

Spondylolisthesis

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Definition

- ▶ Spondyl = ryg
 - ▶ Olisthesis = afglidning
 - ▶ Arcus = bue
 - ▶ Lysis = gå i opløsning
- græsk
- ▶ Arcolysis = pseudoarthrose i fraktur i pars interarticularis, ikke i bueroden
 - ▶ Spondylolisthesis = afglidning af en ryghvirvel på den underliggende

Klassifikation Wiltse

- ▶ **Dysplastisk, type 1, kongenit**
- ▶ **Isthmisk, spondylolytisk, type 2, erhvervet**
- ▶ **Degenerativ, erhvervet**
- ▶ Traumatisk (frisk fraktur)
- ▶ Patologisk
- ▶ Iatrogen

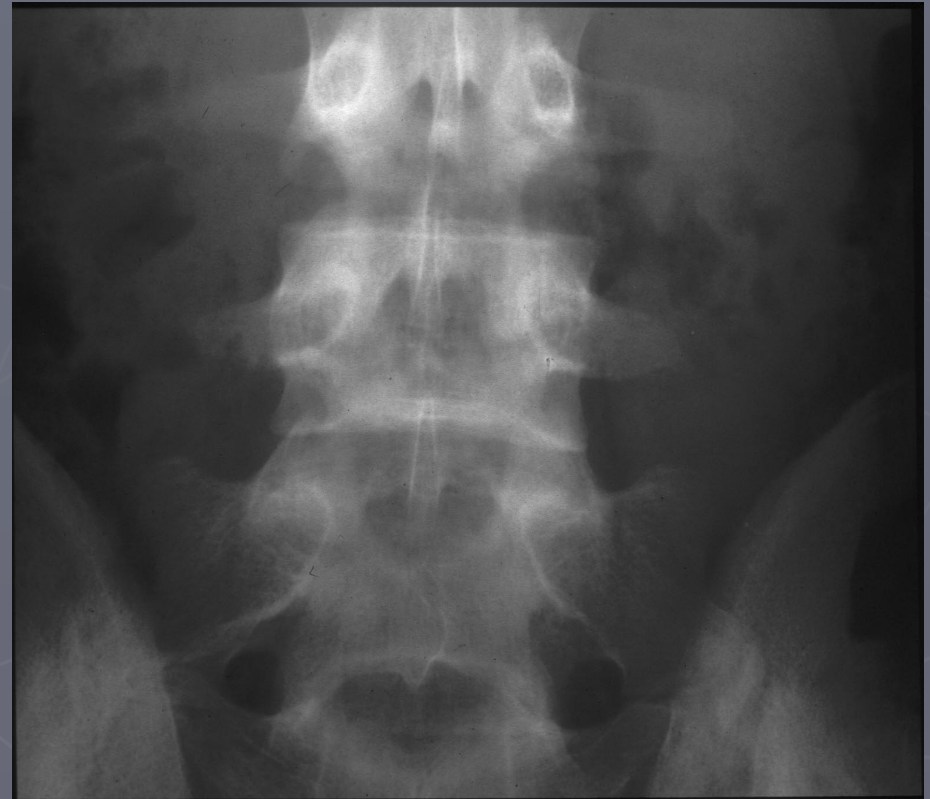
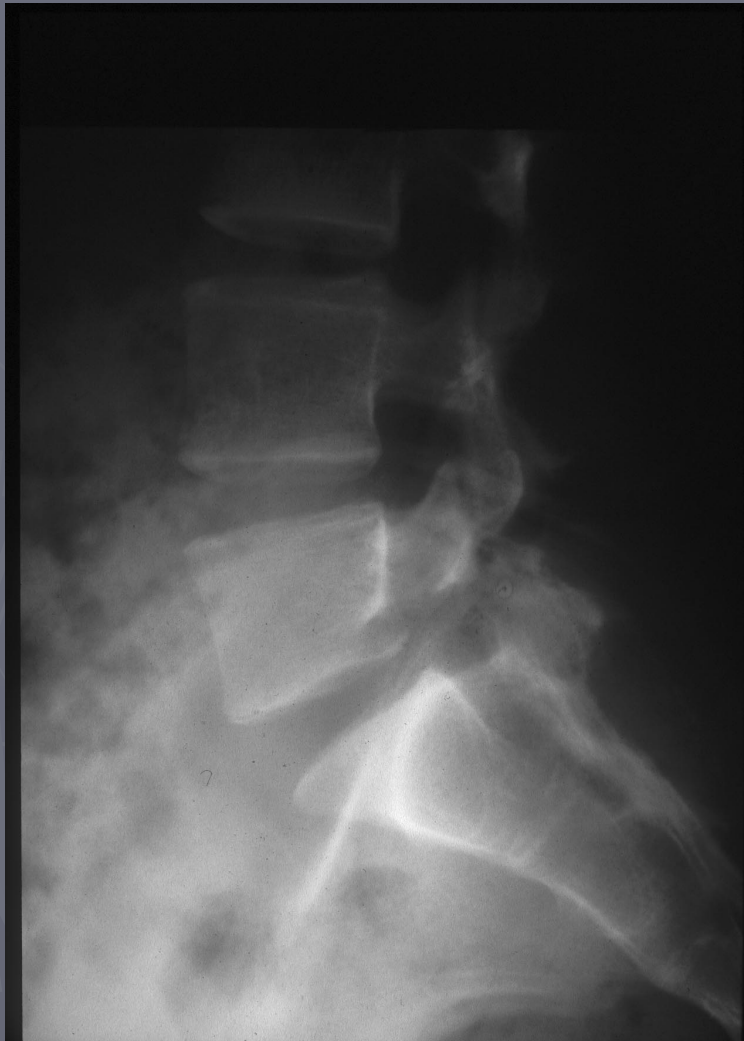
Klassifikation Meyerding 1932

- ▶ I 0-25%
- ▶ II 25-50%
- ▶ III 50-75%
- ▶ IV 75-100%

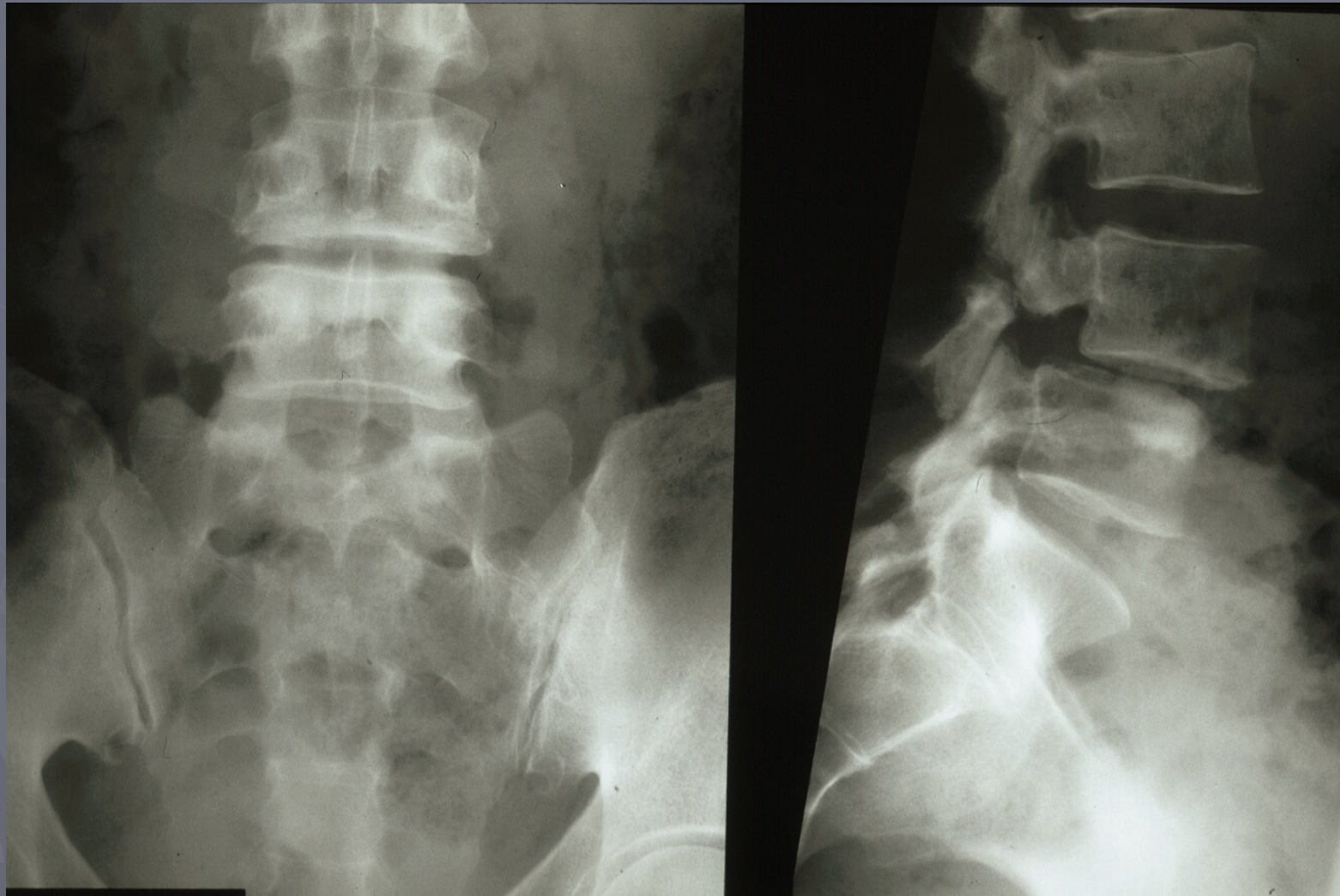
- ▶ O 0 %
- ▶ V Spondyloptose



Meyerding 0



Meyerding I



Meyerding II-III



Meyerding IV

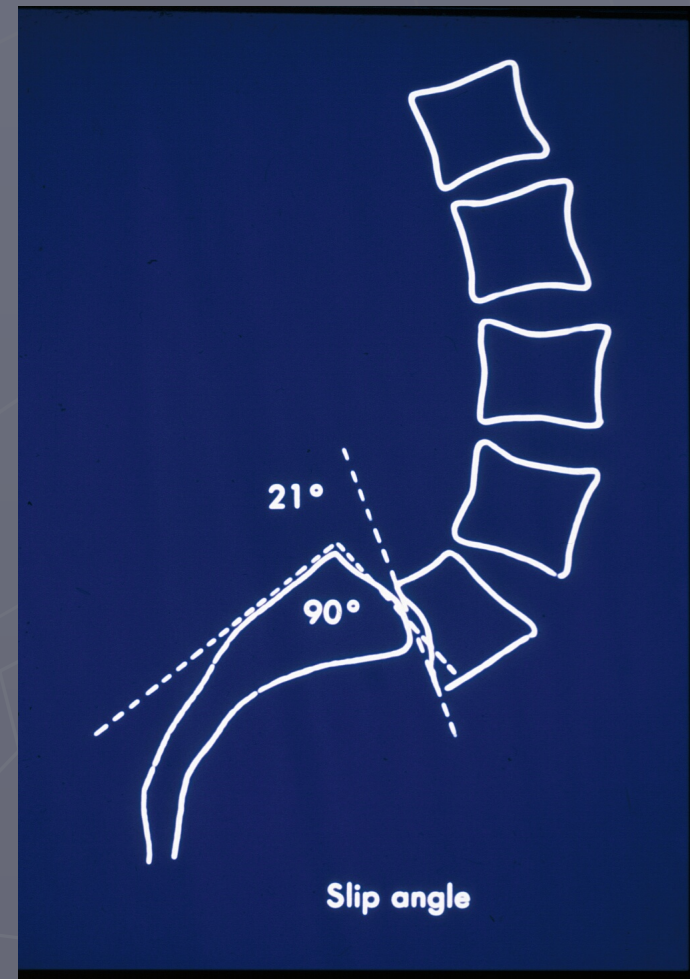


Meyerding V



"Slip angle"

- ▶ Lokal kyfose = "slip angle"
- ▶ Kompensatorisk hyperlordose i thorax og lænden



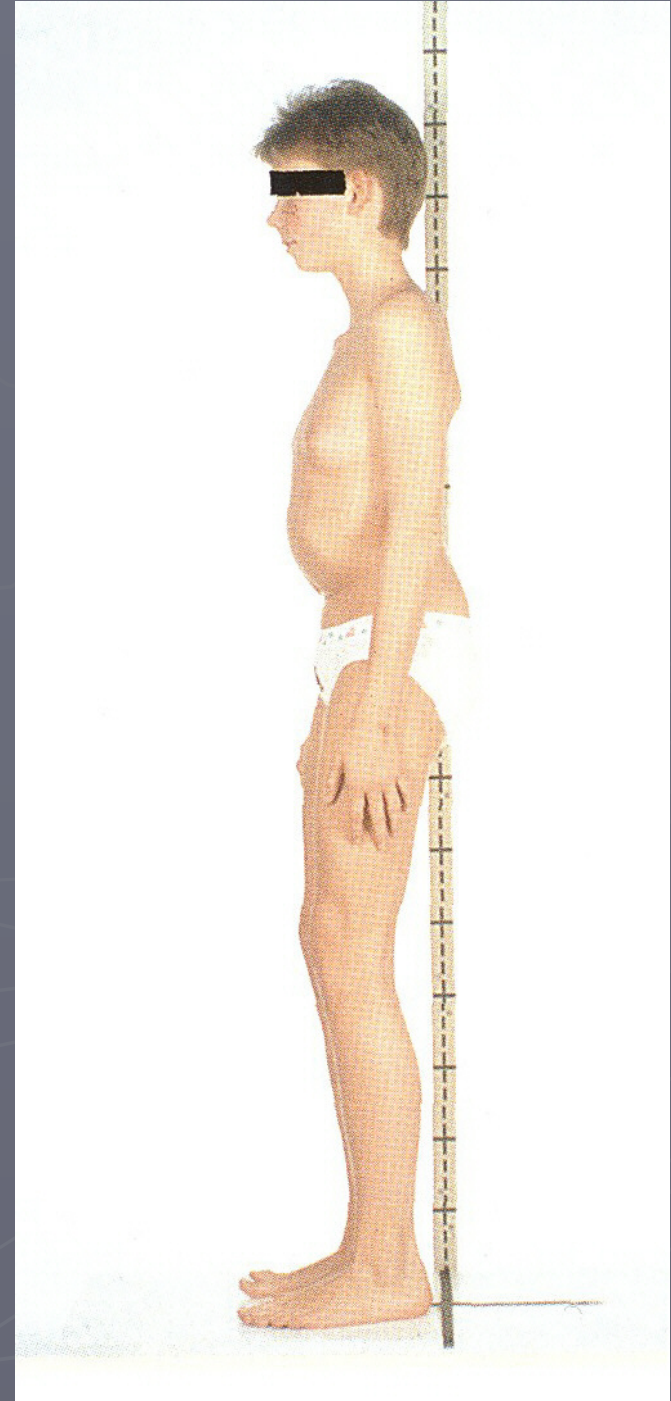
Truncusdeformitet

- ▶ Kort plump truncus
- ▶ Dyb flankefure
- ▶ Fremstående brystparti
- ▶ Kort afstand mellem umbilicus og symfyssen
- ▶ Prominerende mons pubis

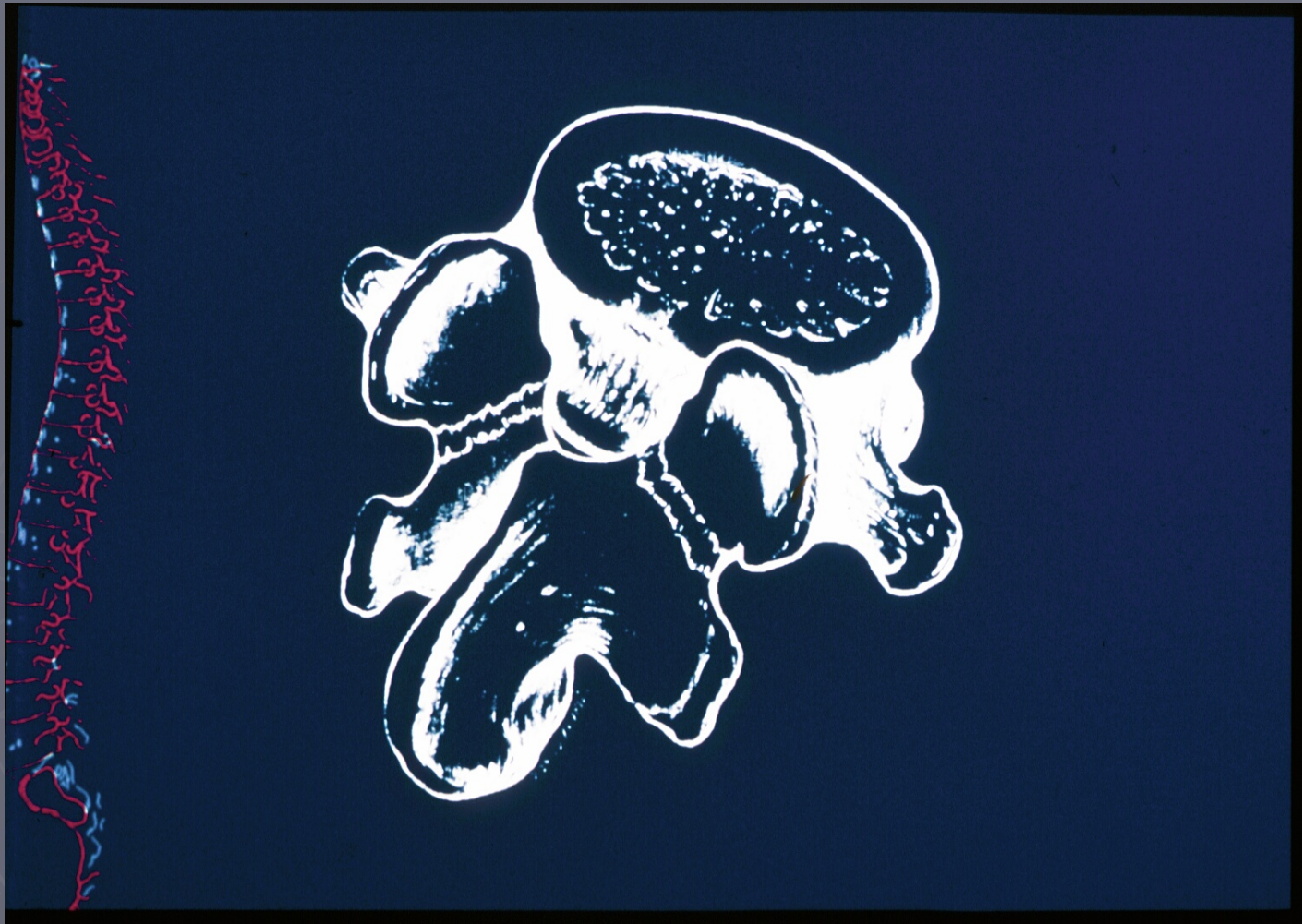


Truncusdeformitet

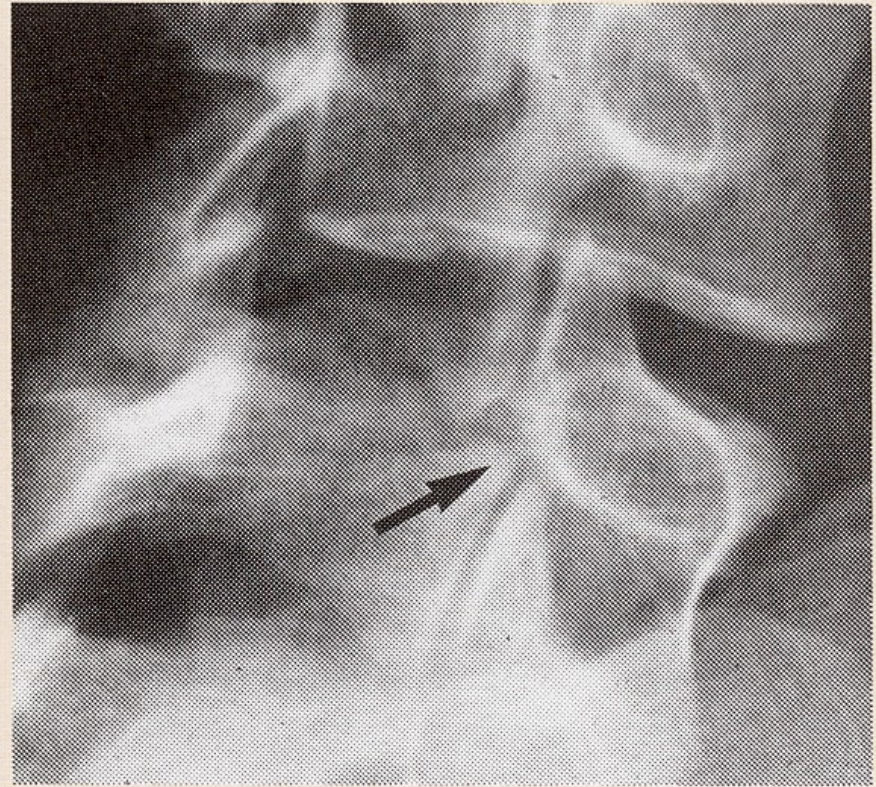
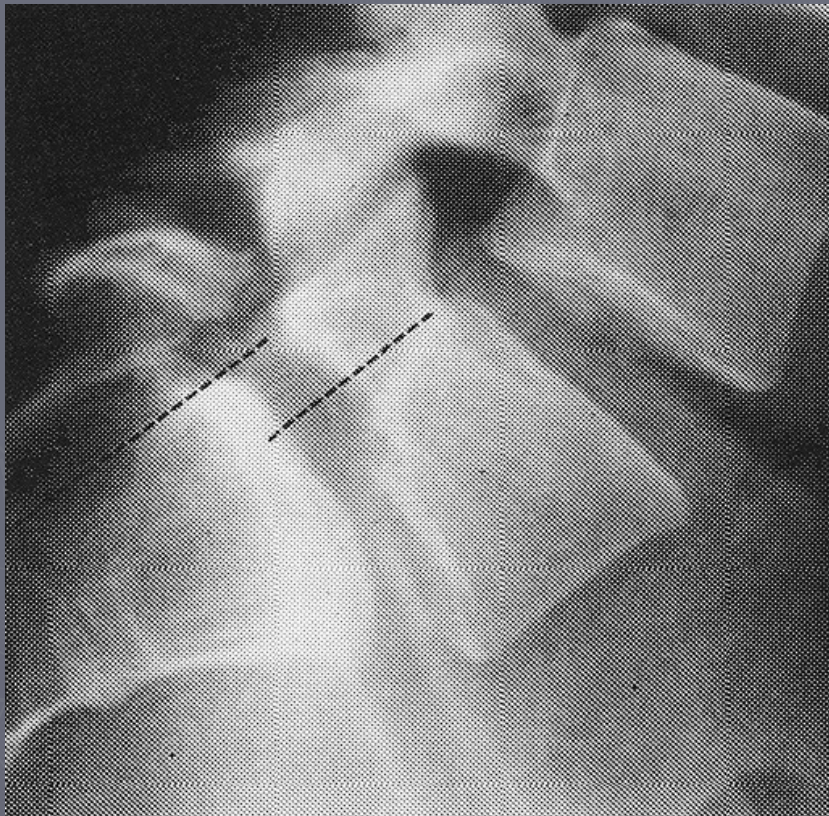
- ▶ Lumbosakral kyfose
- ▶ Thorakolumbal hyperlordose
- ▶ Trin i lænden
- ▶ Vertikalt os sacrum – fladt sædeparti
- ▶ Bøjede knæ



Isthmisk Type 1



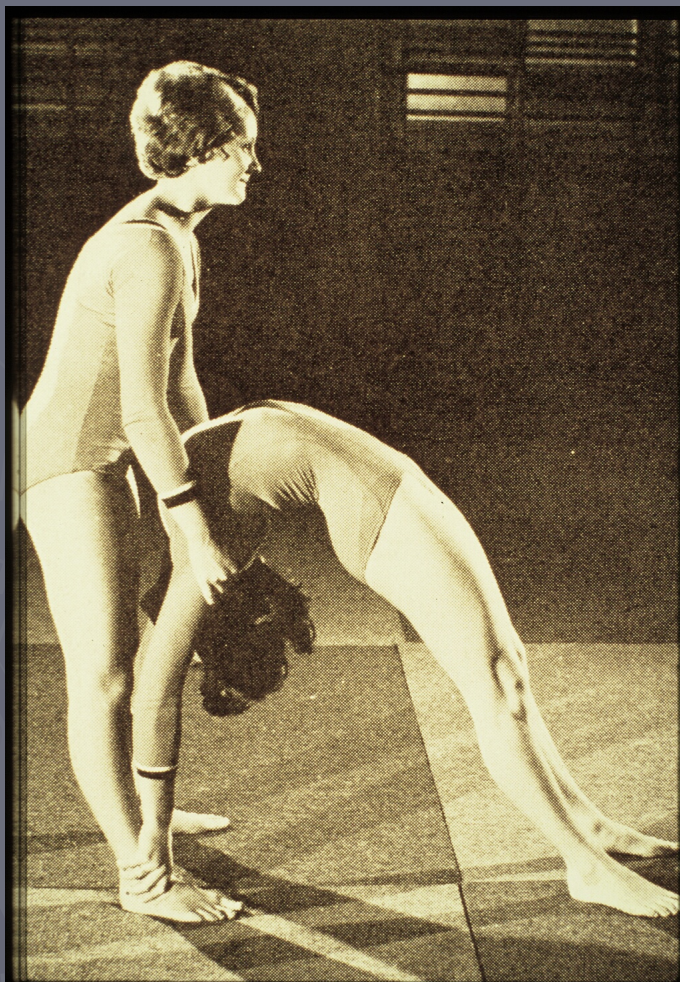
"Hund med halsbånd"



Ætiologi

- ▶ Træthedsbrud i pars interarticularis
- ▶ Genetisk, ikke medfødt
- ▶ Findes kun hos mennesker, ikke hos små børn
- ▶ Normalt ikke traumatisk
- ▶ Kan hos voksne opstå ved traume
- ▶ Visse sportstyper
 - Hyperextension
 - Vægtløftning
- ▶ Facetled normale

Risikosport



Dysplastisk Type 2

- ▶ Kongenit
- ▶ Forlænget pars interarticularis
- ▶ Kuppelformet os sacrum
- ▶ Svær lokal kyfose lumbosakralt
- ▶ Ofte retrolisthese ovenover

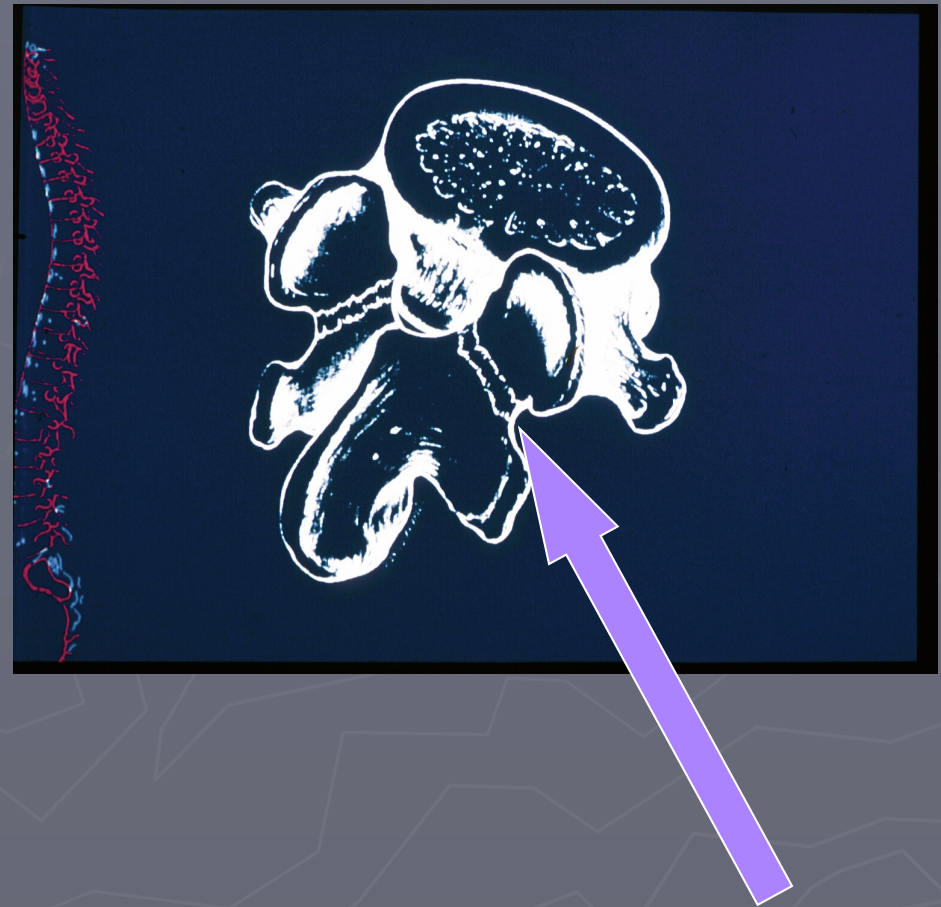


Prævalens

- ▶ Hyppig
- ▶ 5-6%
- ▶ Eet barn i ca hver skoleklasse

Instabilitet, rygsmerter

- ▶ Diskusdegeneration under den afgledne hvirvel
- ▶ Vaklen i fragmentet med lamina, spinosus og inferiore facetled
- ▶ Mobilitet i selve pseudoarthrosen



Neurologi

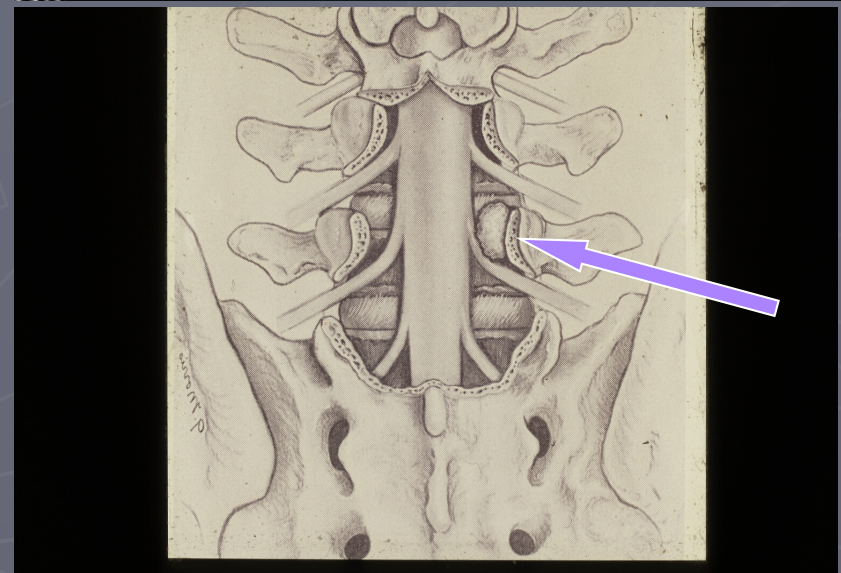
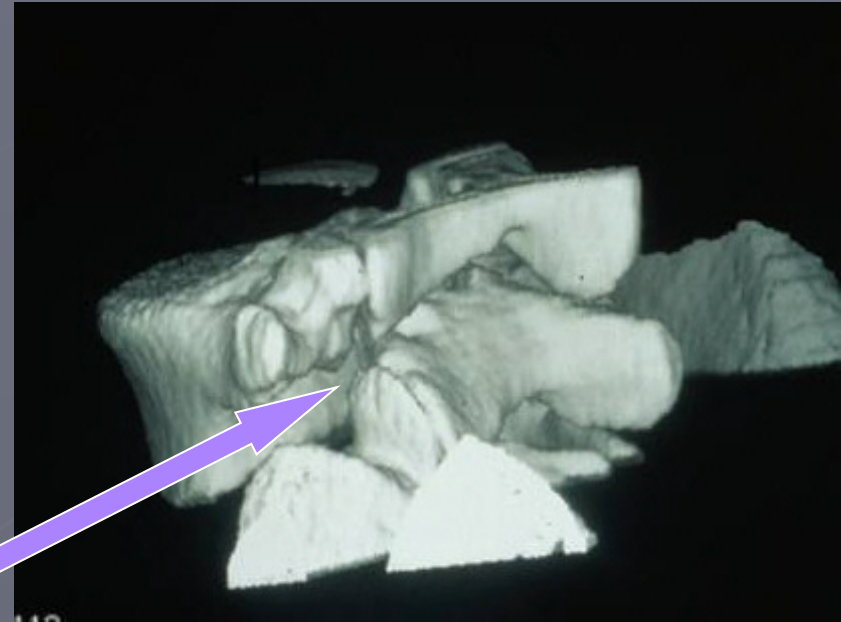
Samme niveau som
afglidningen

Selve afglidningen

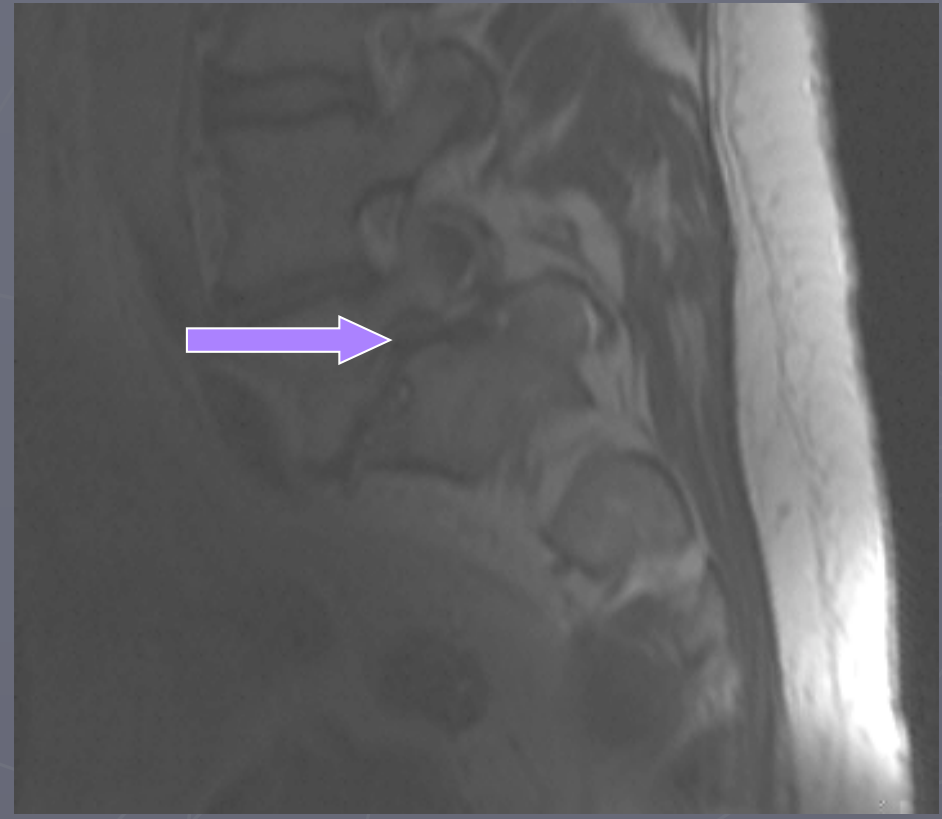
Diskusafsmalning –
lukning af foramen

Pseudoarthrosevæv

Instabilitet



Foraminal stenose



Central stenose

- ▶ L4 Lamina mod
- ▶ S1 corpus



Behandling

- ▶ Konservativ eller operativ
- ▶ +/- instrumentation
- ▶ Neural dekompression
- ▶ "Direct repair"?
- ▶ In situ eller med reduktion
- ▶ Posterior, anterior eller kombineret

Möller Spine 2000

- ▶ Posterolateral spondylodese bedrer smerter og funktionsniveau ved sammenligning med konservativ behandling (fysioterapi, træning)
- ▶ Kliniske billede ligner diskusdegeneration
- ▶ Ingen effekt af pedikelskruer

Patient selektion

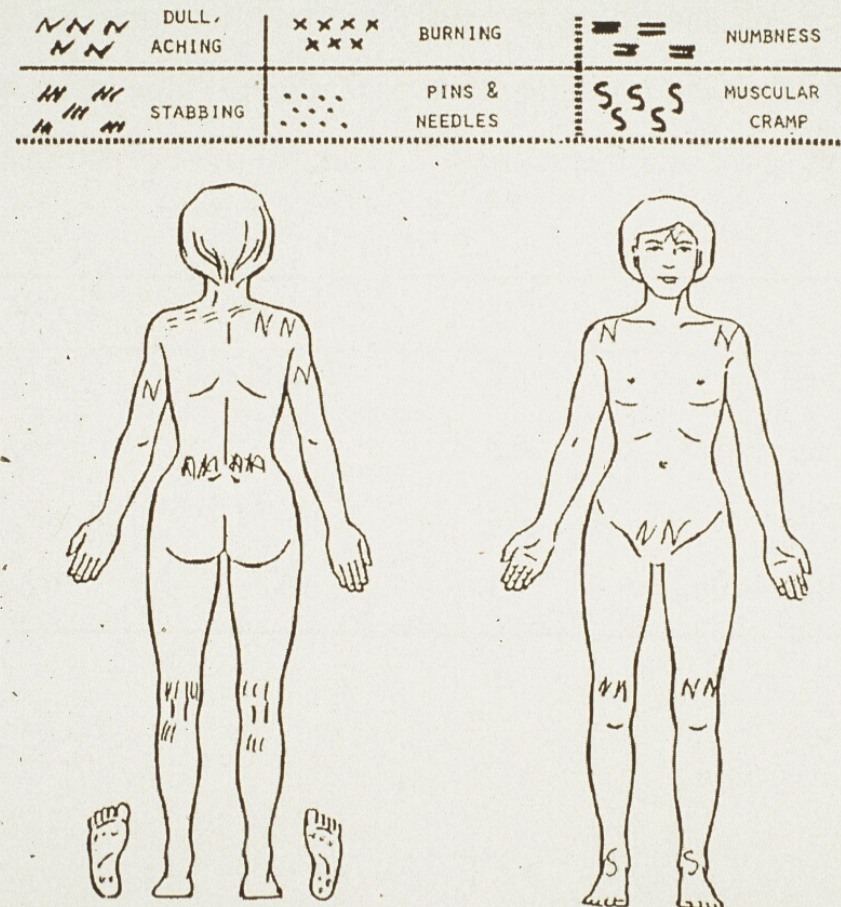
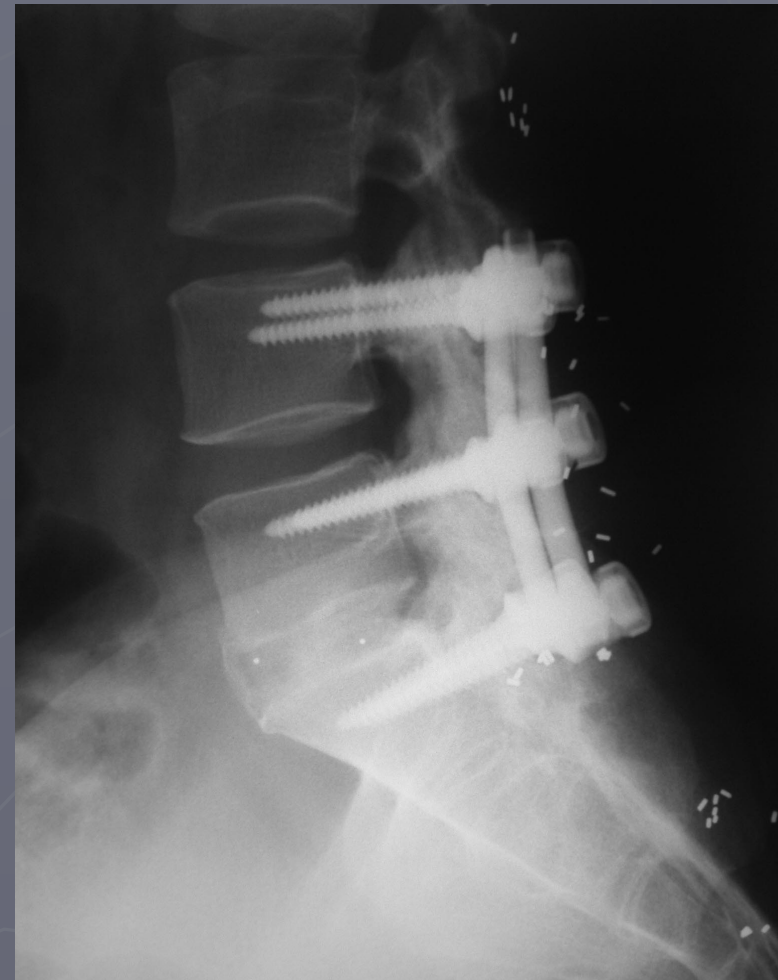


Fig 2. Example of a pain drawing classified as nonorganic.

180 vs 360 grader



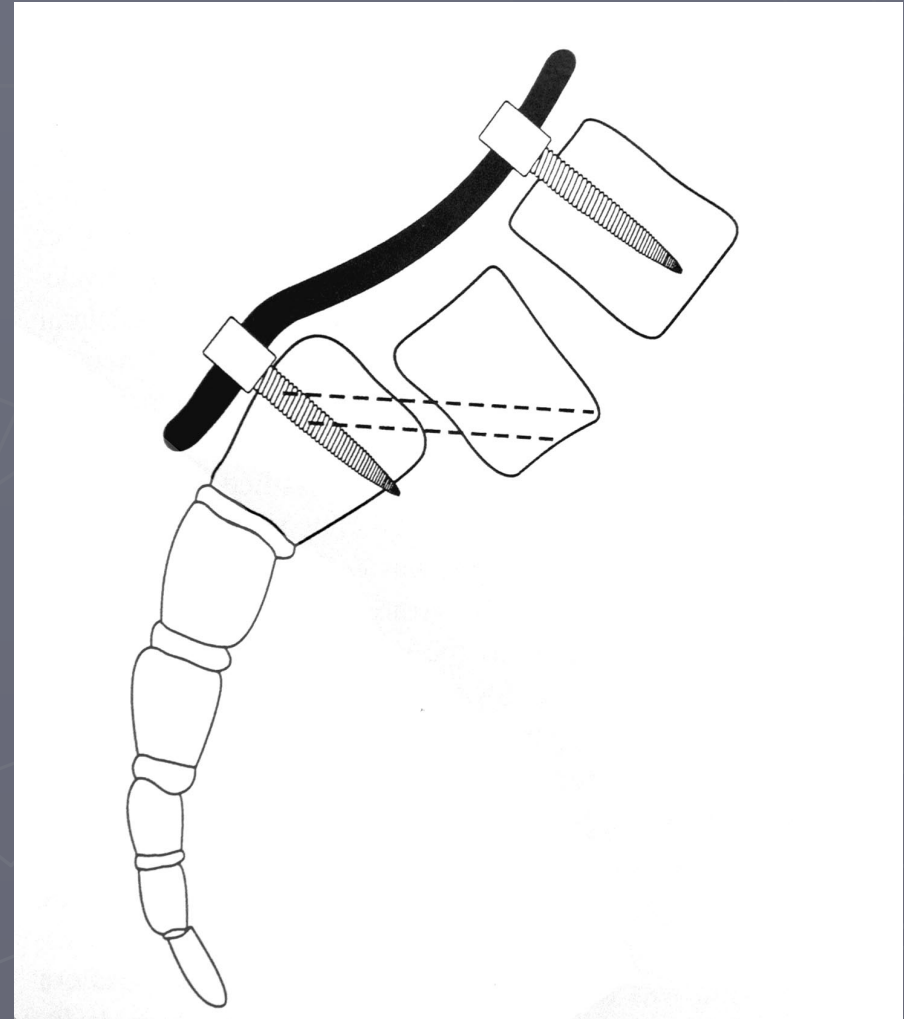
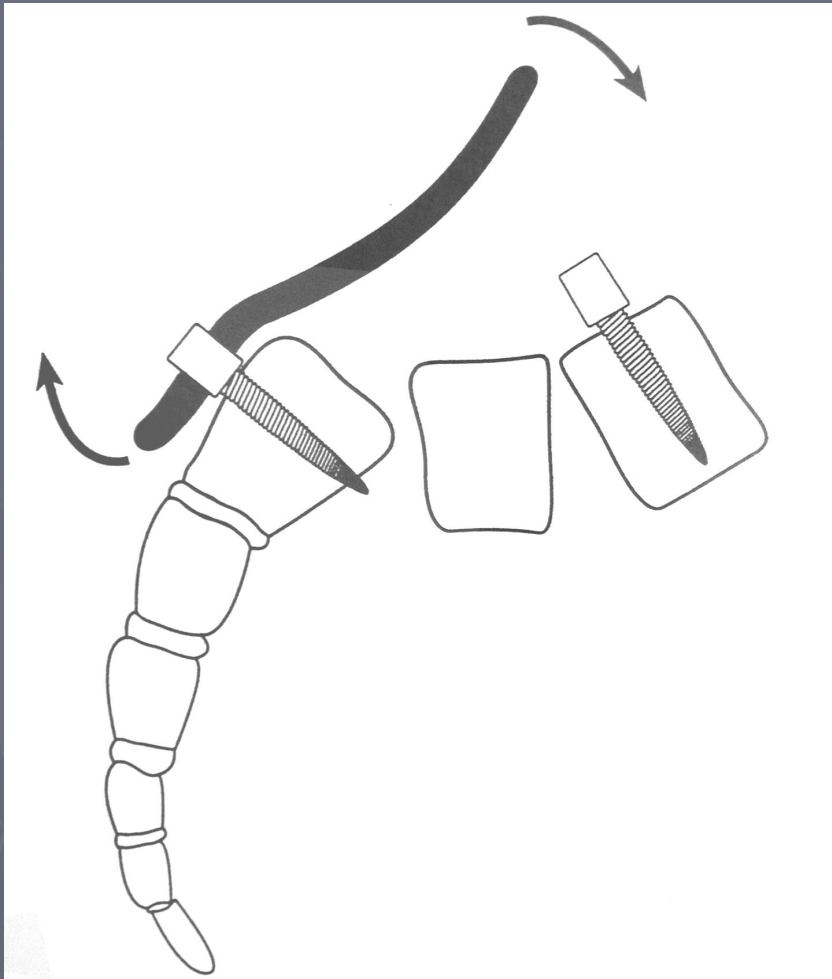


38 år, marathondløber,
L4/L5 isthmisk spondylolisthese

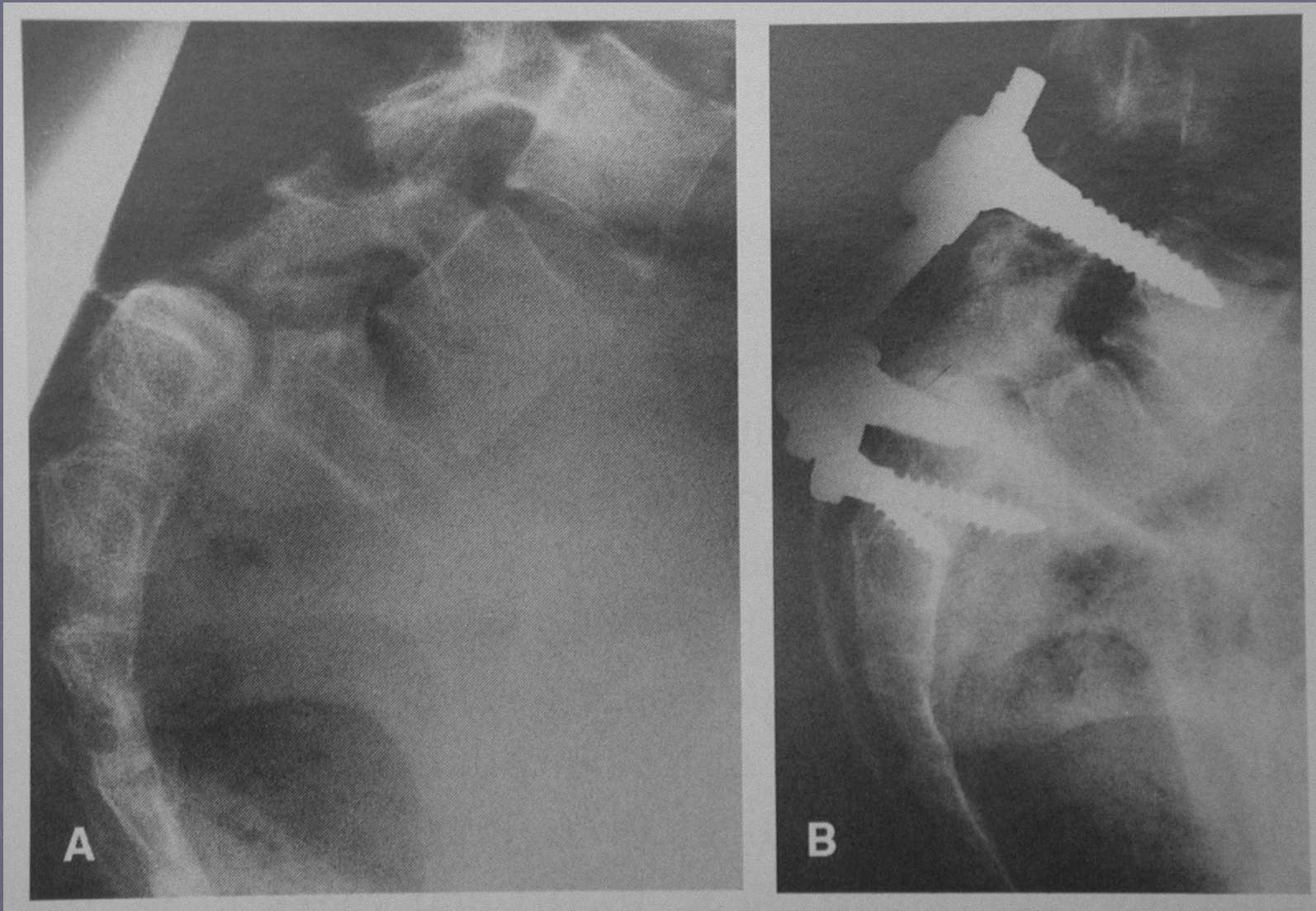
360 fusion a.m.
Brantigan/CD
Sport igen efter et år



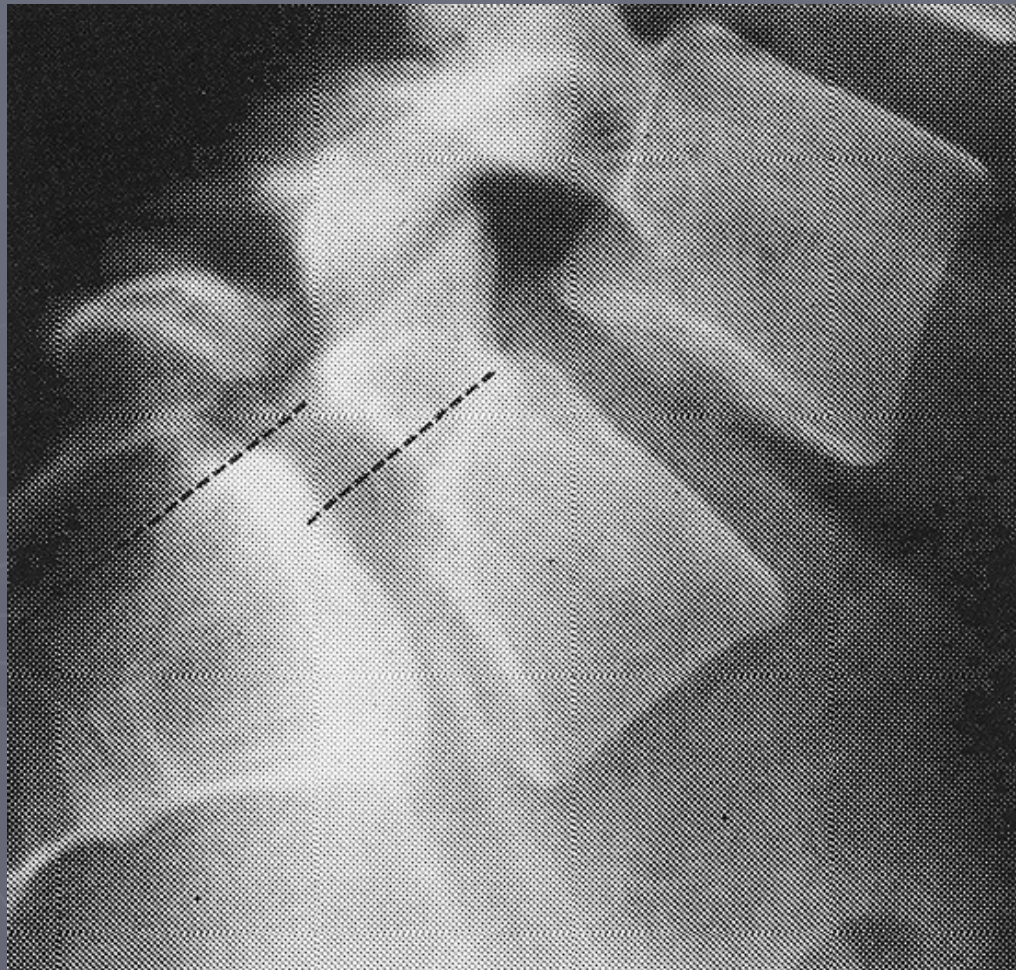
Reposition CD + Kellogg Speed



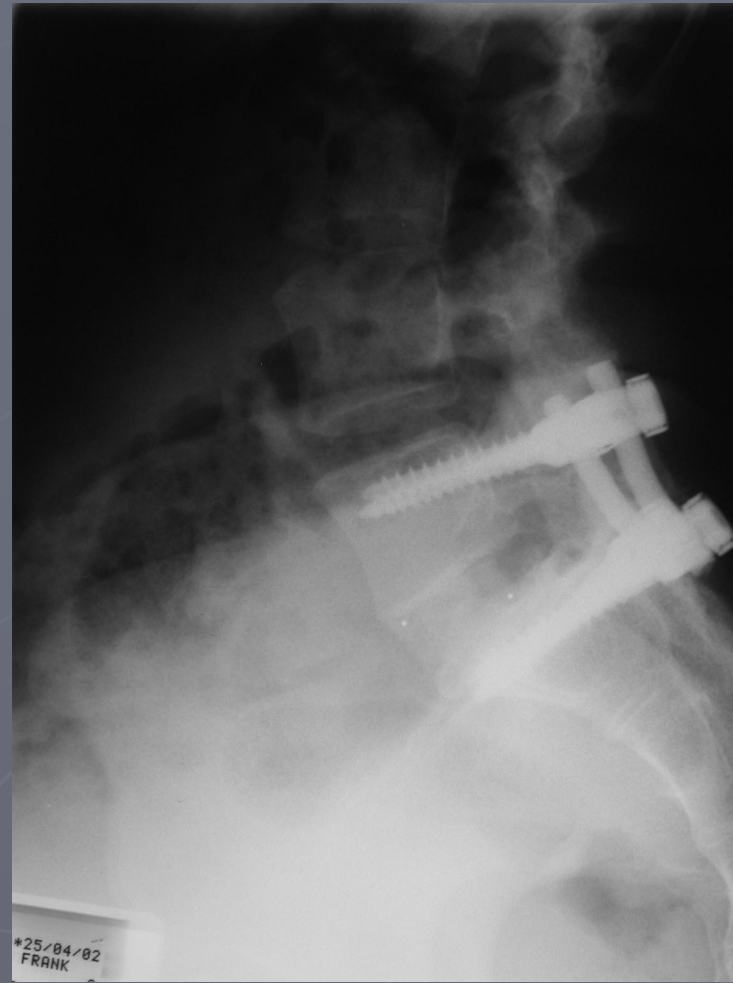
Reposition CD + Kellogg Speed



"What to do?"



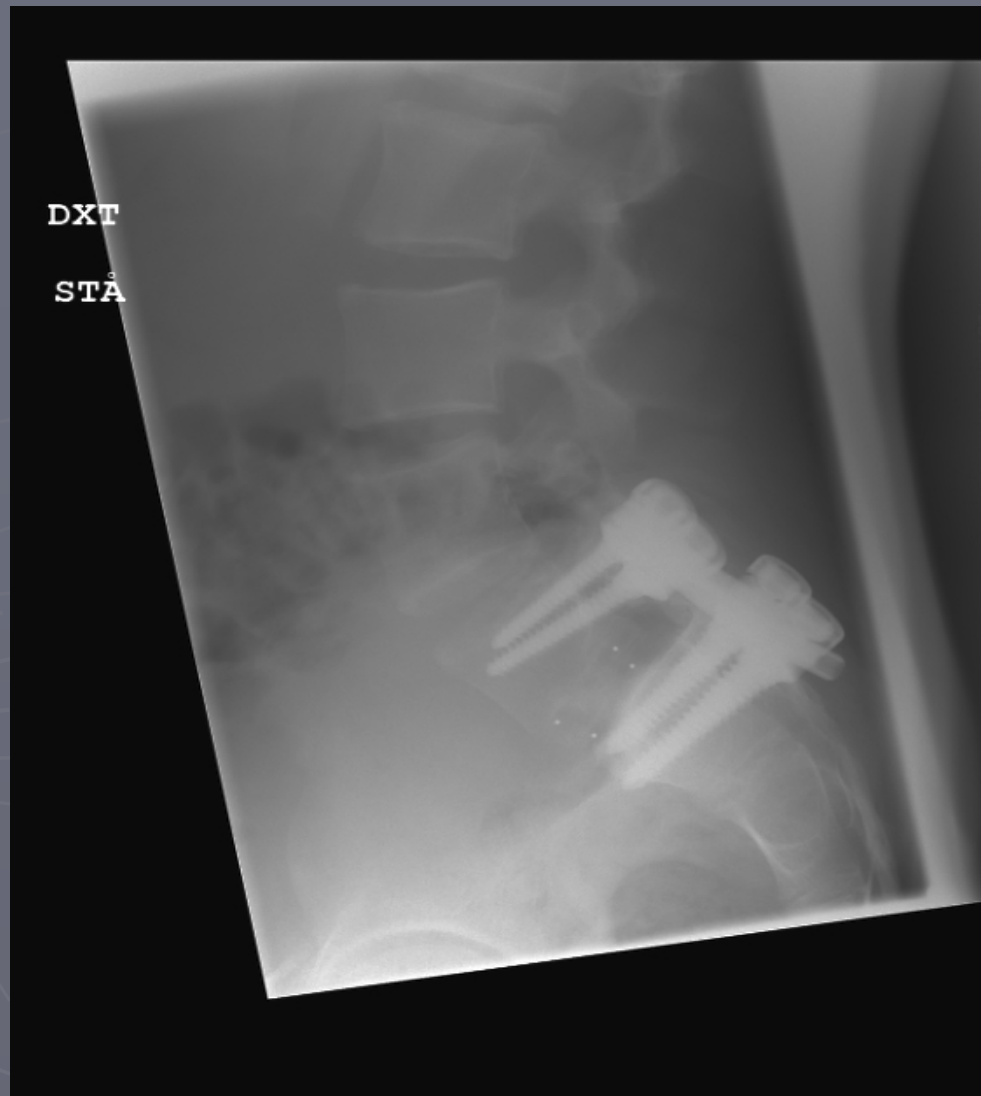
"What we did"



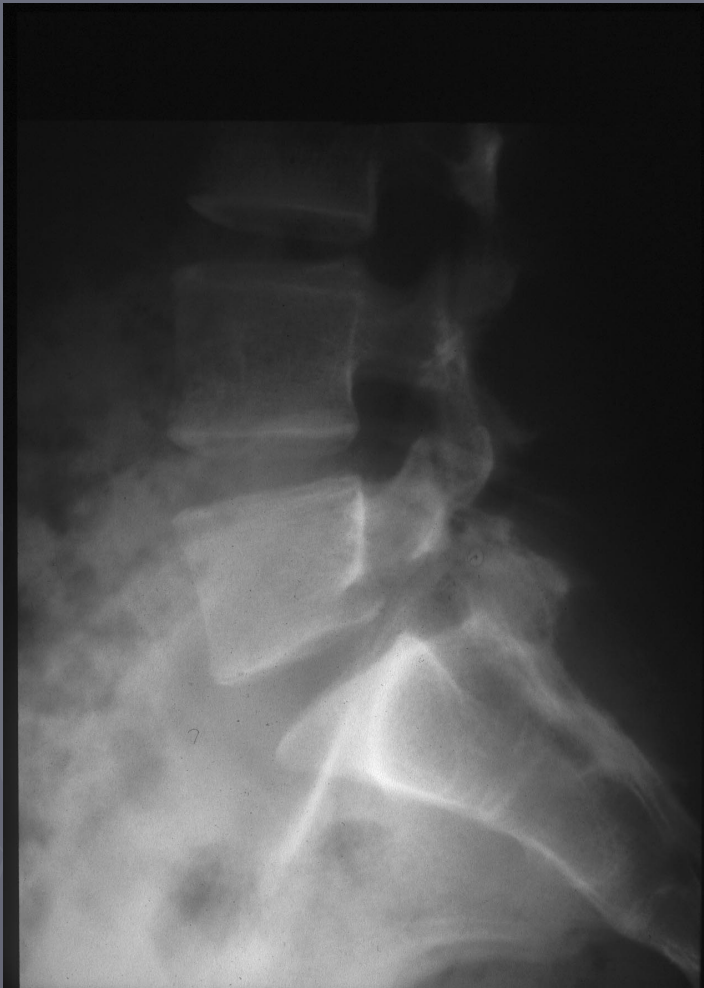
"What to do?"



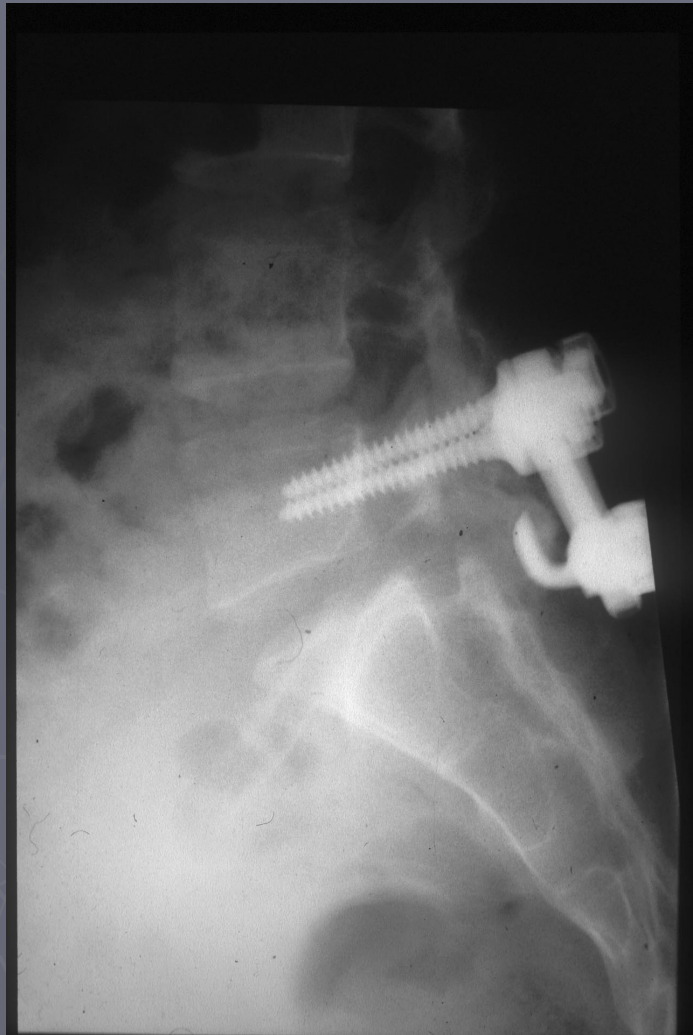
"What we did"



What to do



What we (once) did



Resultater

► Funktionelt resultat

- Godt hos voksne i ca 80 %
- Godt hos børn og unge > 85%

Konklusioner

- ▶ Spondylolisthese hyppig i befolkningen
- ▶ Kirurgisk behandling ikke hyppig
 - Evidensbaseret
 - Kræver selektion
- ▶ Differentieret kirurgisk tilbud
 - Alder
 - Patologi
 - Smertekilde
- ▶ Centralisering til centre, som behersker alle teknikker