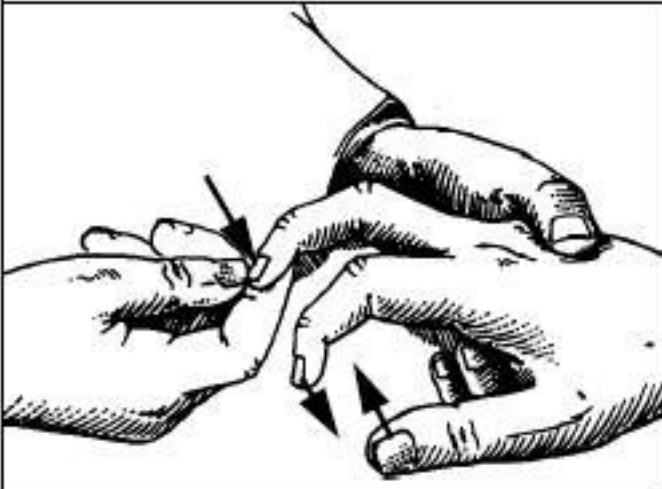
# 1. neuronstegn?



**Lesion of  
upper or lower  
motor neurons?**

# Ankel-klonus

# Babinski



Hoffman's  
reflex



# Supranukleær læsion

Upper Motor Neuron syndrome, CNS,  
"Pyramidebanelæsion", "1. neurons påvirkning",

- Hyperrefleksi
- Fodklonus
- Spastisk tonusøgning
- Babinskis tåfænomen
- Hoffman's refleks
- Sensibilitetsgrænse
- Para/tetraparese
- Blæreparalyse
- Evt. let atrofi

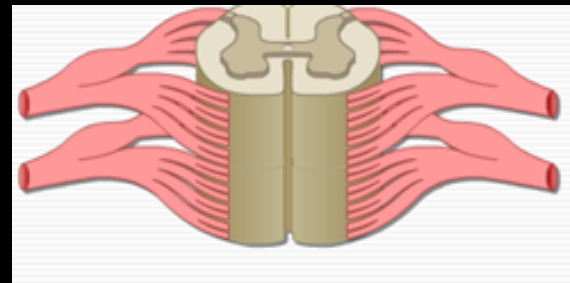
Eksempler: Cervikal eller thorakal myelopati. Akut medullært tværsnitssyndrom, evt. af **inkomplet** type: Brown-Séguard, centralt, anteriort, posterioert.

OBS: tidsfaktor for udvikling af de klassiske supranukleære tegn: **Spinalt shock** initialt med slap parese, manglende senerereflekser og atonisk blæreparalyse.

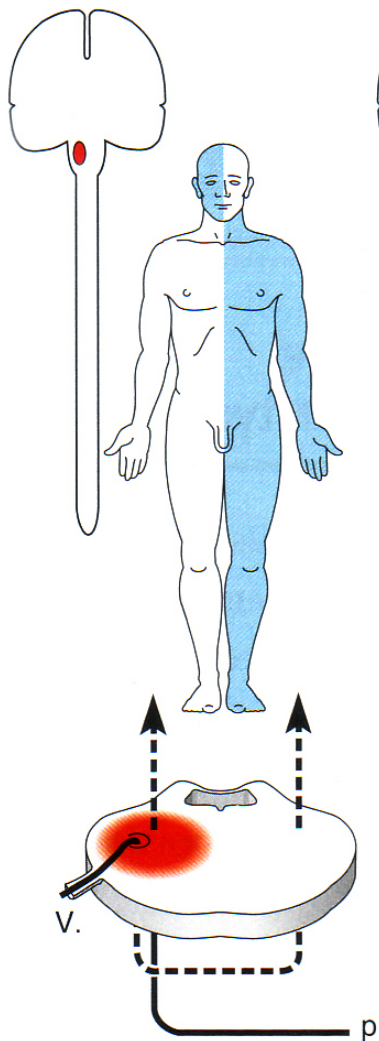
# Infra/nukleær læsion

Lower Motor Neuron syndrome, PNS,  
Perifer nervepåvirkning, "2. neurons påvirkning"

- Hyporefleksi
- Slap parese
- Svær muskelatrofi
- Fascikulationer
- Dermatomaafgrænsning

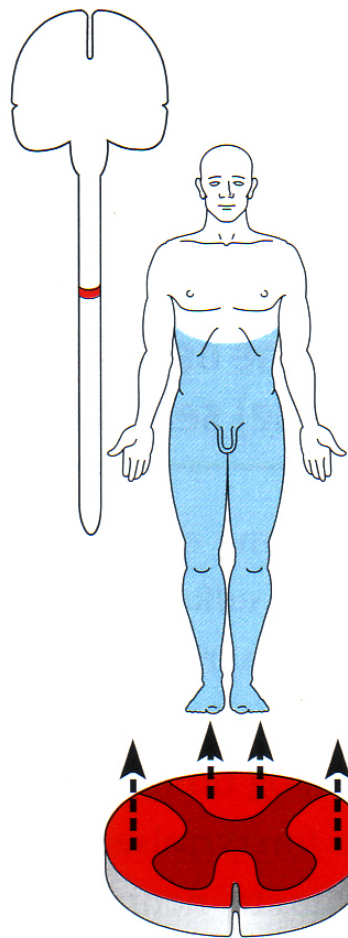


Eksempler: Neurogen claudicatio med påvirkning af de lumbosacræle nerverødder ved central lumbal spinalkanalstenose - giver bensmerter ved gang. **Cauda equina syndromet** med sfinkterpåvirkning herunder urinretention. Monoradikulopati ved prolaps eller rodkanalstenose, giver smerteudbredning i relevante dermatom. Evt. svær, progredierende parese (kraft grad 0-3) ved **rodinkarceration**



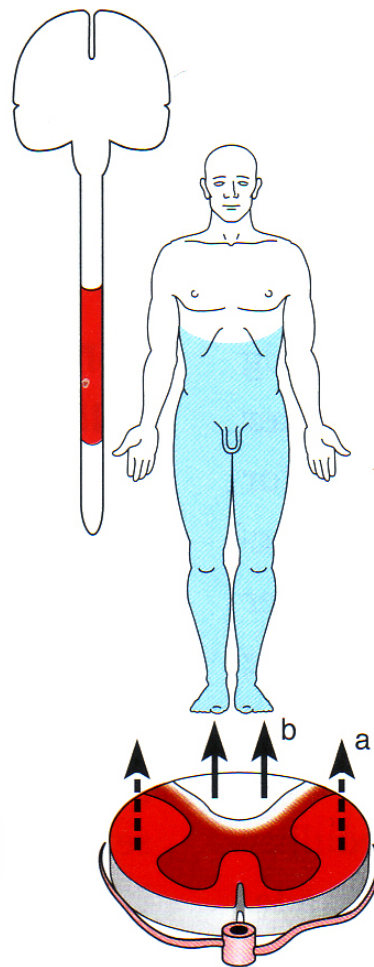
### Hjernestammelæsion (halvsidig)

(fx infarkt)  
Tab af smerte- og temperatursans samsidigt i ansigtet (n. trigeminus, V.) og modsidigt på krop og ekstremiteter (p).



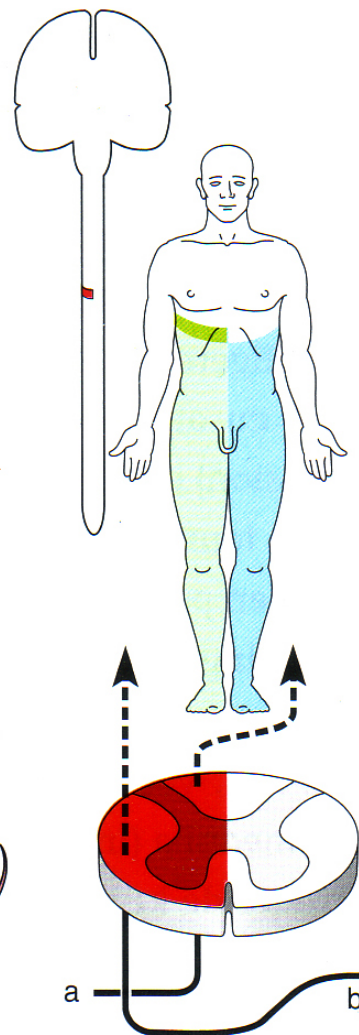
### Medullært tværsnitssyndrom

(fx kolumna-metastase)  
Tab af alle sensoriske modaliteter distalt for det pågældende medullære segment. (+ paraparesis inf.)



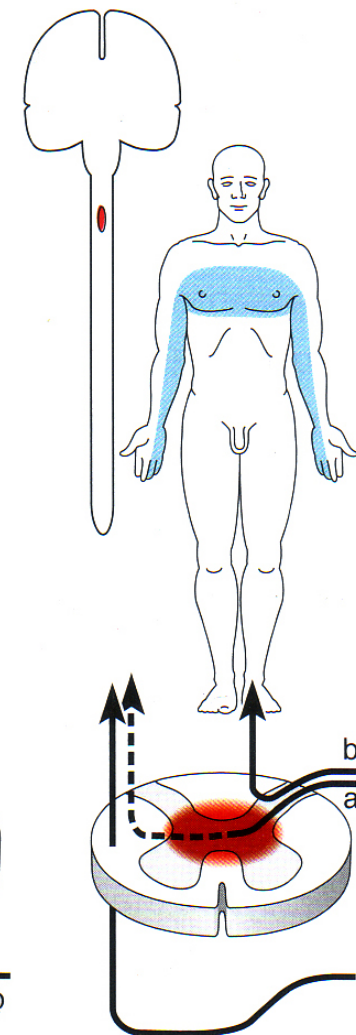
### Spinalis anticus syndrom

(fx trombose i a. spinalis ant.)  
Tab af smerte- og temperatursans (a), men bevaret stillings- og vibrationsans (b). (+ paraparesis inf.)



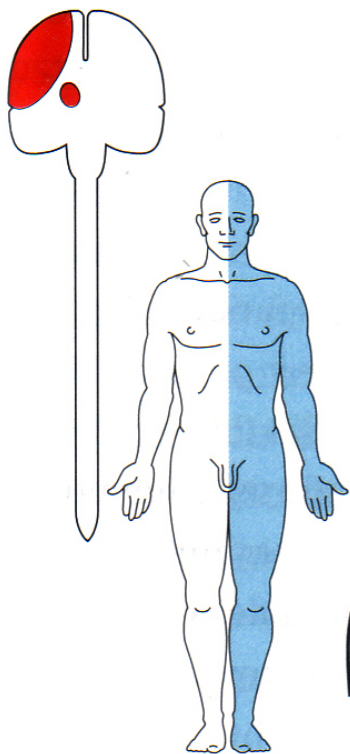
### Brown-Séquad syndrom

(Halvsidigt medullært tværsnitssyndrom)  
Samsidigt tab af stillings- og vibrationsans (a), modsidigt tab af smerte og temperatursans (b). (Samsidigt benparese)



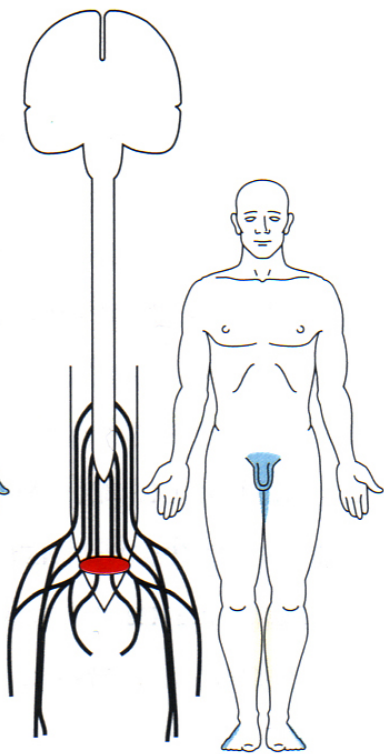
### Central medullær læsion (cervicalt)

(fx kontusion)  
Kyras-formet dissocieret sensibiliteets udfald svarende til flere dermatomer med tab af smerte og temperatursans (a), men bevaret berørings- og proprioceptiv sans (b). (Armparese)



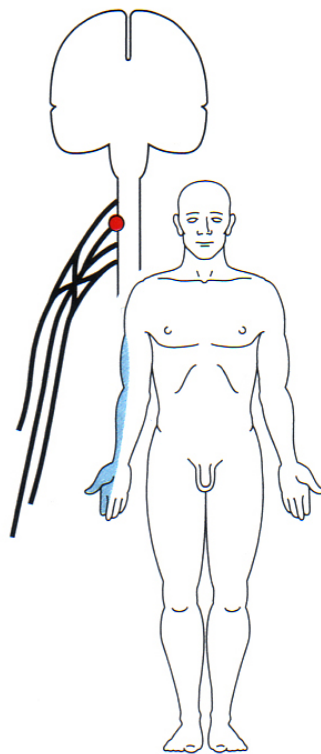
**Sensorisk cortex eller thalamus**

(fx apopleksi) Modsidigt hemiformt føletab. For sensorisk cortex desuden astereognose og sensorisk inattention.



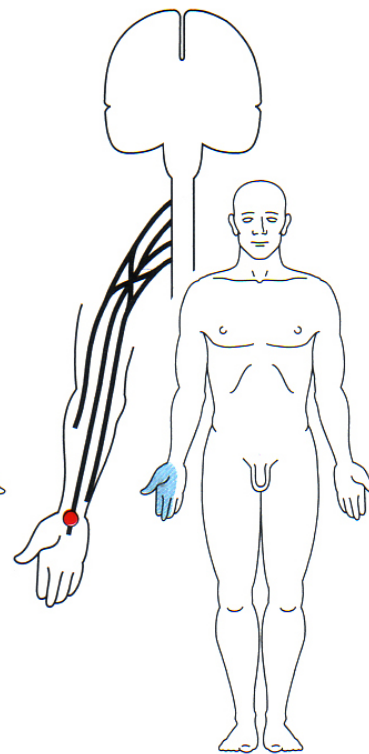
**Cauda equina syndrom**

(fx sakrale nerverødder S1-S5 ved stor L5 prolaps) Sensorisk tab i ridebukseområdet og S1-dermatomer.



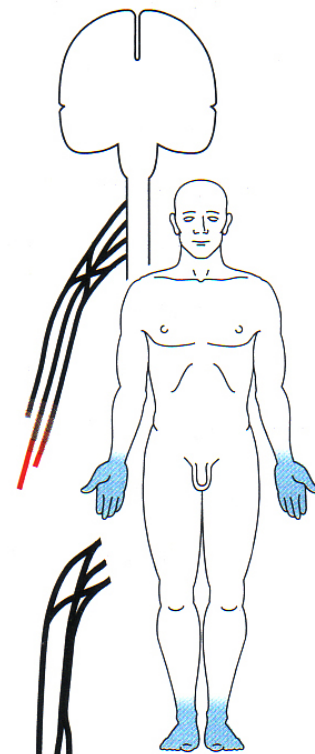
**Radikulopati**

(fx 6. cervikale nerverod (ved cervical diskusprolaps C5/6)) Sensibilitetstab i det pågældende dermatom.



**Mononeuropati**

(fx n. medianus ved carpaltunnelsyndrom) Sensibilitetstab sv.t. den pågældende perifere nerve distalt for læsionsstedet.



**Polyneuropati**

Handske- og sokformet sensibilitetsudfald.

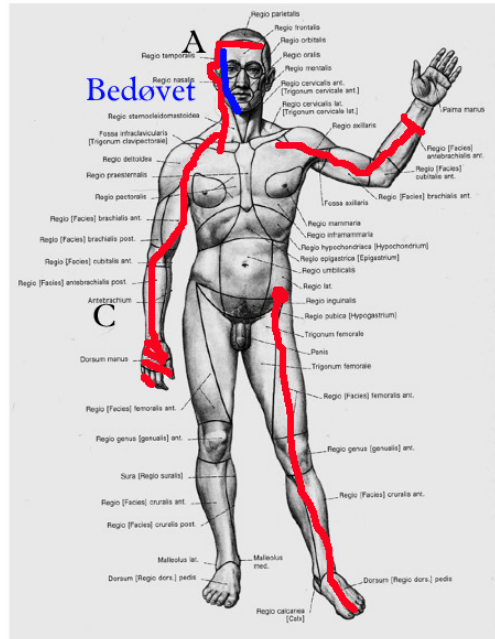
# Somatisering & funktionelle lidelser



**Er der bestemte faggrupper der (ikke) får piskesmæld?**



# Smertediagrammet

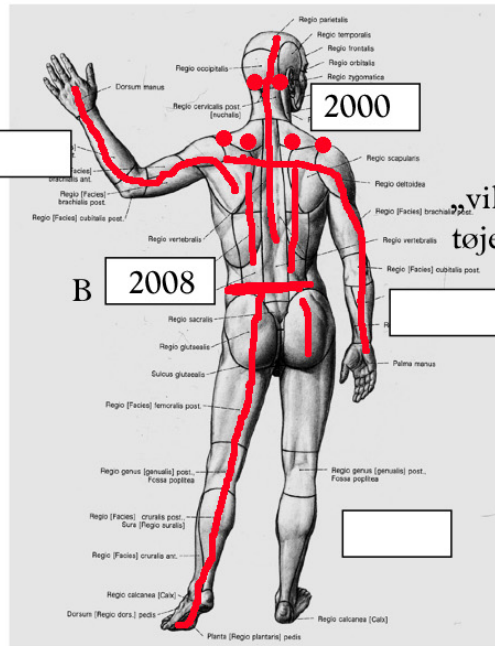


højre hånd



venstre hånd

**SMERTE (rød, x)**  
**MYREKRYB (grøn, Δ)**  
**FØLELSLØSHED (blå, o)**  
**NEDSAT BEVÆGELIGHED (□)**

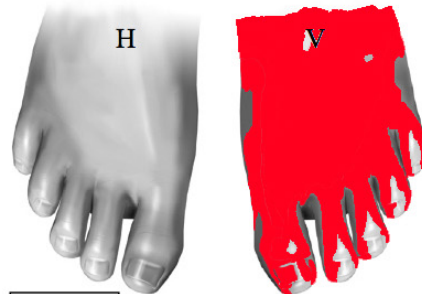


„vil tage tøjet af“



H

V



H

V

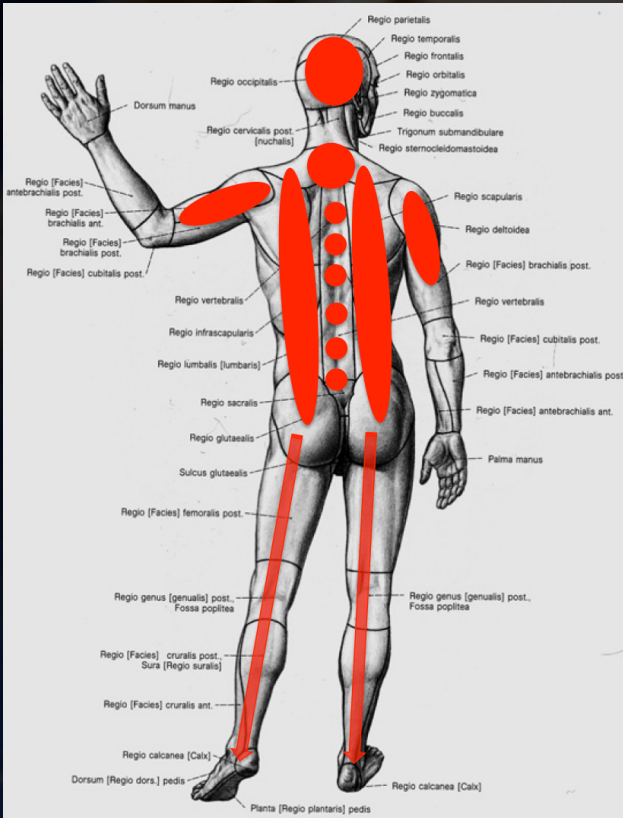
Disp

## Anfaldsvise smerter

# Flere subgrupper

- Smerter: fibromyalgi, piskesmæld
- PTSD/PNES: kendt psykotraume
- Depression
- Overbekymring: ved f.eks. cancer
- Forsikringssvindel: Crash-for-cash
- Almindeligt forekommende symptomer
- Aldersbetingede, degenerative forandringer
- Sekundær gevinst – bevidst eller ubevidst

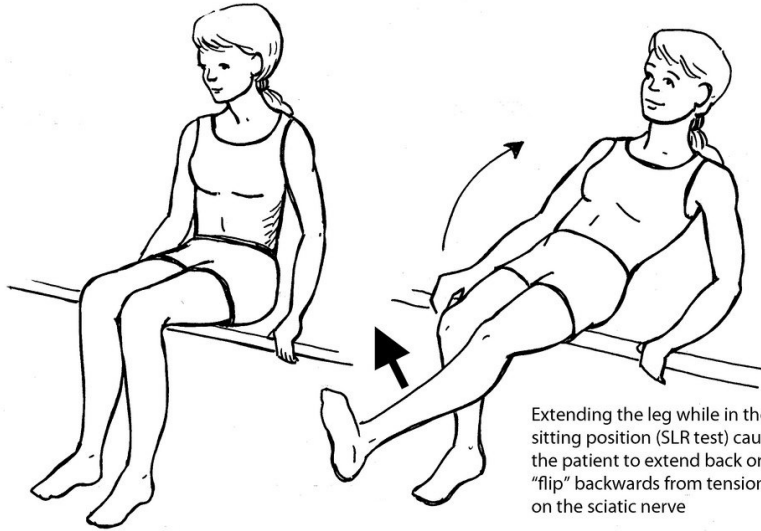
# Somatisering



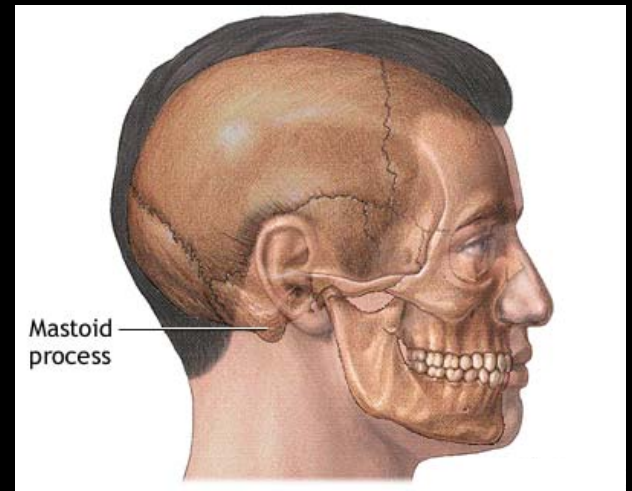
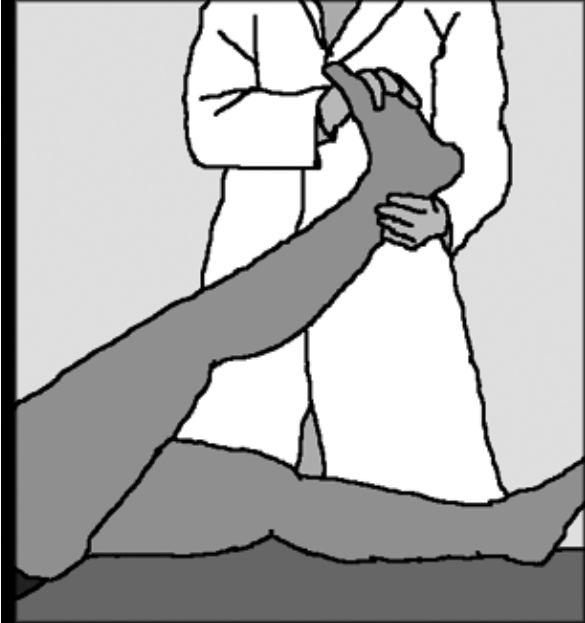
- Polysymptomatologi
- Overdriver symptomerne, symptomfiksering, atypiske symptomer
- Overdriver medicinforbruget eller udfald – kan afledes
- Underdriver funktionsniveauet
- Waddell

# Smerteproprovokation

Positive Flip Test



Extending the leg while in the sitting position (SLR test) causes the patient to extend back or "flip" backwards from tension on the sciatic nerve



# Behandling af somatisering

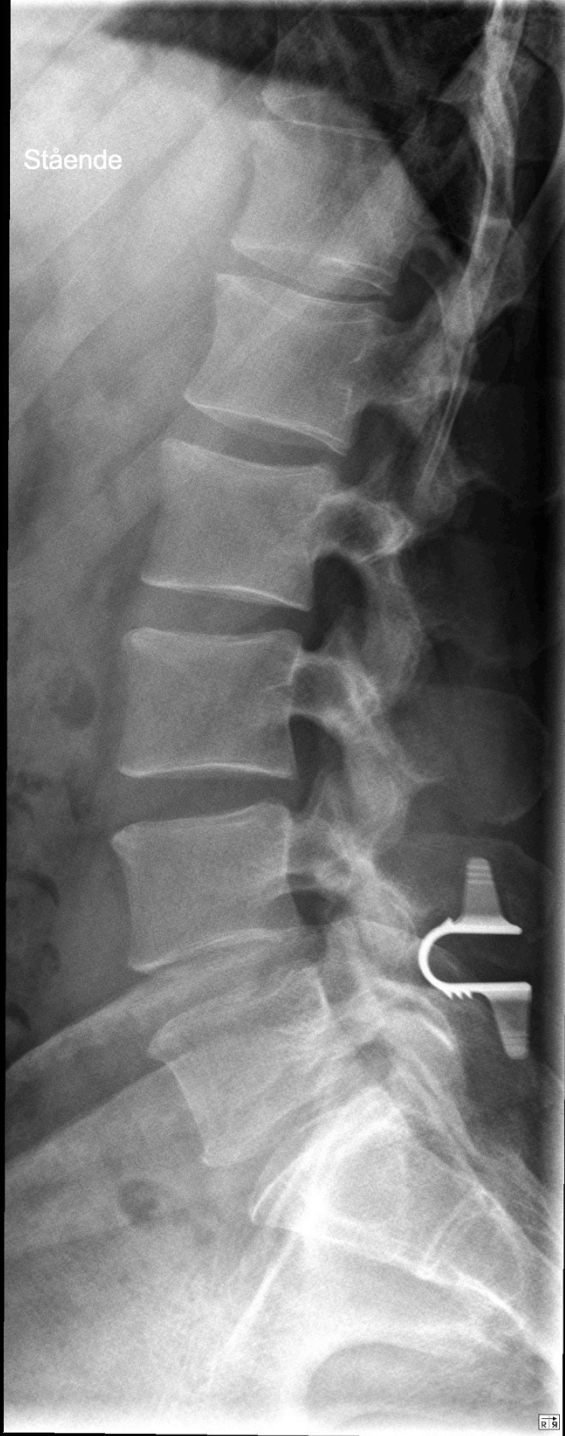
- "Intet hjælper"

## • Psykoterapi

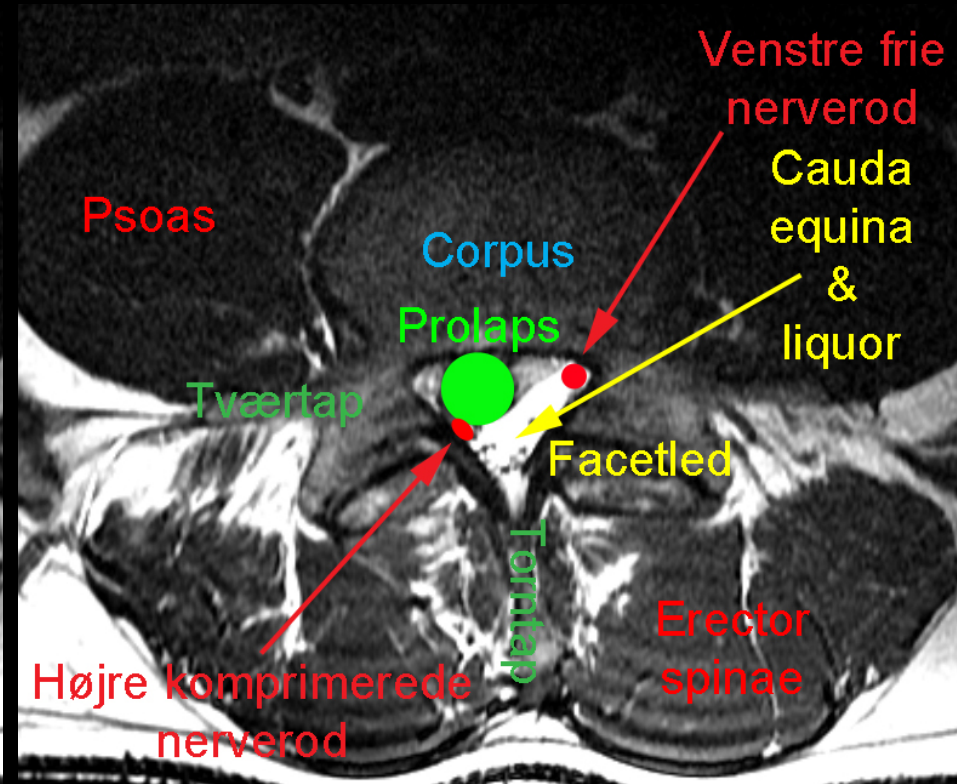
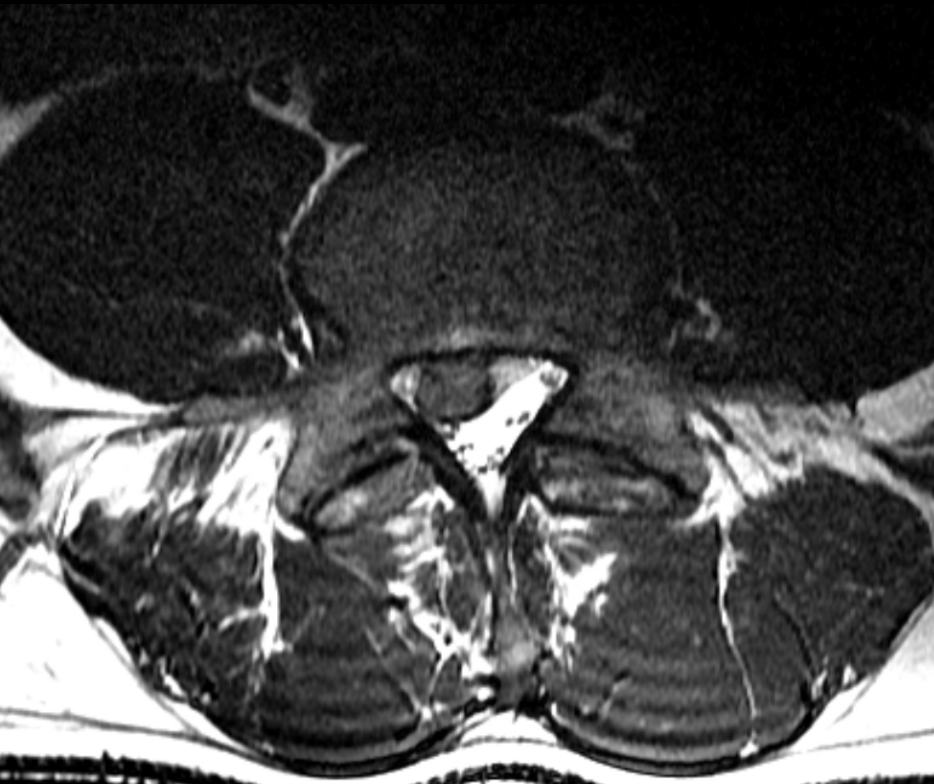
- Let medicinering evt. SSRI
- Social afklaring inkl. forsikringsager
- Genfinde livsmening

**Radiologi**

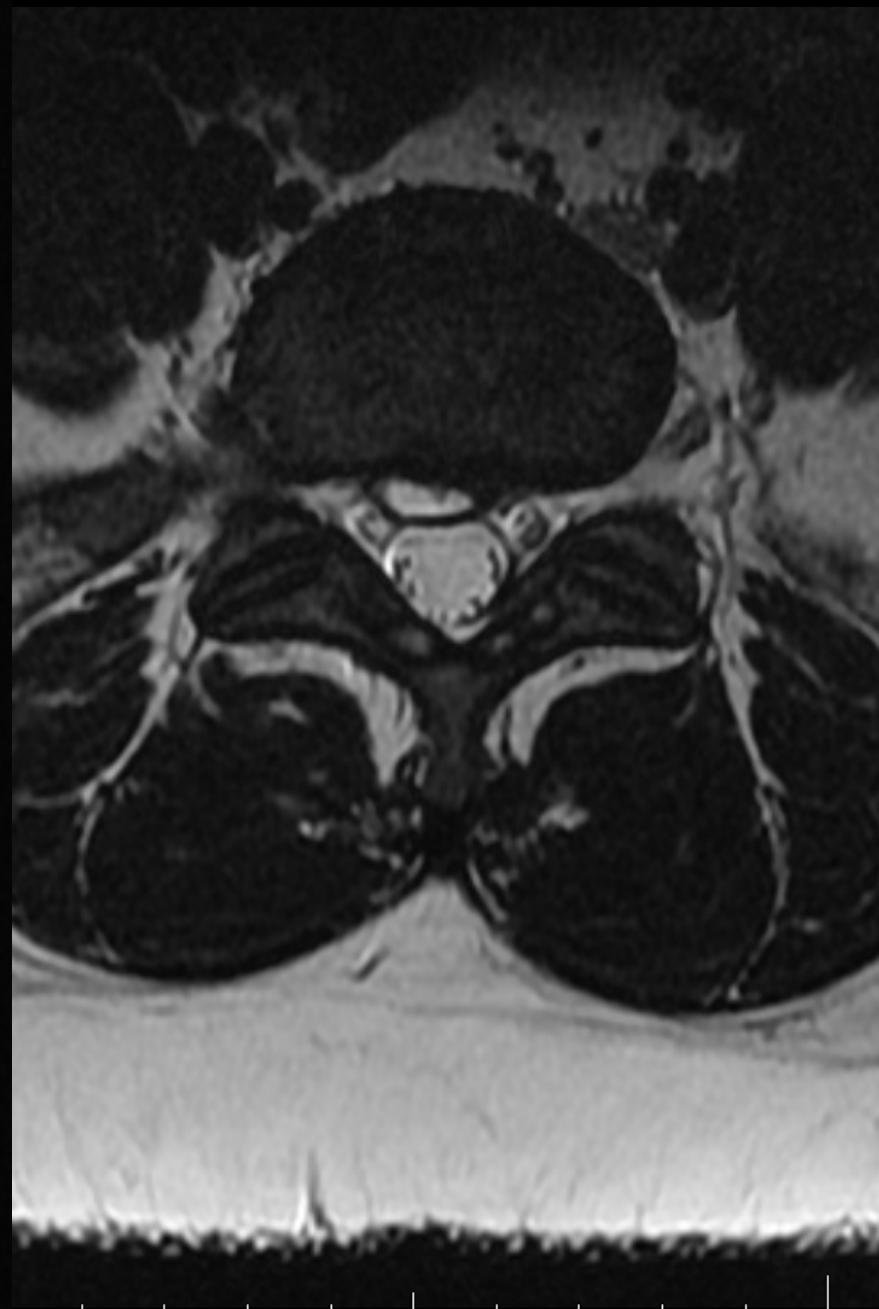
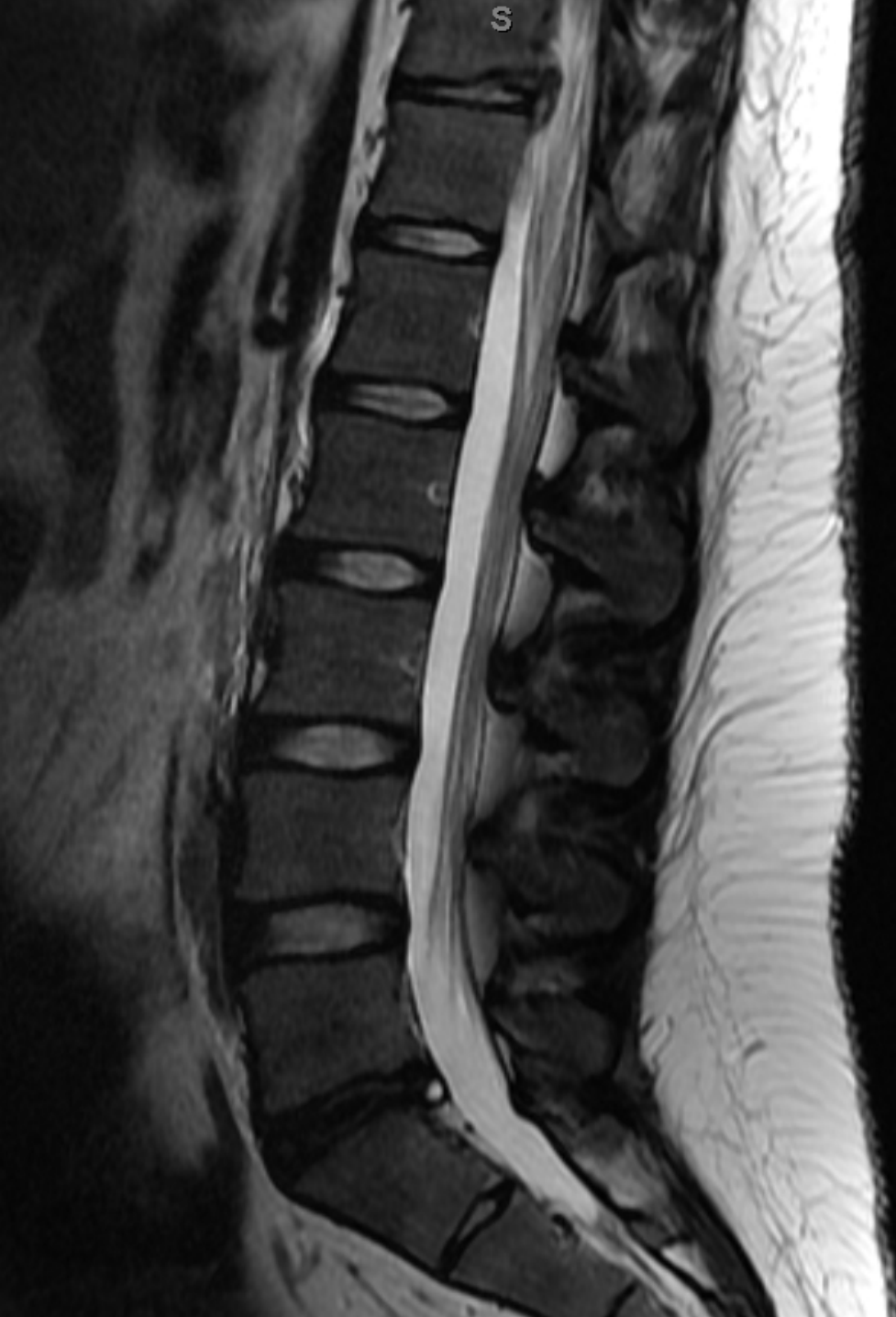
Stående



# MR-skanning (Hor T2)

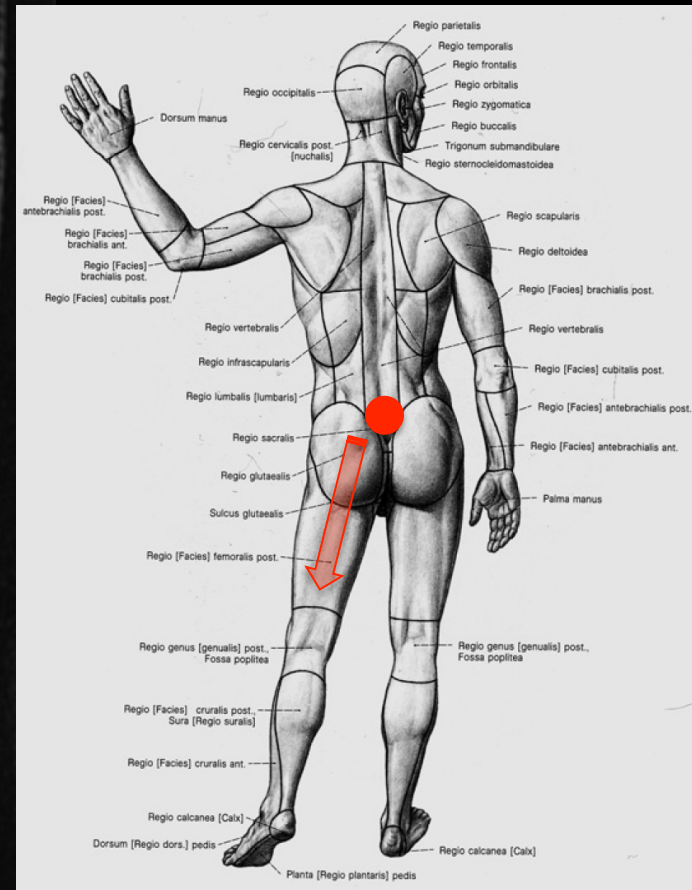
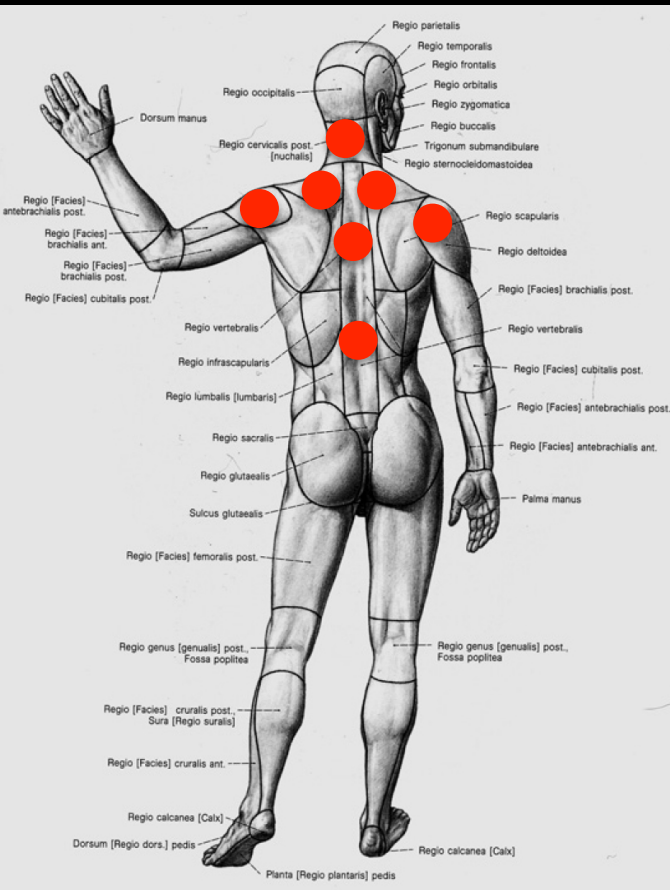






# Hvilken smertegenerator?

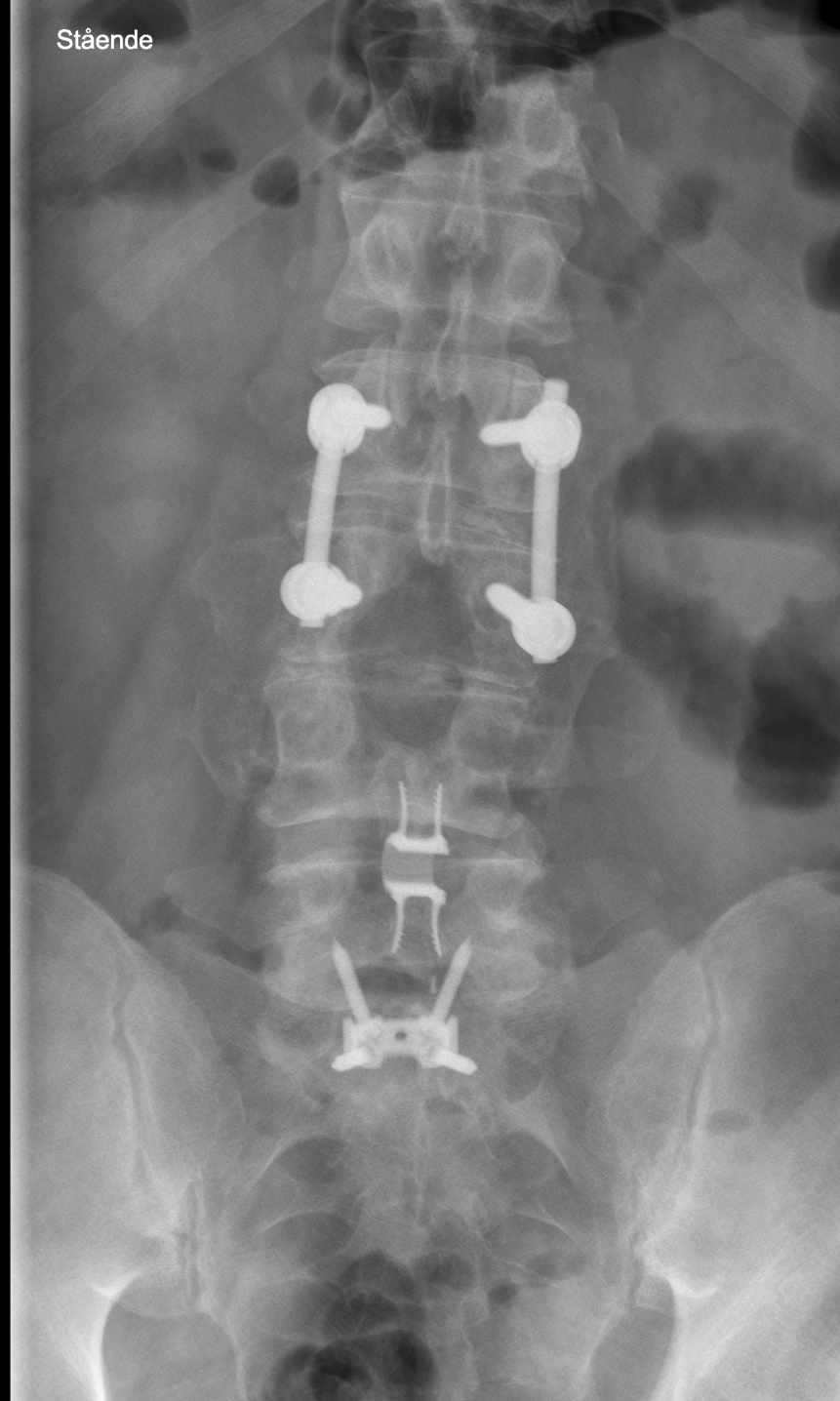
Diskus? Facetledsartrose? Rodtryk? Myoser? Gigt?

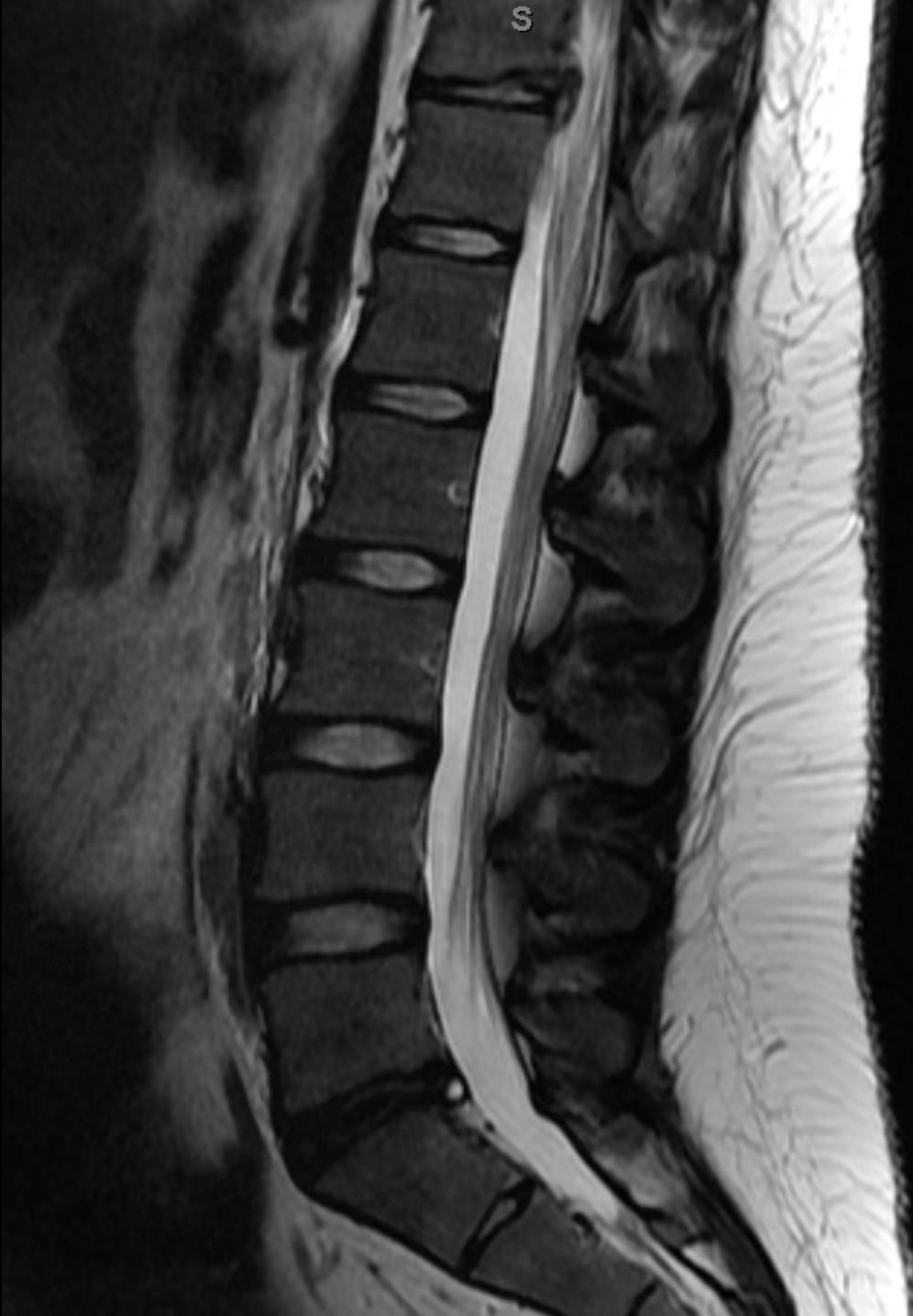


Stående



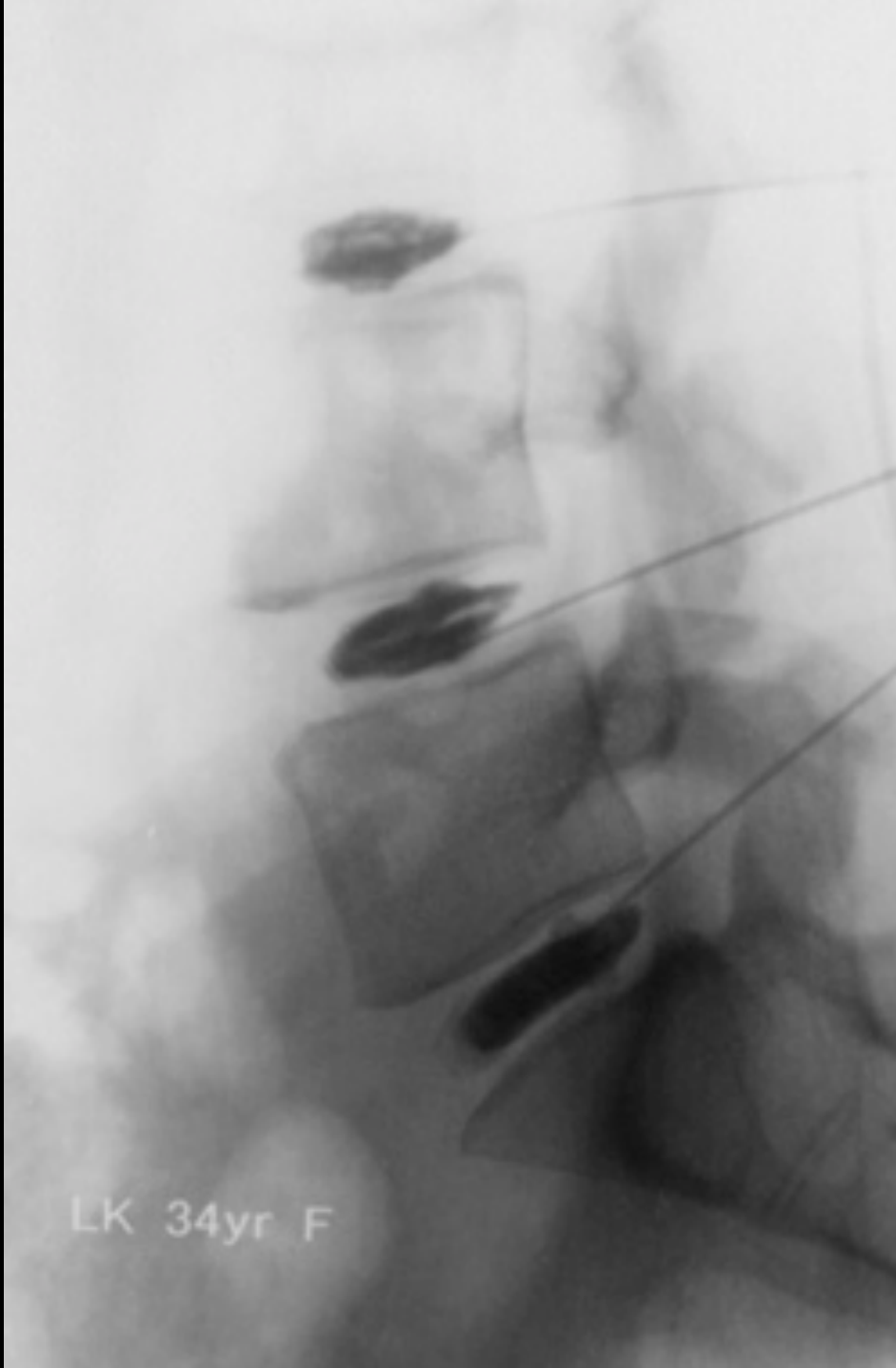
Stående











LK 34yr F

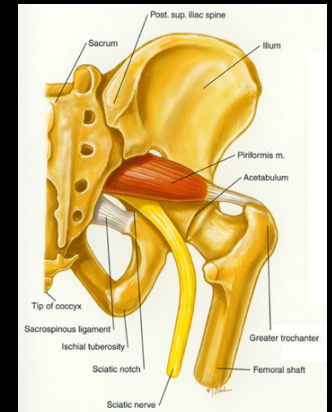
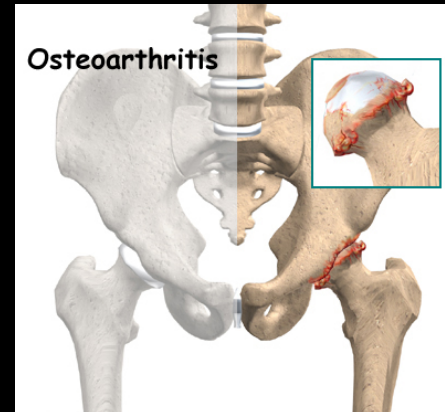
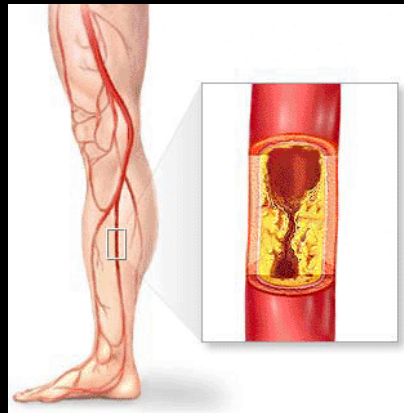
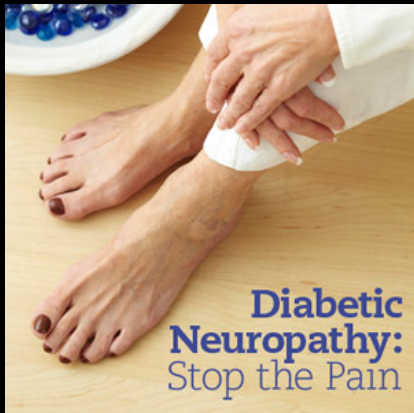
Differential-  
diagnoser



# Differentialdiagnoser

- Polyneuropati
- Vaskulær claudicatio
- Hofteartrose
- Myoser (fx piriformis)
- SI-led

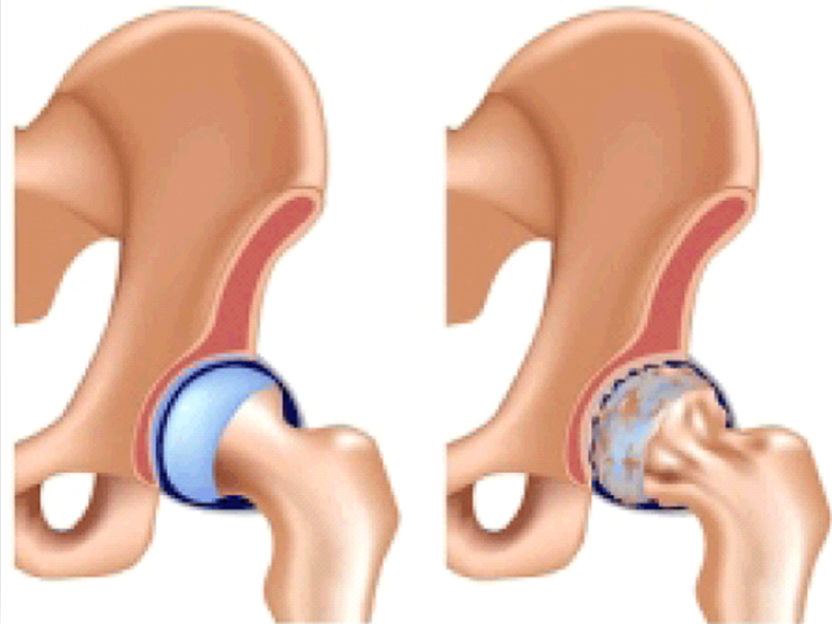
Neurofysiologisk us.  
DBT/A-grafi  
Indadrotation  
FAIR test  
FABER test



# Bækken, hofte, lår

- Bruskskader i hofteleddet
- Bækkenløsning
- Calvé-Legg-Perthes sygdom
- Chaplin-fødder
- Epifysiolyse i hoften
- Halebenssmerter
- Hoften ude af led
- Hofteskålen, brud
- **Hofteslidgigt** (hofteartrose)
- Lyskeskade
- Lårben, indadroteret
- Medfødt hoftefejl (hofteledsdysplasi)
- Piriformissyndromet
- Serøvs coxitis
- Strækskade, bagside lår.
- Total hofteprotese
- Trokanterbursit
- Trælar

Arv  
Alder  
Overvægt  
Tidligere brud  
Misdannelse  
Infektion  
Bechterew

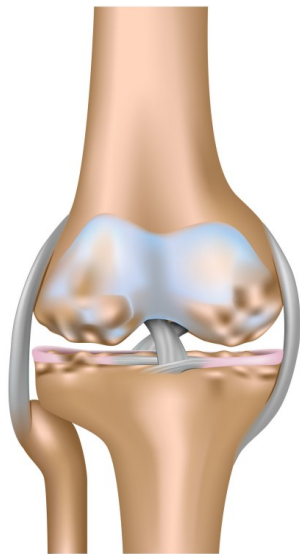
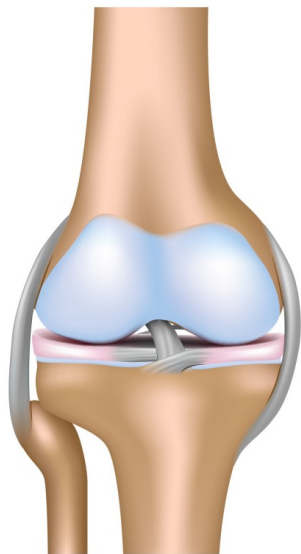
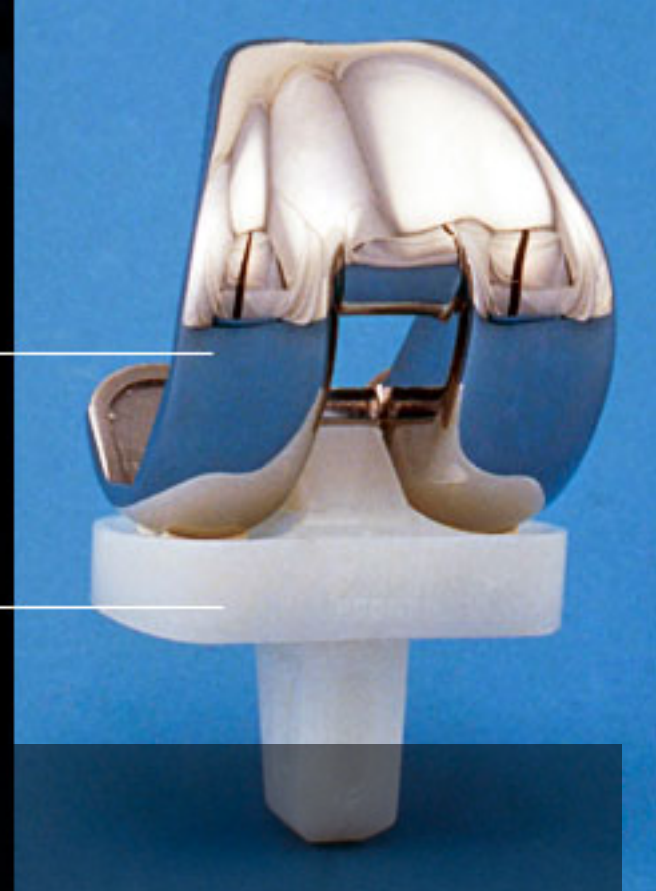


*Healthy joint*

*Osteoarthritis*

# Knælidelser

- Bursit i knæet
- Løberknæ - runner's knee
- Sideledbåndskade
- Knæledsprotese
- Korsbåndskade, forreste
- Patellofemoral artrose
- Popliteustendinopati
- Bakers cyste
- Jumpers knee (patellar tendinopati)
- Korsbåndskade, bagerste
- Meniskskader i knæet
- Anserinus tendinit
- Osteochondritis dissecans
- Sinding Larsens sygdom
- Patellofemoralt smertesyndrom
- Schlatters sygdom
- Knæsmerter
- Knæskallen gået af led
- **Slidgigt i knæet (knæartrose)**



Healthy knee joint

Osteoarthritis

Alder  
Overvægt  
Tidligere skade  
Leddegigt  
Kalveknæ/hjulben  
Arbejde med mange dybe  
knæbøjninger

# Skulder og overarm

- AC-led skade
- Acromioclaviculær artrose
- Plexus brachialis skade
- Rotatorcuffen, skade
- Frossen skulder (kapsulit)
- Skulderprotese
- Skuldebursit akut, bursit
- Skulder, senebetændelse
- Skulderbursit, kronisk
- Skulderen ude af led
- Radialisskade

**Behandling**







# Medicintrappen

**Naropin®**  
(ropivacaine HCl) Injection  
**0.2%** (2 mg/mL)  
For Infiltration, Nerve Block, and Epidural Administration Only. Not for Intravenous Administration.

## Håndkø



Small text: Simulmedikation, Vnr. 47 28 74, 20 tabletter  
**ipren**  
200 mg Ibuprofen  
**EFFEKTIV MOD MUSKEL- OG LEDSMERTER**

## Recept

NDC 0591-3968-01  
**CHLORZOXAZONE**  
Tablets, USP  
**500 mg** (35 RB)  
New Tablet Appearance  
Watson  
100 Tablets Rx only

**IBUPROFEN, 600MG**  
**Ibuprofen 600**  
Cipla  
ADMINISTRARE ORALA

## Morfika



**CONTALGIN®**  
**60 mg**  
morphin. sulf.

## Nervemedicin

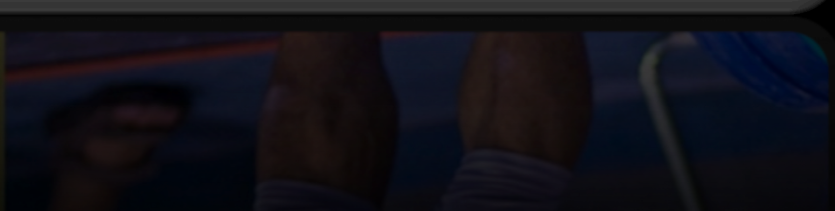
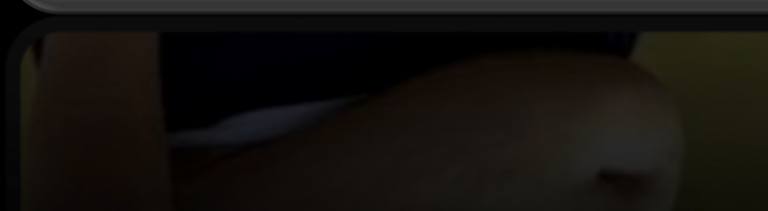
# Saroten®

Amitriptyline hydrochloride

**LYRICA®**  
**75mg** PREGABALINA  
cápsulas  
Caja con 28 cápsulas

**GABAPENTIN**  
100mg Hard Capsules  
Gabapentin  
MORNINGSIDE HEALTHCARE







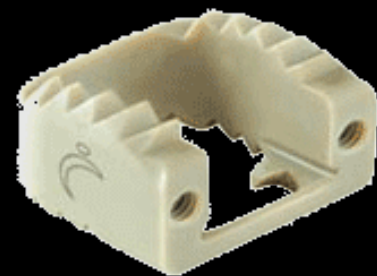
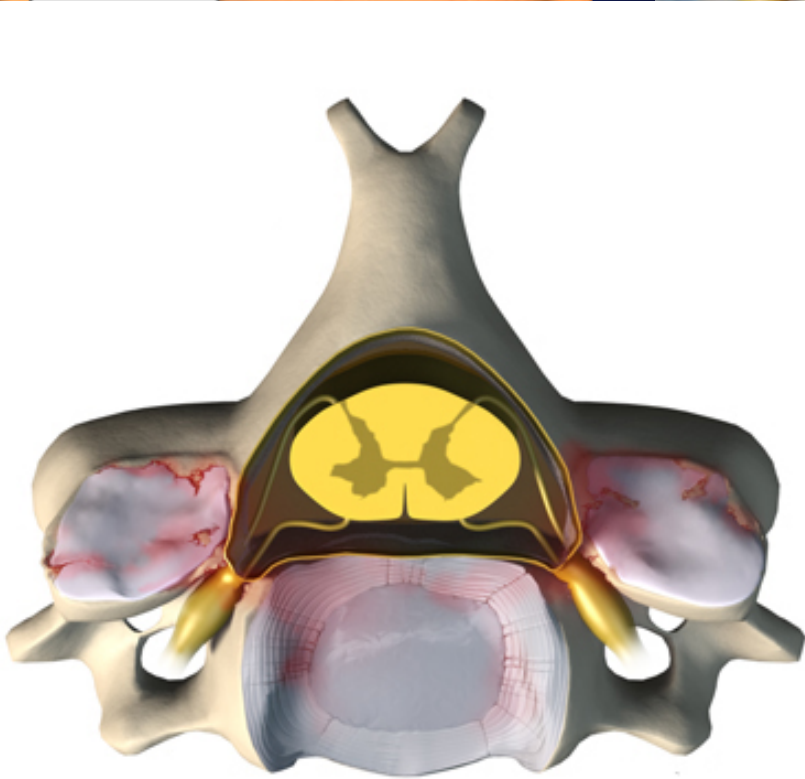
**FORVENTNING**

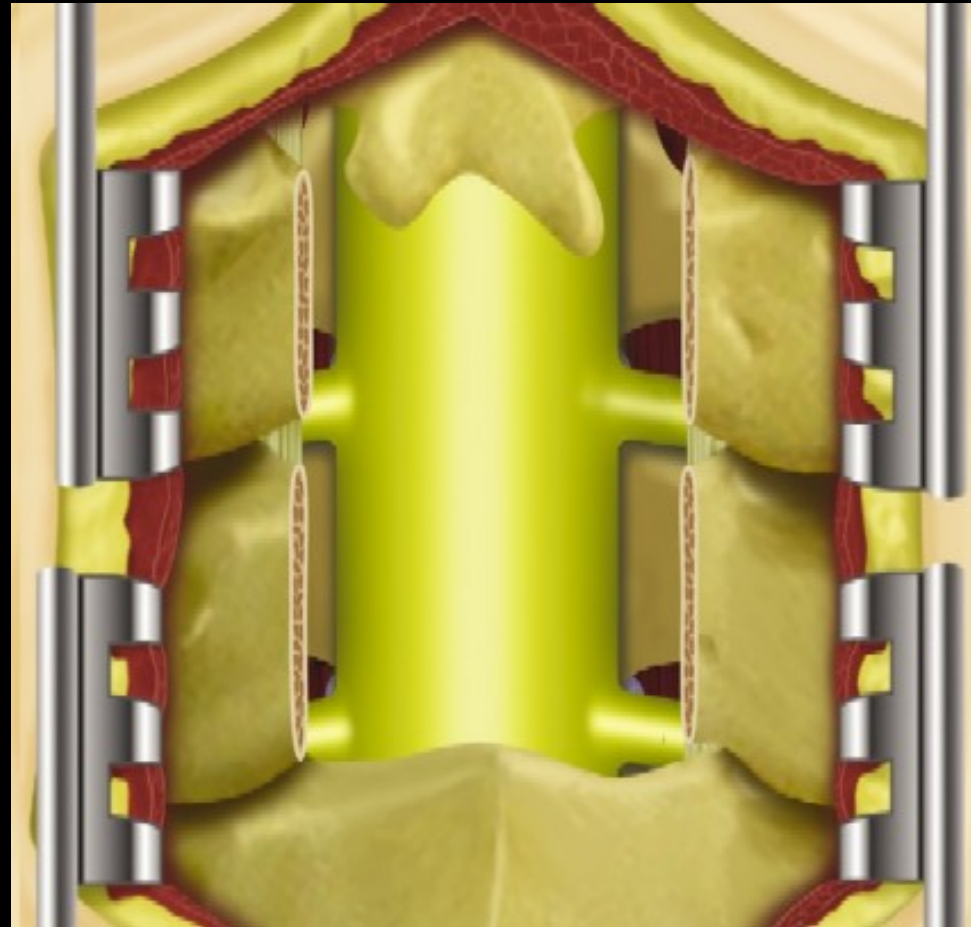
Tiden?  
Glødejernet?  
Sygemelding?  
Pension?

”Rygvrag?”

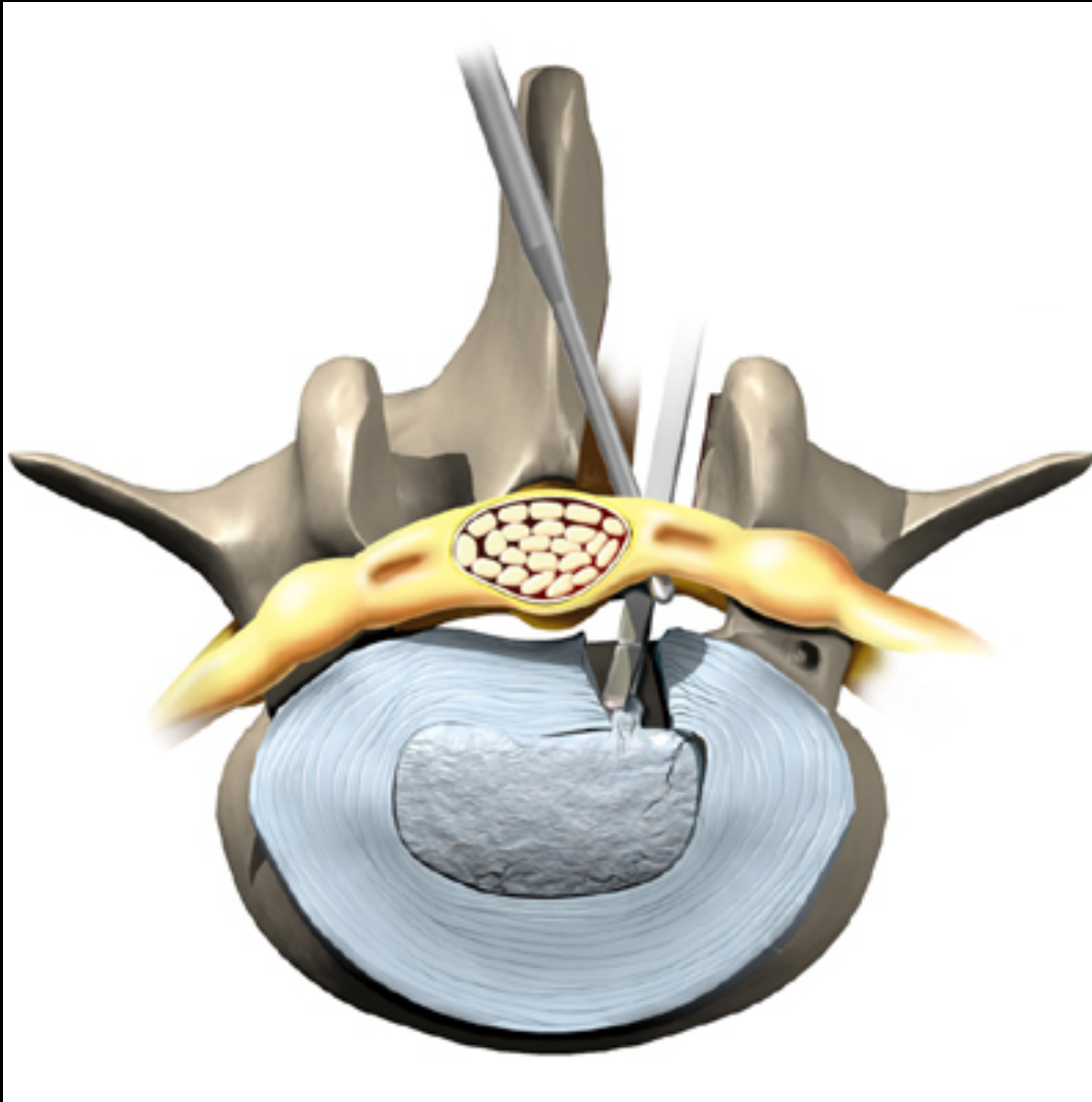
# RYGKIRURGI

- Dekompression (frilægning)
- Spondylodese (stivgøring)
- Korrektion (opretning)

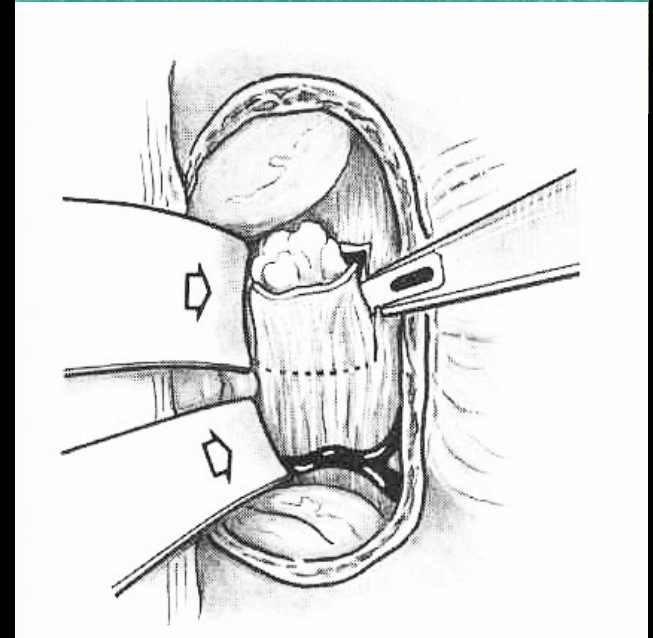




# Partiel hemilaminektomi

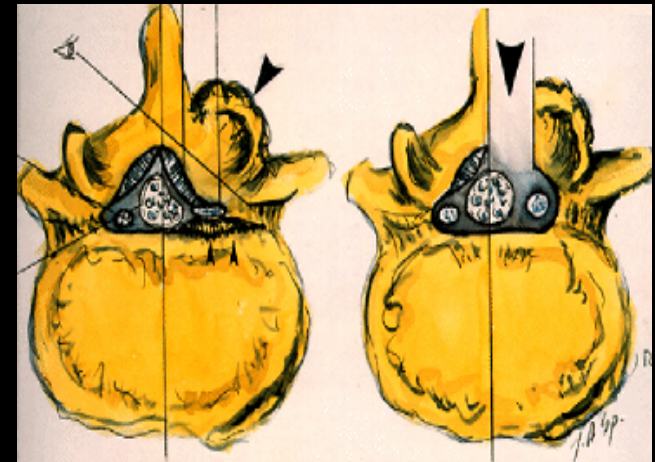
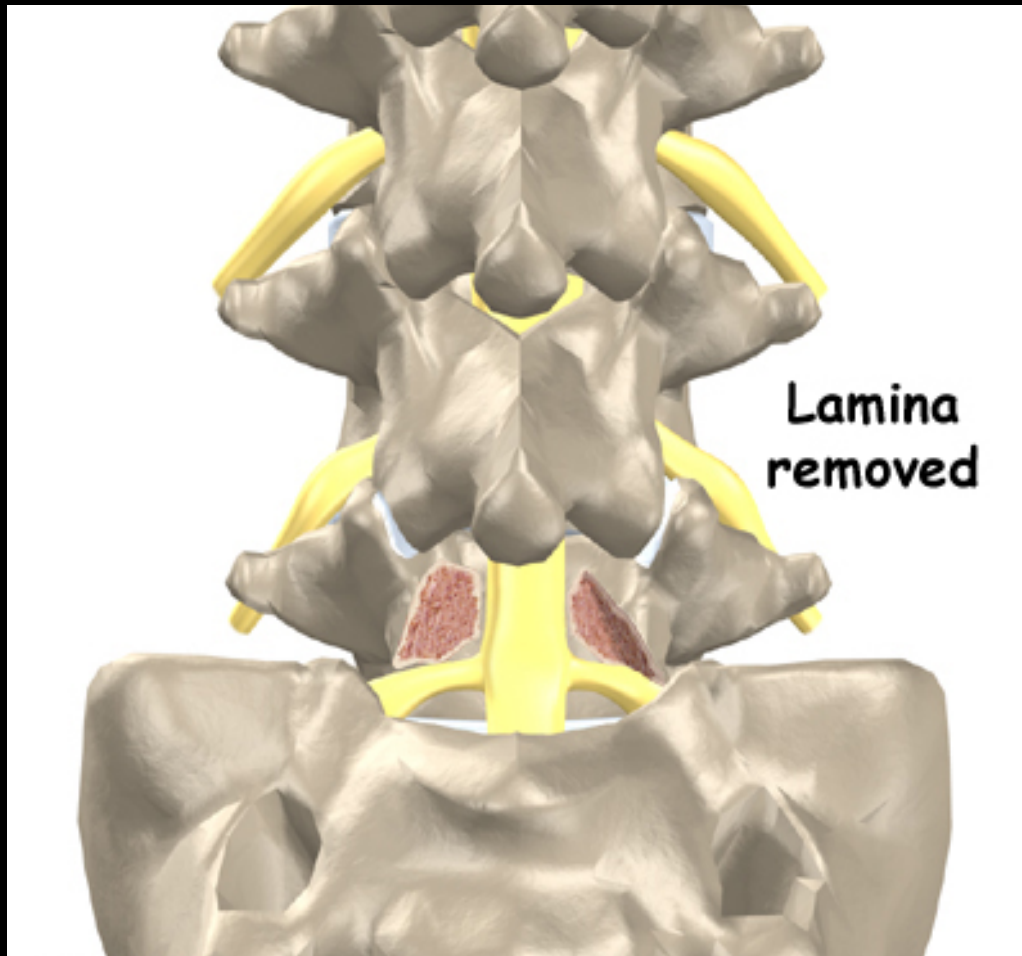


- Klassisk diskektomi
- Mikroskop v/ recidiv
- Evt. dese



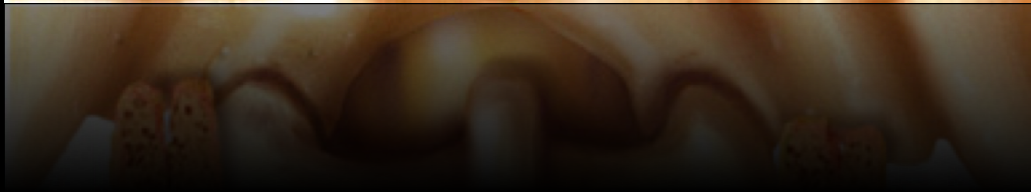
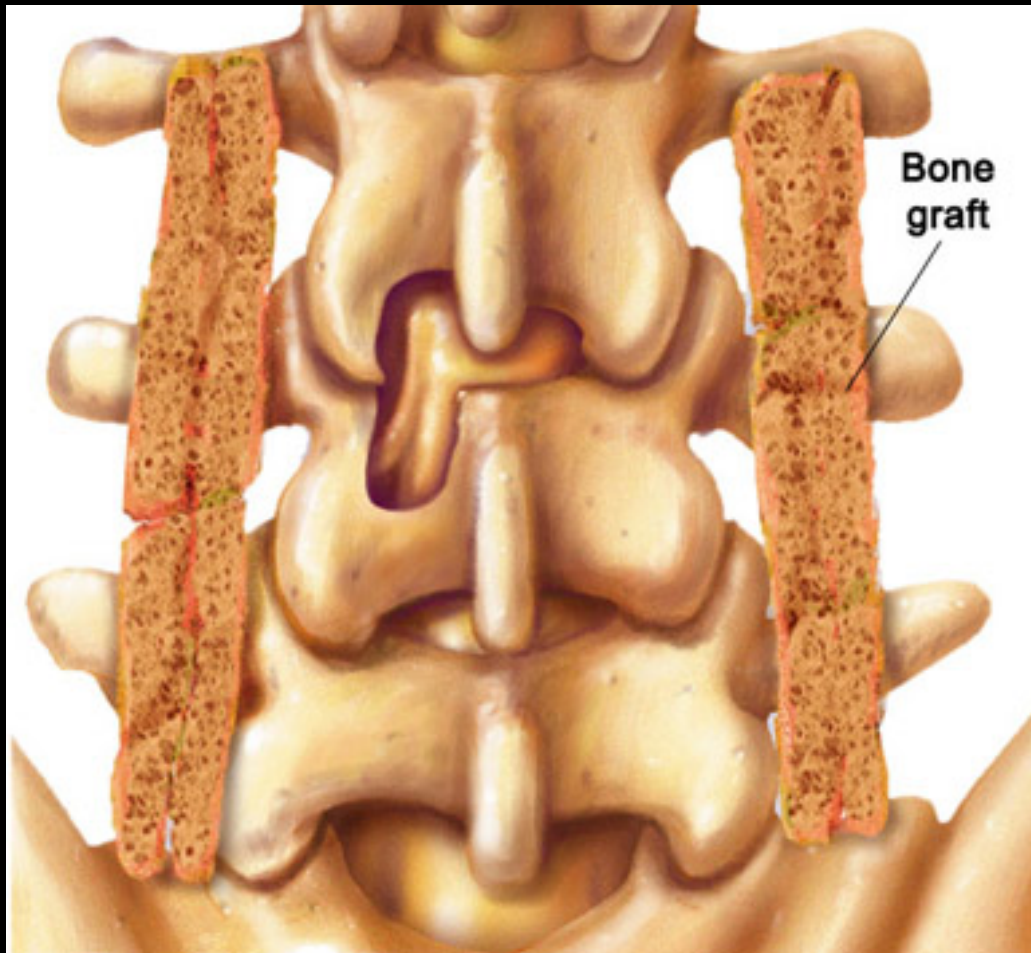
# Laminektomi eller rodfrilægning

Facetleddet bevarer – 4% udvikler instabilitet





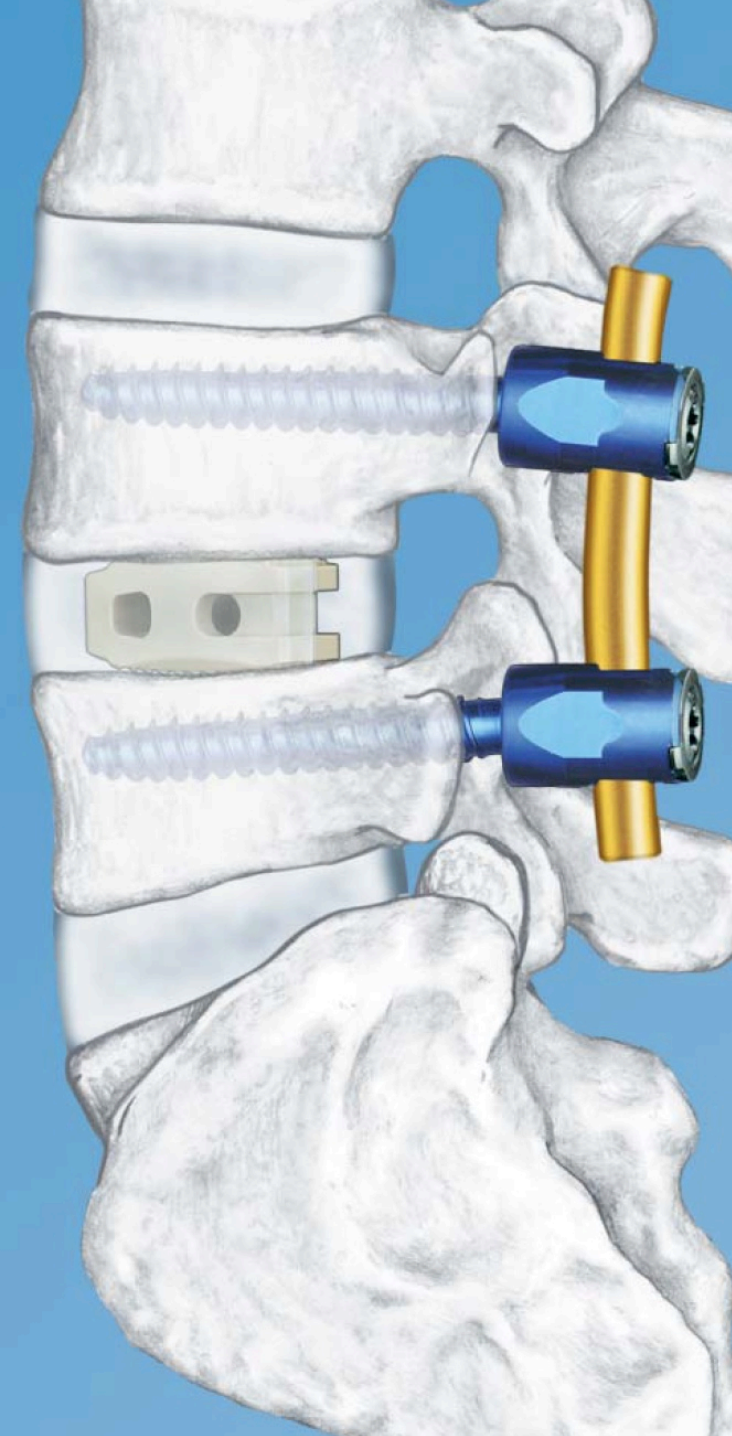
# Ikke-instrumenteret dese



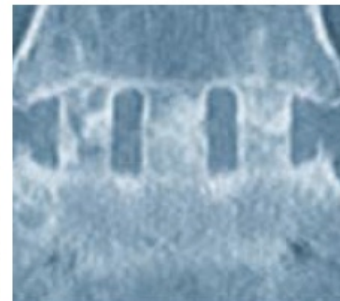
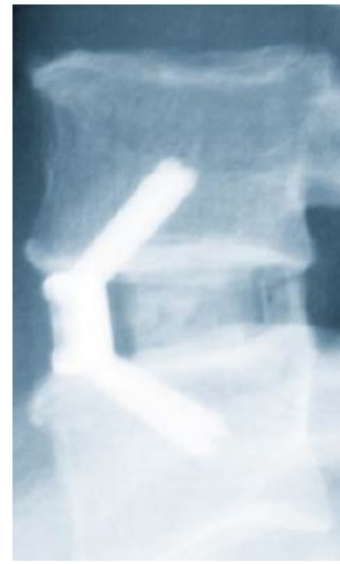
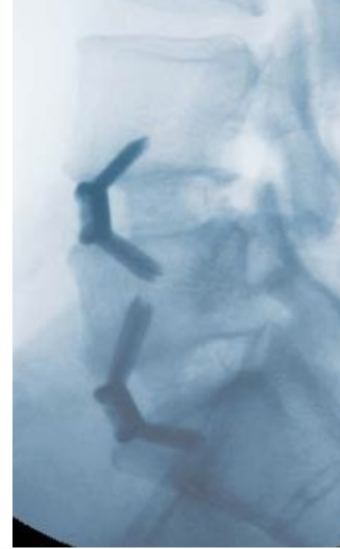
# L4/L5-Dese

Transforaminal Lumbar Interbody Fusion

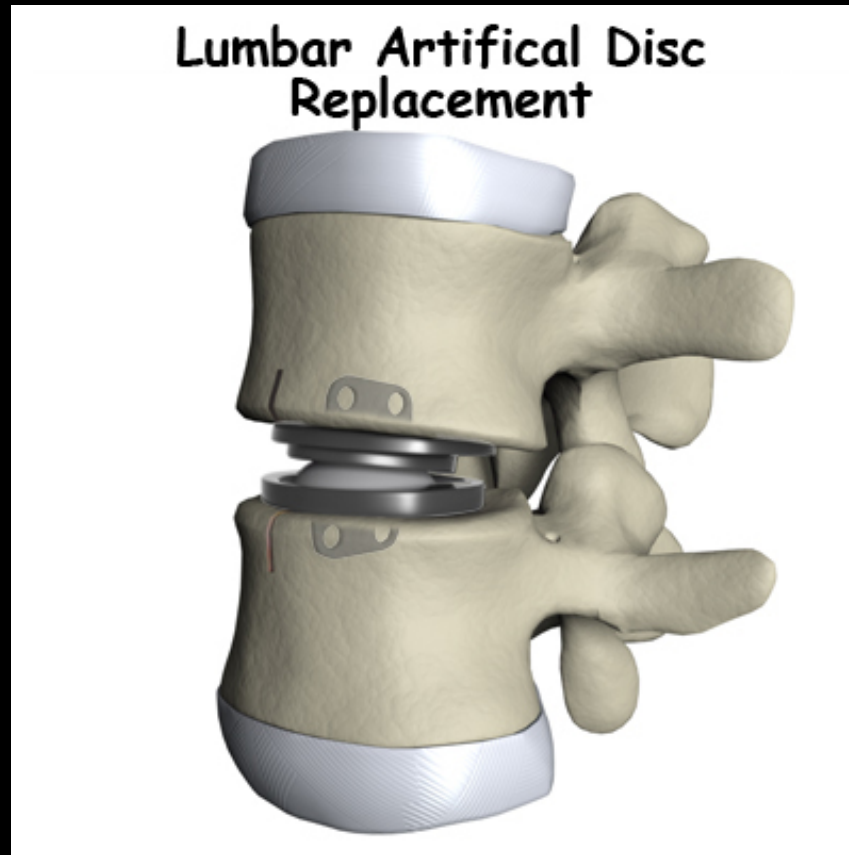
- Pedikelskruer
- Stave
- Diskectomi
- TLIF-Spacer (Opal)
- Knoglestykker evt. transplantat

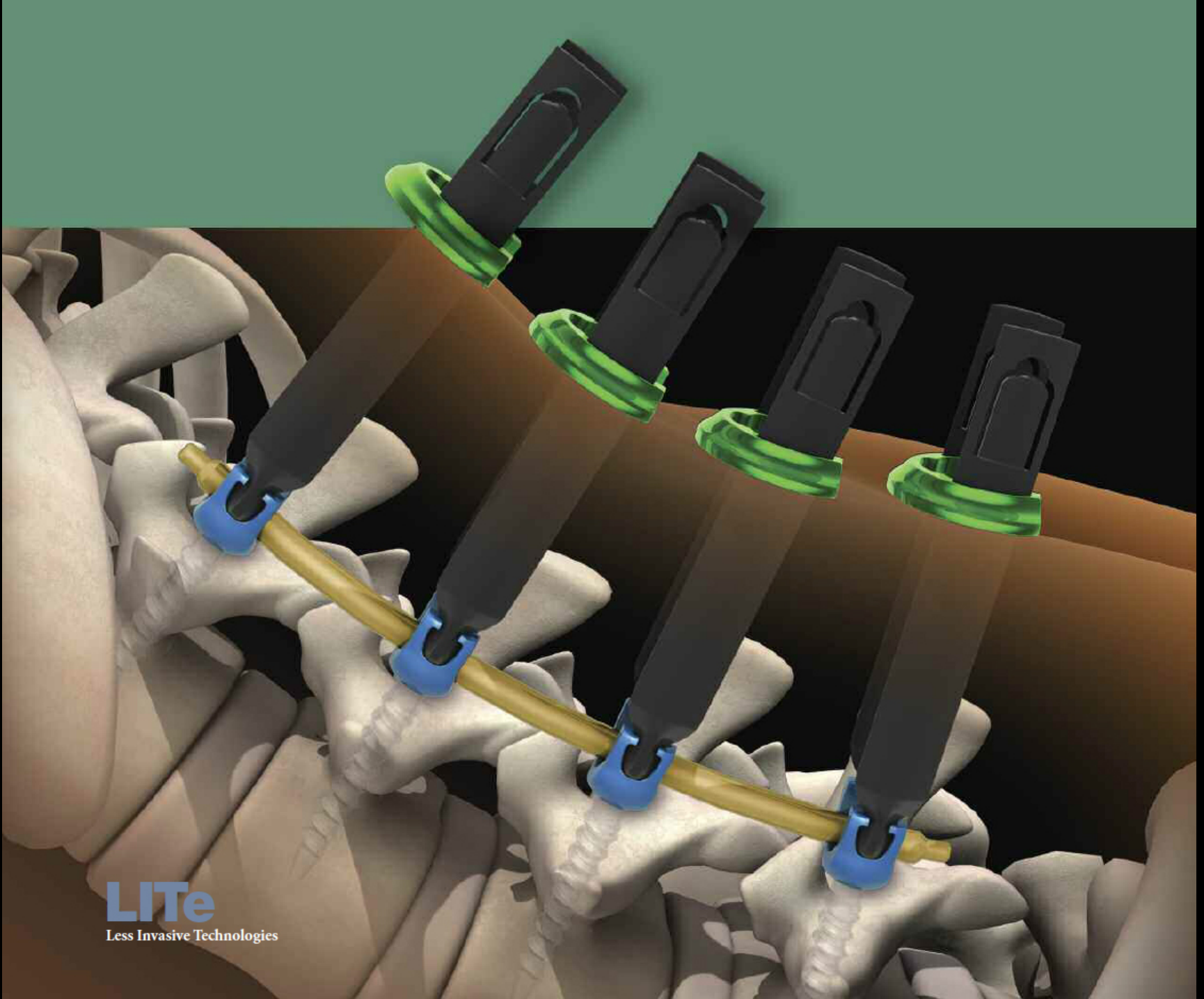


# ALIF



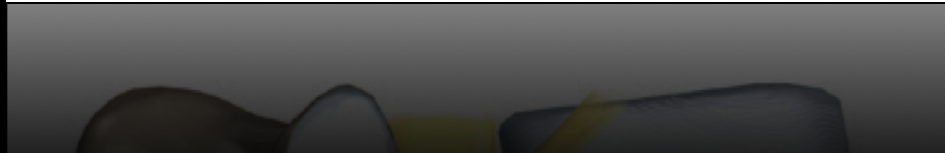
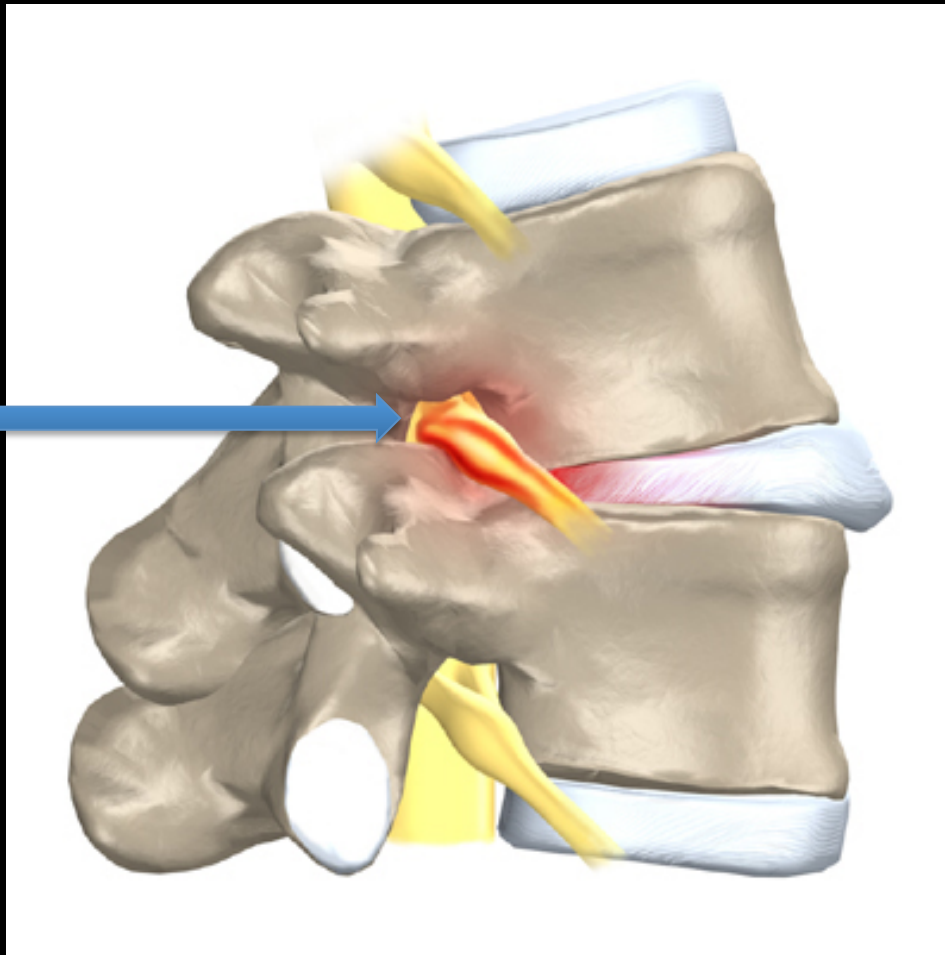
# Diskusprothese





**LITe**  
Less Invasive Technologies

# Blokade af nerverod eller facetled





# Effekten af operation

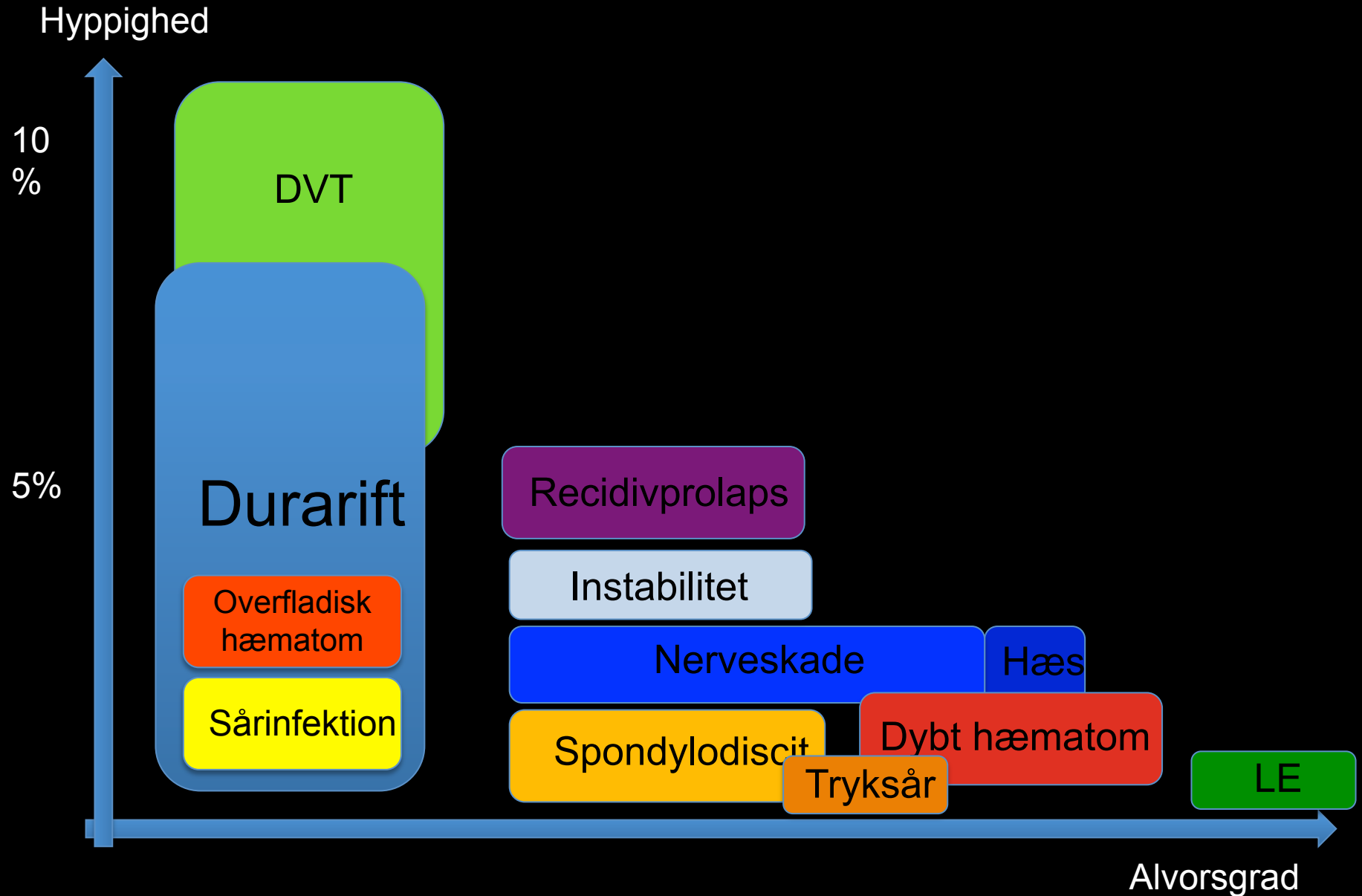
A photograph of a surgical team in an operating room. Five surgeons are visible, all wearing blue scrubs, blue bouffant caps, and white surgical masks. They are gathered around a patient on an operating table, illuminated by bright overhead surgical lights. The background shows typical operating room equipment and a clock on the wall.

- Diskusprolaps: 8/10
- Stivgørende operation i lænden: 2/3




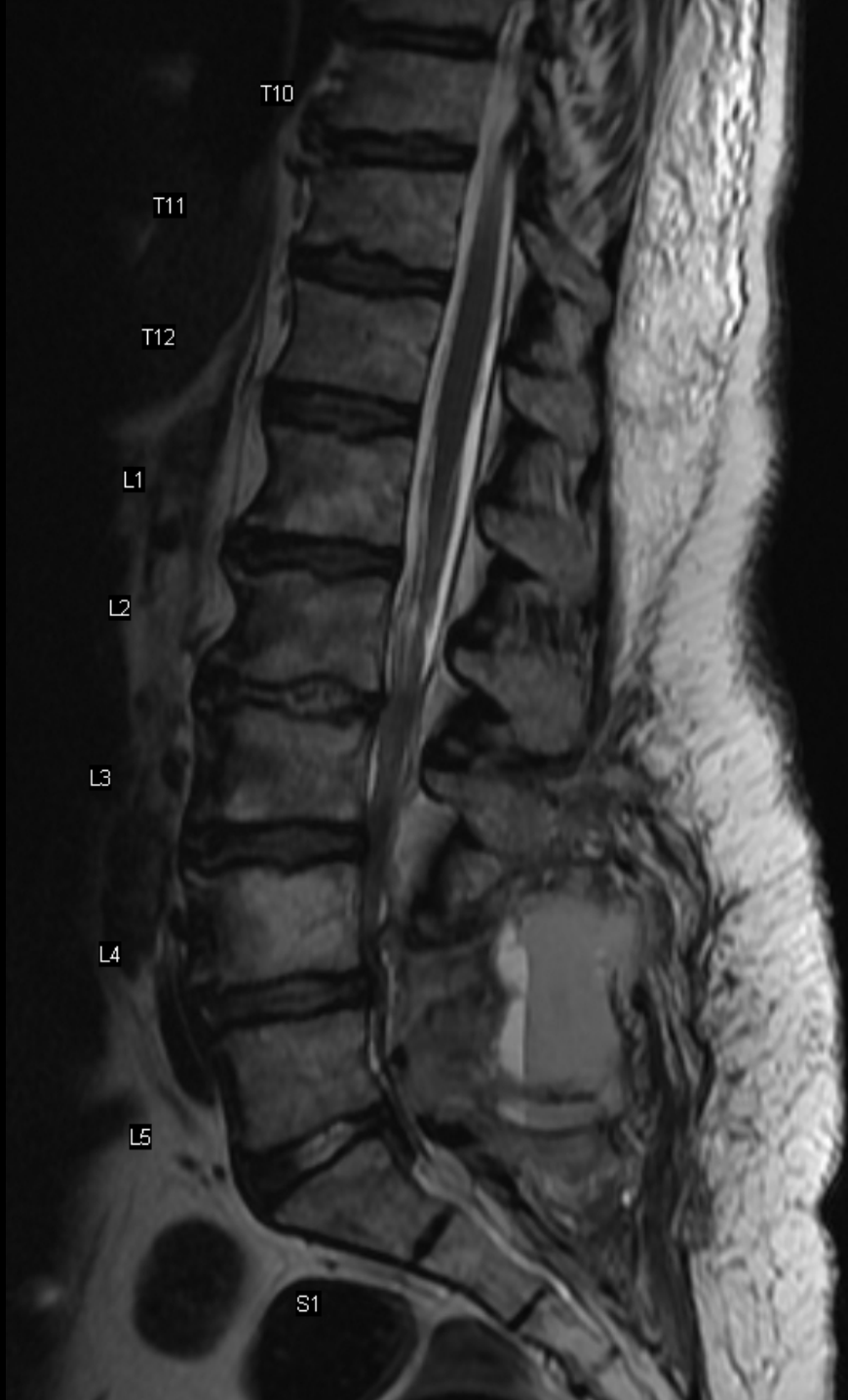
**Komplikationen**

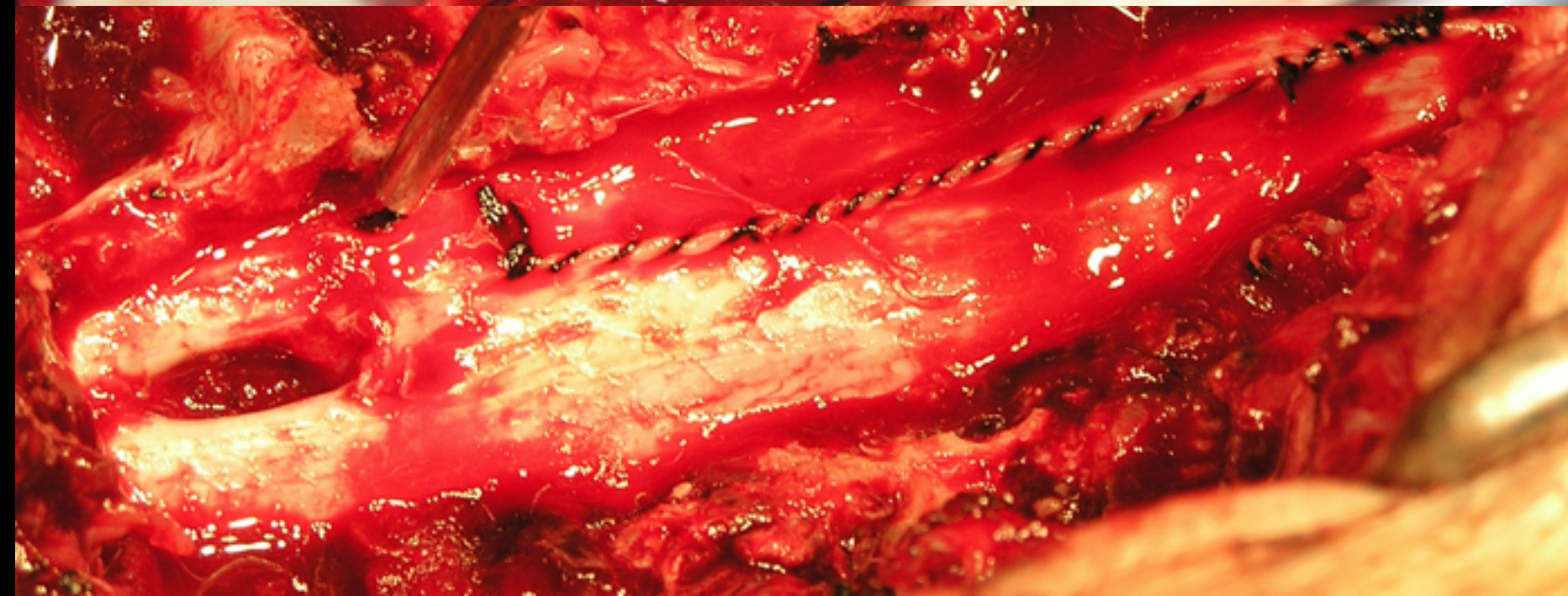
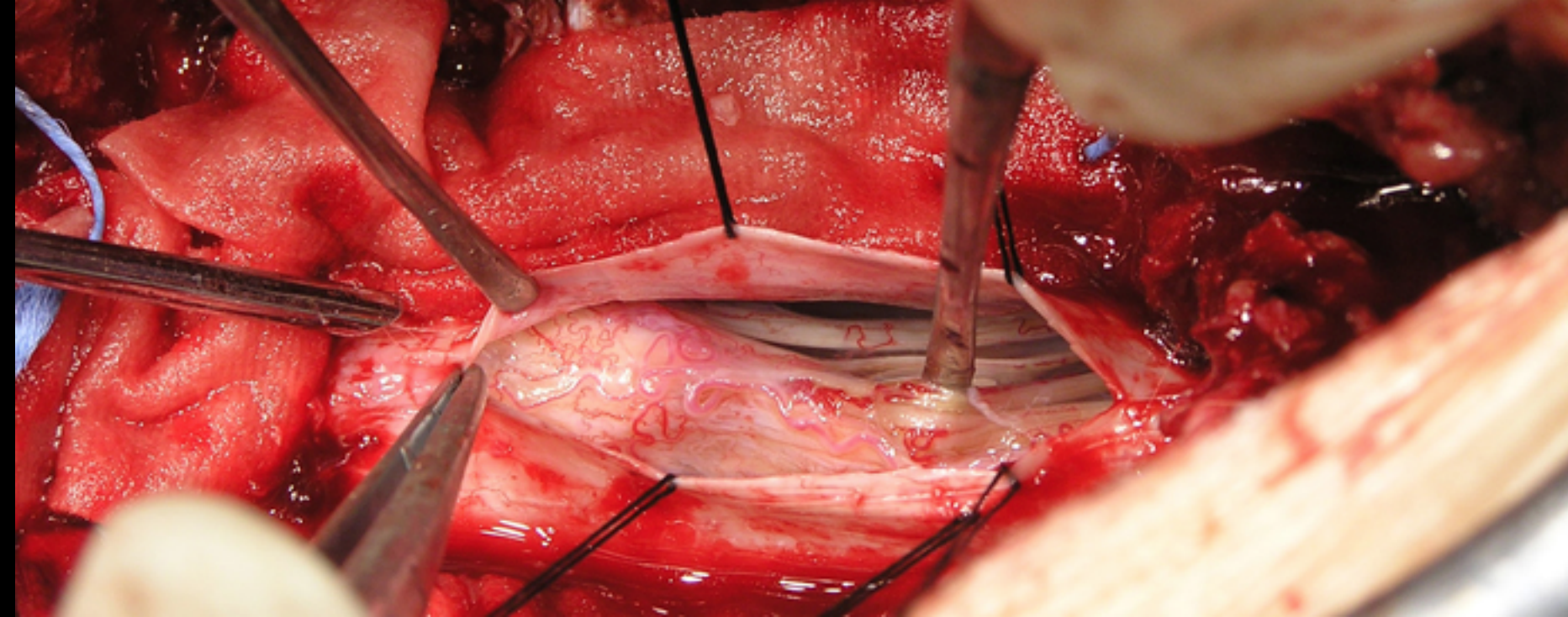
# Komplikationer

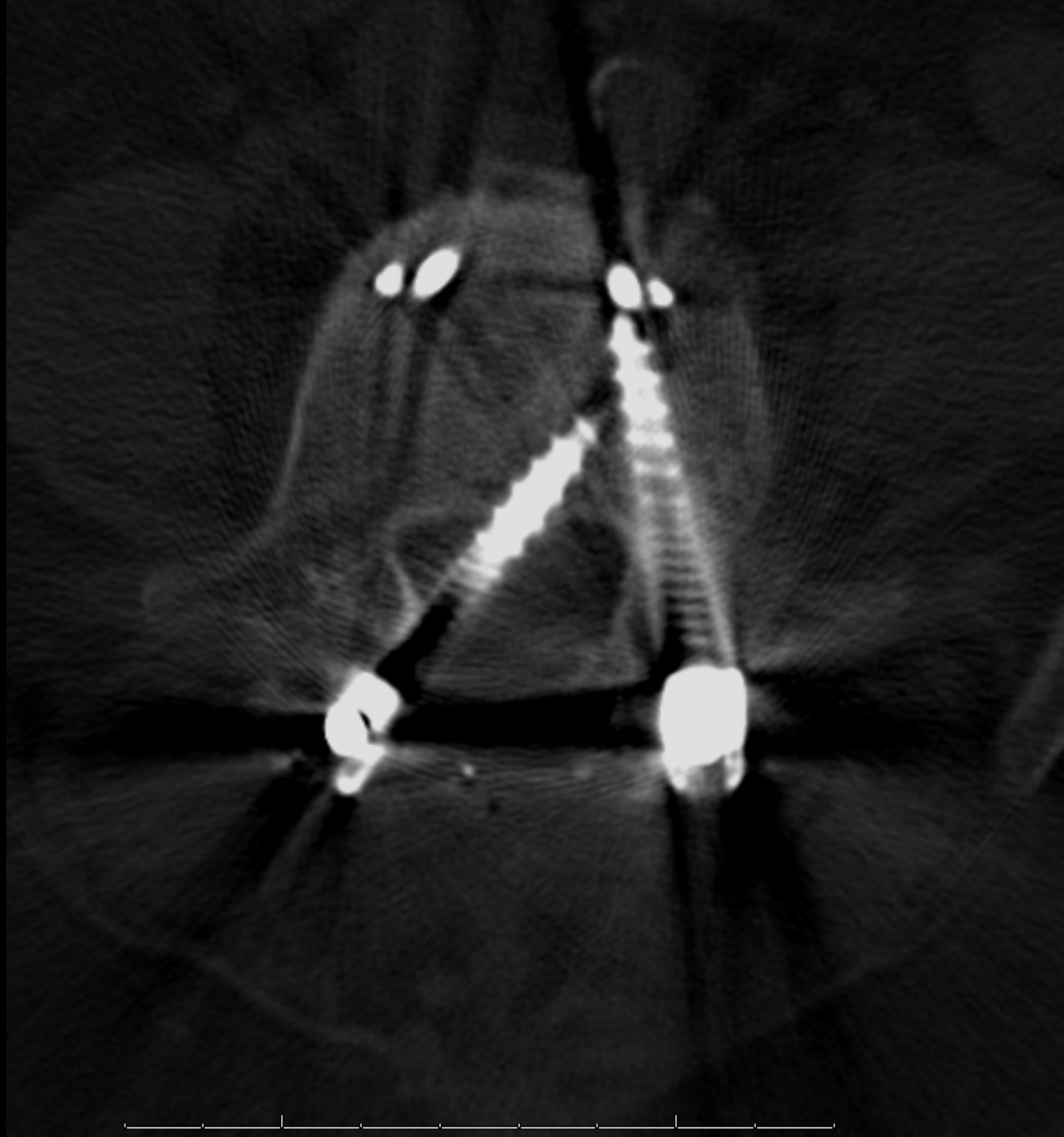


# Komplikationer afhænger af indgrebstypen

Indgrebstype	Anterior adgang	Posterior adgang (lam.)
Cervikalt niveau:	Vejrtrækningsproblemer (ACIF)	Tværsnitssyndromet
Lumbalt niveau:	Shock (ALIF)	Cauda Equina Syndromet 







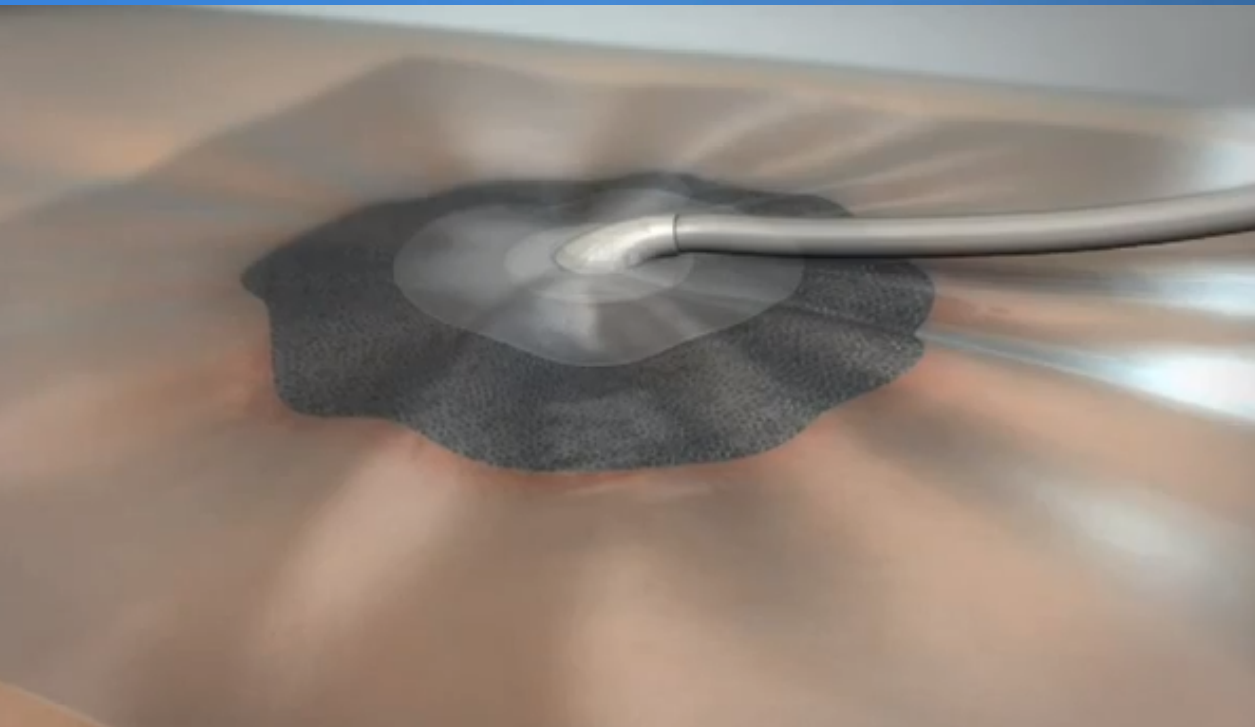
# Spondylodiscitis



- Primær bakterieinfektion svt. diskus, sekundær indvoldering af endeplader. Ofte hæmatogen spredning eller postoperativ infektion
- Tilstanden er desværre underdiagnosticeret. Mange pt. udredes/behandles på medicinske afdelinger. Dødeligheden er op til 25% hos ældre
- Staphylococcus aureus (>50%)
- Risikofaktorer: Immunsuppression, Alderdom, Diabetes, Narkoman, Ikke-etniske danskere (TB)
- Lændesmerter evt. med udstråling til ben, feber, væggtab, bevægelsesindskrænkning. Diagnosen stilles ofte først flere måneder efter symptomdebut
- Forhøjet CRP og SR, evt leukocytose



**vac.<sup>®</sup>therapy**  
KCI Healing by design





- Evt. asymptomatisk

- Smerter i benet

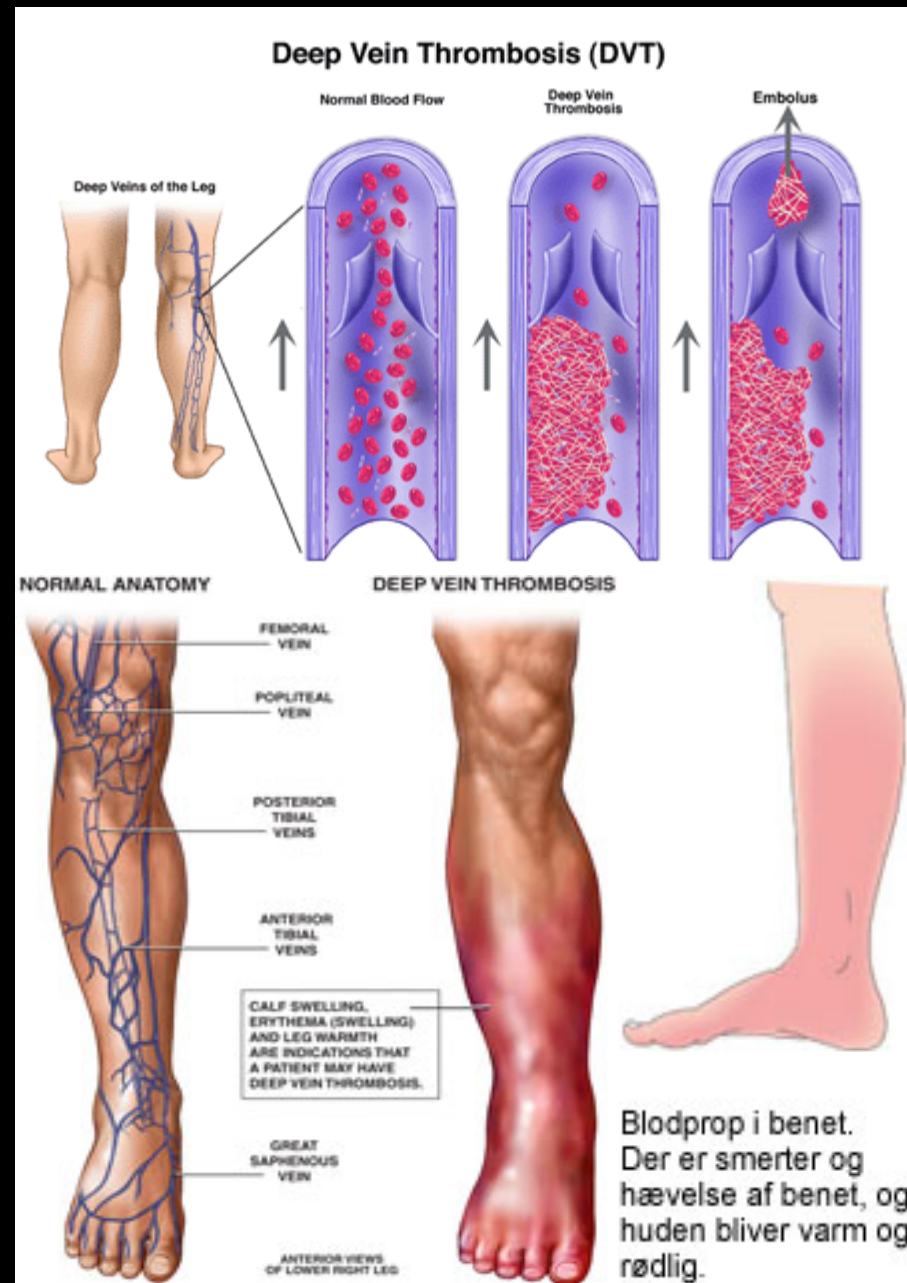
- Rødme

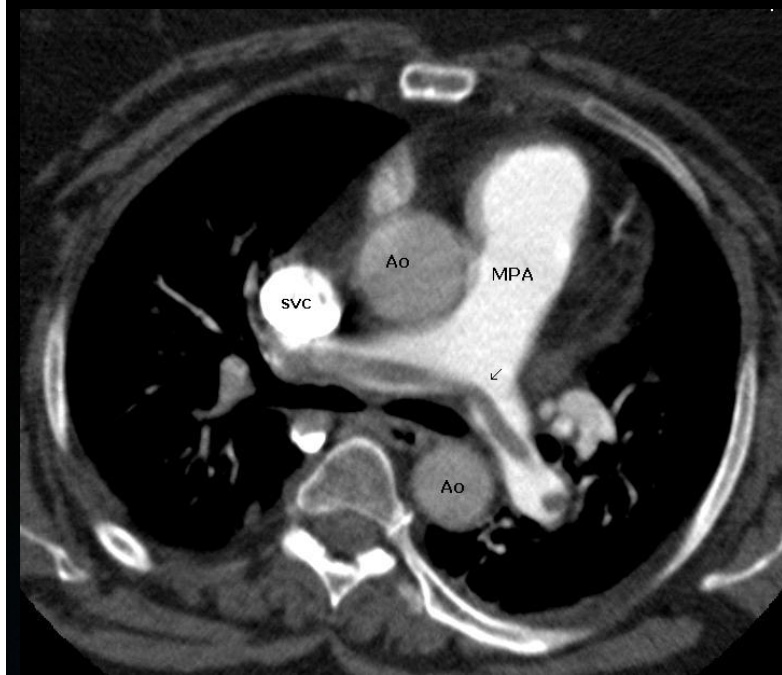
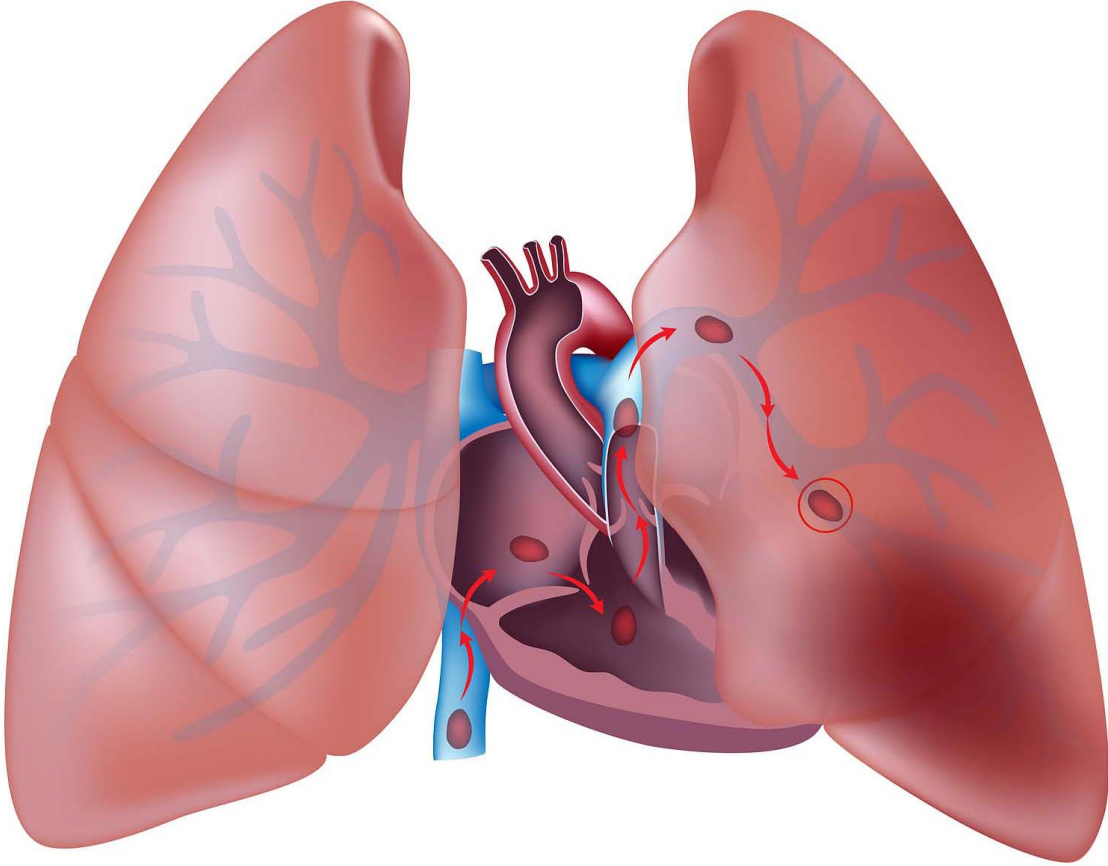
- Hævelse

- Feber

- D-dimer

- Ultralyd





- (Lægømhed)
- Åndenød
- Svimmelhed
- Hoste evt. blodig
- Brystsmerter
- Synkope
- Takykardi
- Svedtendens
- Tidligere DVT
- Hjertesvigt
- Overvægt
- Graviditet
- Sengeleje
- P-piller
- Cancer
- Arvelige blodsygdomme



CASES

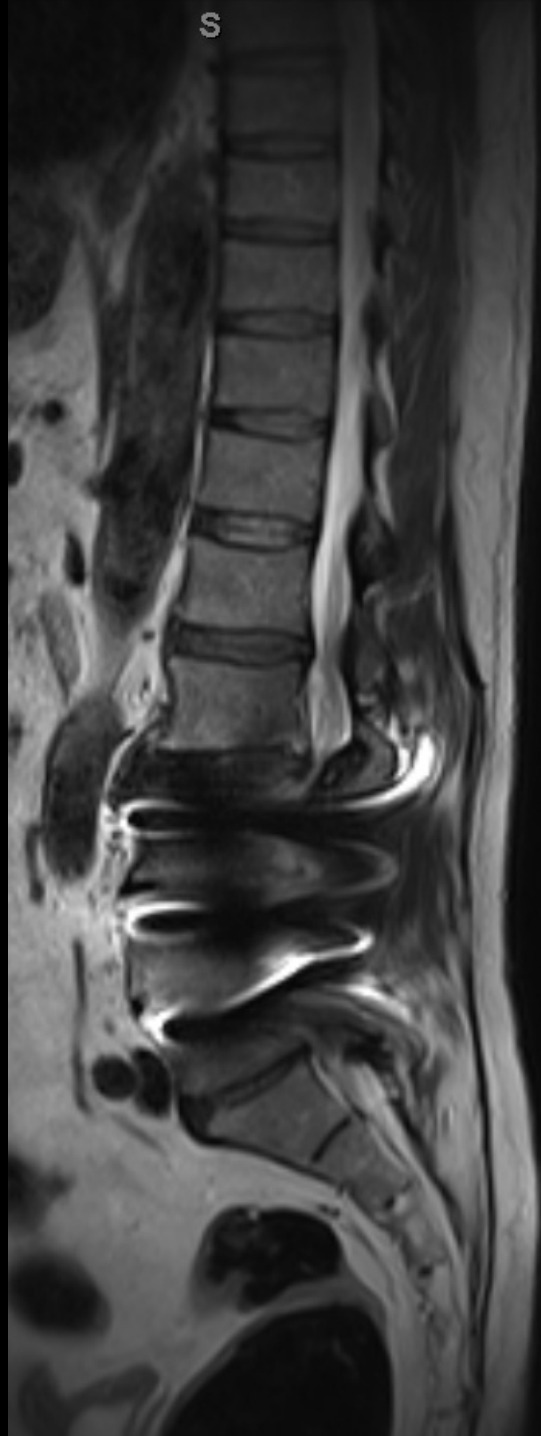
# CASE

- 70-årig mand (tidligere skibsmontør)
- Lumbal dese L3-L5 i 1999
- Rygsmerter med udstråling til venstre ben
- Positiv strakt-ben-test
- Blæreskanning: 800 ml
- Svært nedsat perianal sensibilitet
- Ophørt voluntær sfinkterkontraktion
- Rimelig sfinktertonus
- Tidspunkt da du ser pt: 23:30

**Diagnose?**  
**Udredning?**

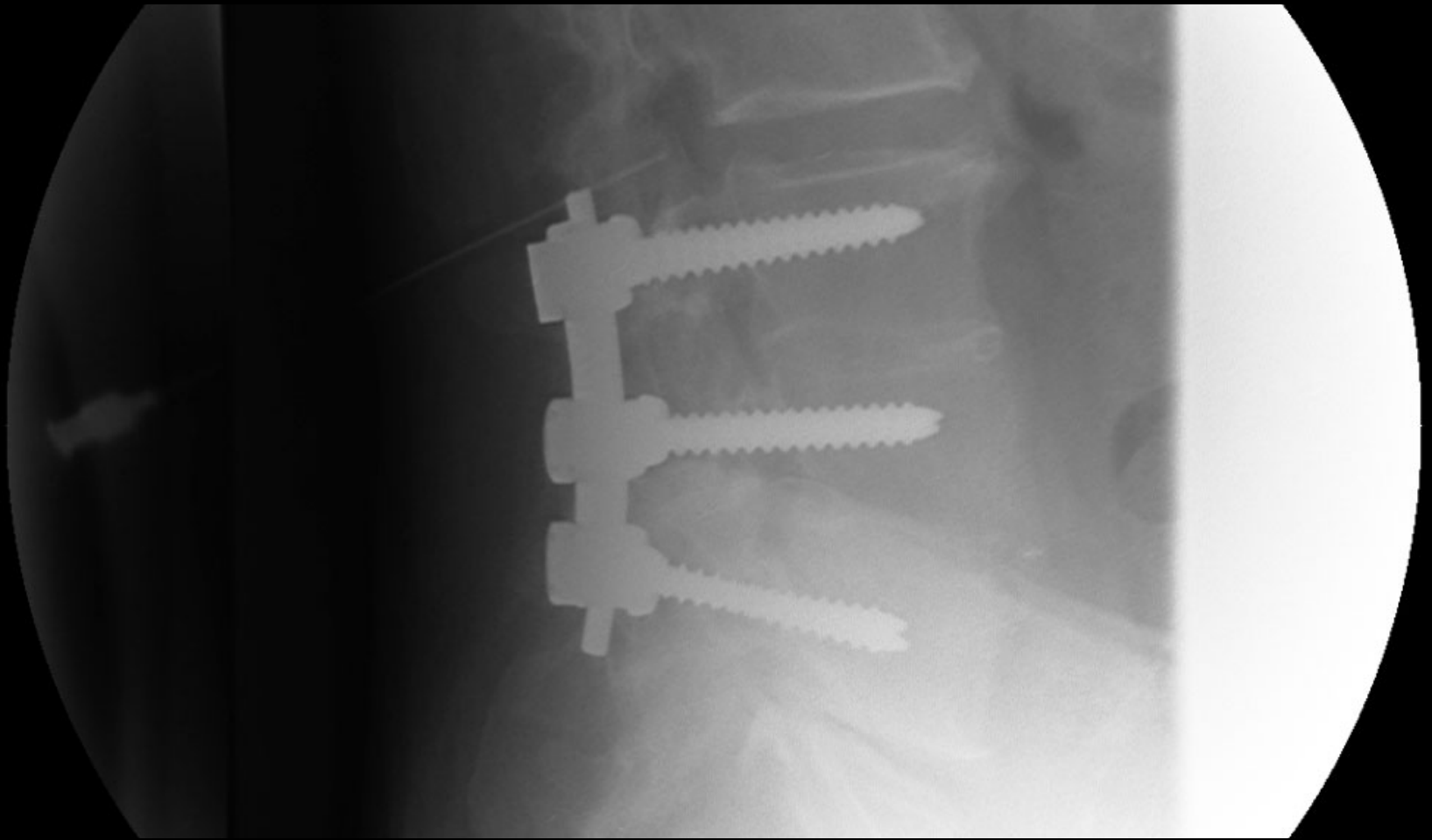
# CT-skanning





# MR-skanning

# Myelografi



# Peroperativ myelografi

