

ESF projekt UP.03.3.1.04.0020

REGIONALNI CENTAR KOMPETENTNOSTI MLINARSKA



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Mlinarska

UTJECAJ TERMOMINERALNE VODE NA SMANJENJE DEFORMACIJA
KRALJEŽNICE KOD DJECE ŠKOLSKOG UZRASTA

PROGRAM STRUČNOG USAVRŠAVANJA ZDRAVSTVENIH DJELATNIKA

Kifoze i lordoze

Marko Babić

Srednja škola Topusko



Europska unija
"Zajedno do fondova EU"



EUROPSKI STRUKTURNI
I INVESTICIJSKI FONDovi

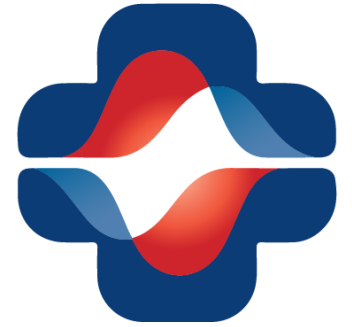


ESF
UČINKOVITI
LJUDSKI
POTENCIJALI

Projekt je sufinancirala Europska unija iz Europskog socijalnog fonda.

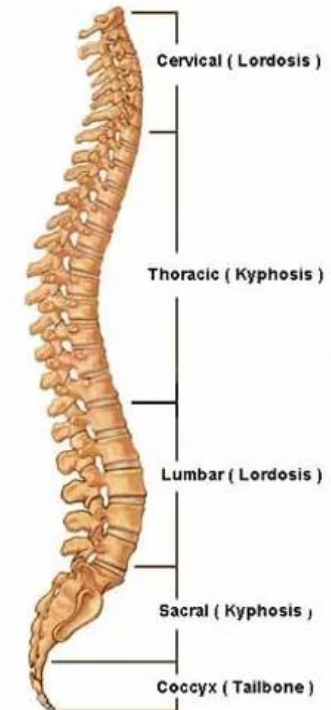
1. Fiziološka kifoza

- Prisutna u prsnom (torakalnom) i križnom (sakralnom) dijelu kralježnice
- Normalno iznosi 20-40°
- <https://www.youtube.com/watch?v=DOi24AH5yiE>



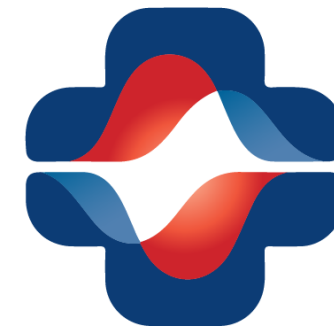
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Lateral (Side) Spinal Column

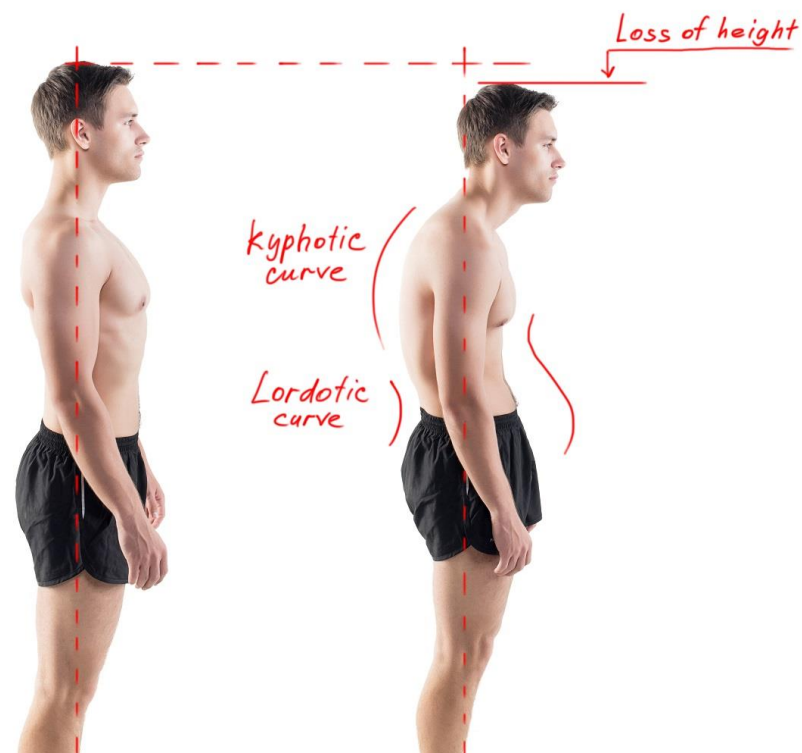


2. Deformitet- kifoza

- Sagitalna ravnina
- Povećanje konveksiteta prema straga
- $> 40^\circ$



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3. Uzroci- strukturalni

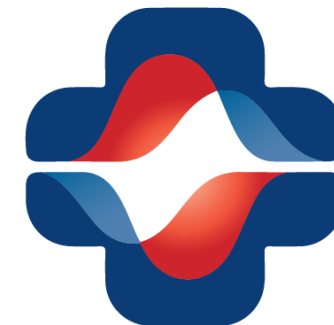
- Kongenitalne (prirođene)
- Scheurmanove bolesti
- Koštane displazije
- Osteoporoza
- Posttraumatske
- Infekcije i tumori
- Reumatske bolesti



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Uzroci- nestrukturalne

•Kifotično držanje



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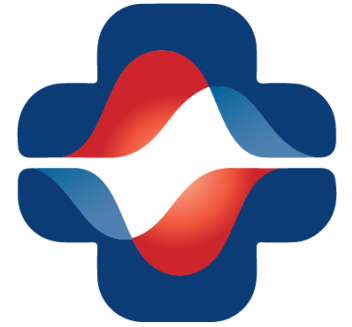
4. Klinička slika



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- Konveksitet lučnog oblika ili pod oštrim kutom
- GIBUS
- Rođenjem cijela je kralježnica kifotična (položaj fetusa u maternici); kasnije dobiva oblik dvostrukog slova S
- Deformitet je asimptomatski (u većini slučajeva)
- Bolovi se pojavljuju nakon većeg opterećenja
- Najlošiju prognozu imaju *kongenitalne kifoze* (neurološki ispadi)

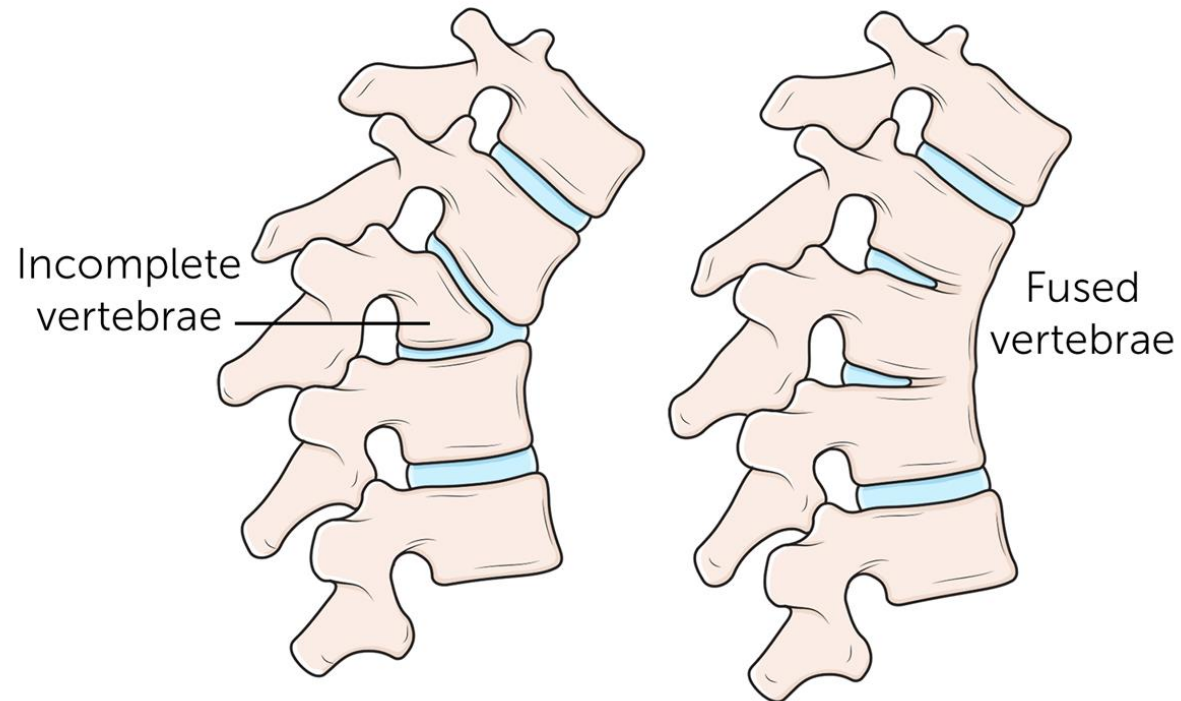
4. Klinička slika (2)



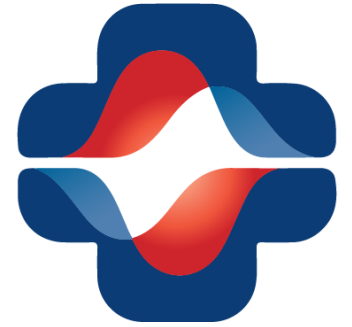
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Congenital Kyphosis

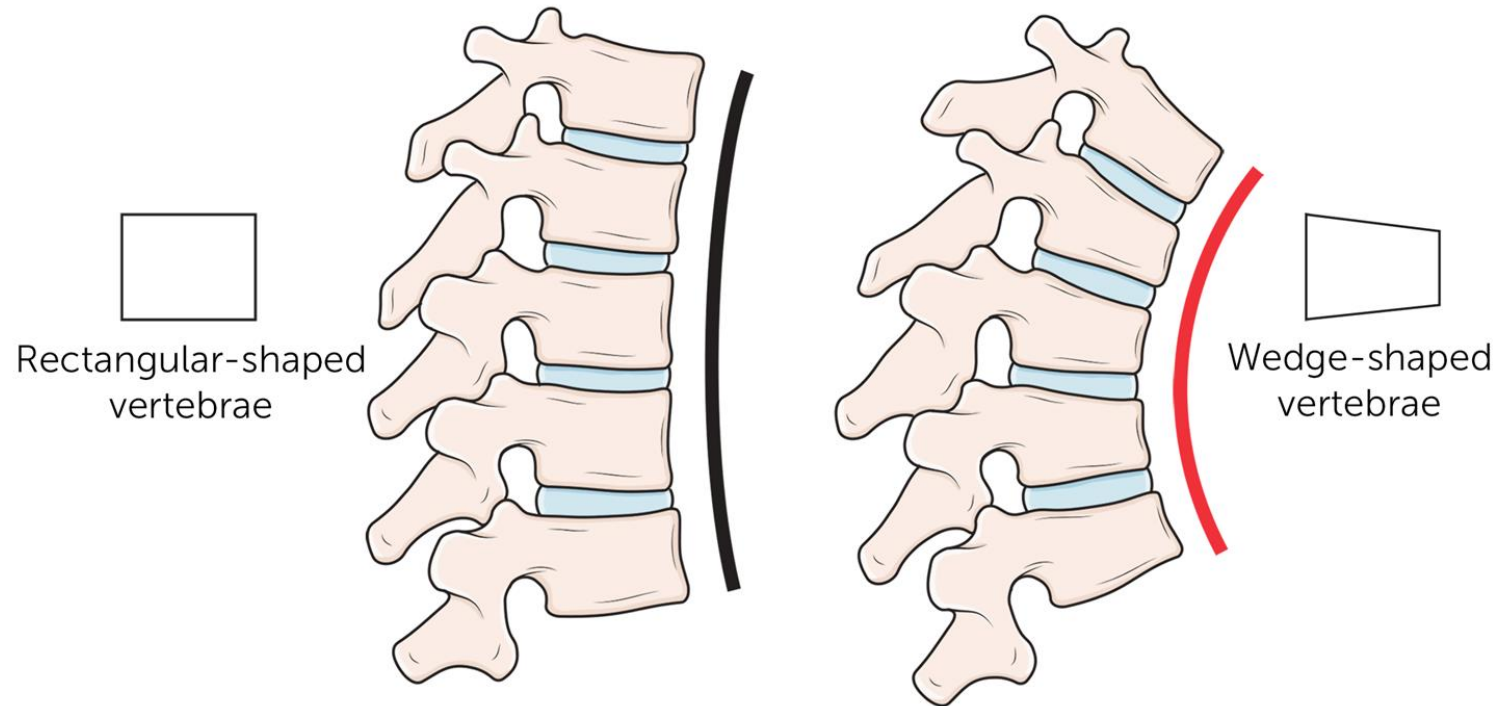


4. Klinička slika (3)

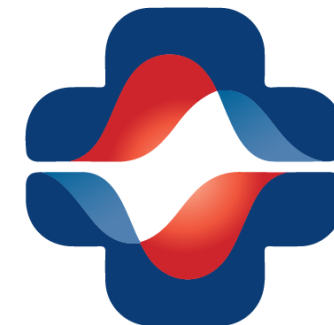


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Scheuermann Kyphosis



5. Dijagnostika kifoze



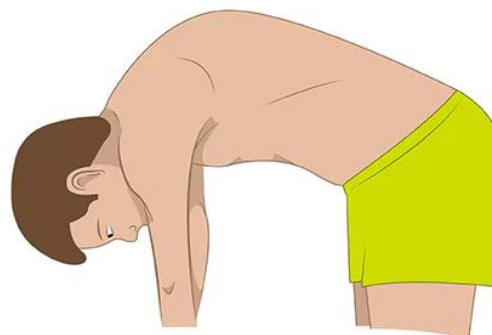
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- Test pretkolona (Adamsov test)
- RTG, MR
- <https://www.youtube.com/watch?v=1EPii3Pz6V0>

 BRACEABILITY

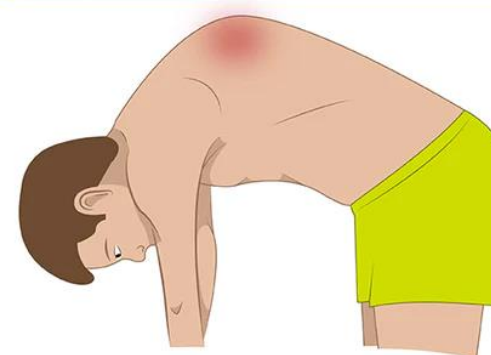
Postural Kyphosis

Excessive curve of the back rounds when bending



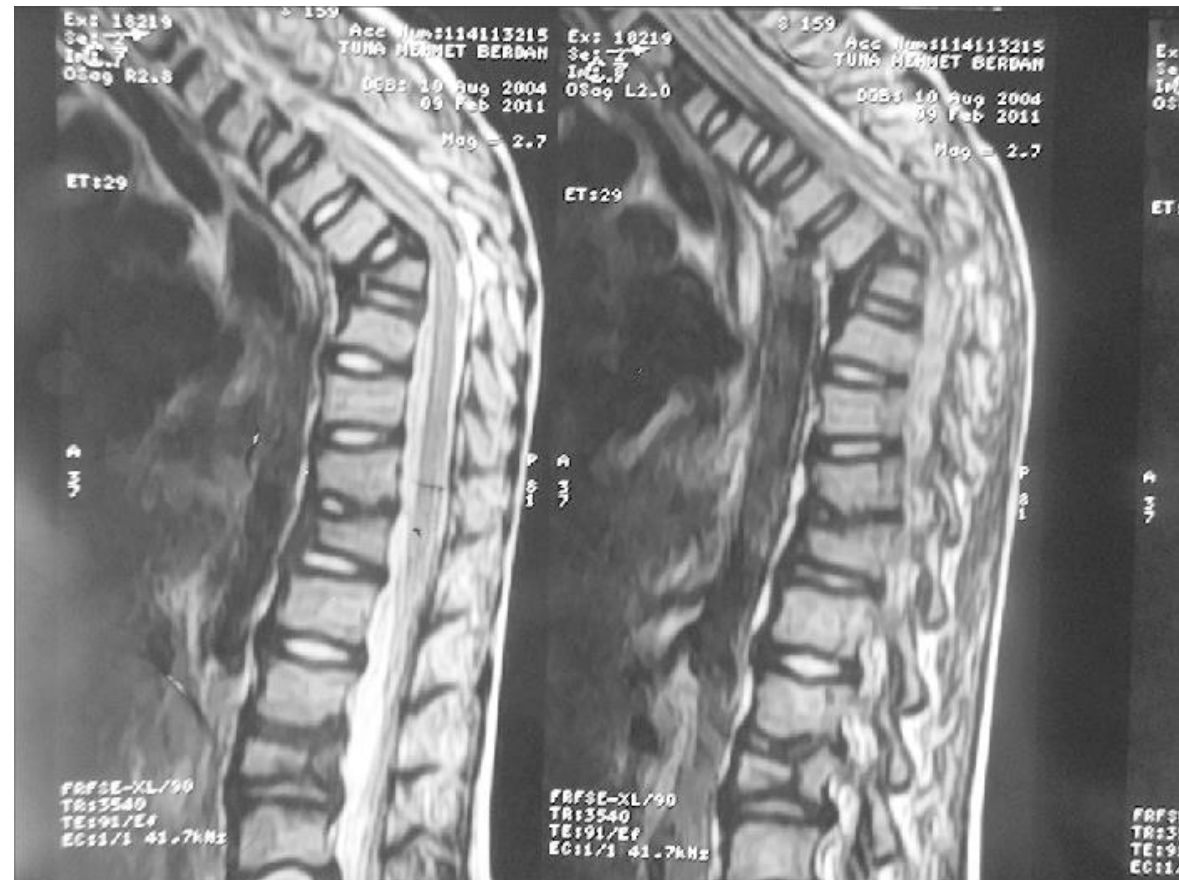
Scheuermann's Kyphosis

No smoothing of the back occurs when bending due to structural changes in the spine



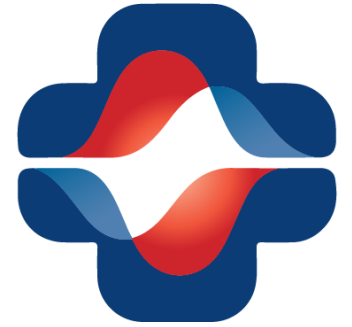
5. Dijagnostika kifoze (2)

- Kifoza na razini Th7- Th 8

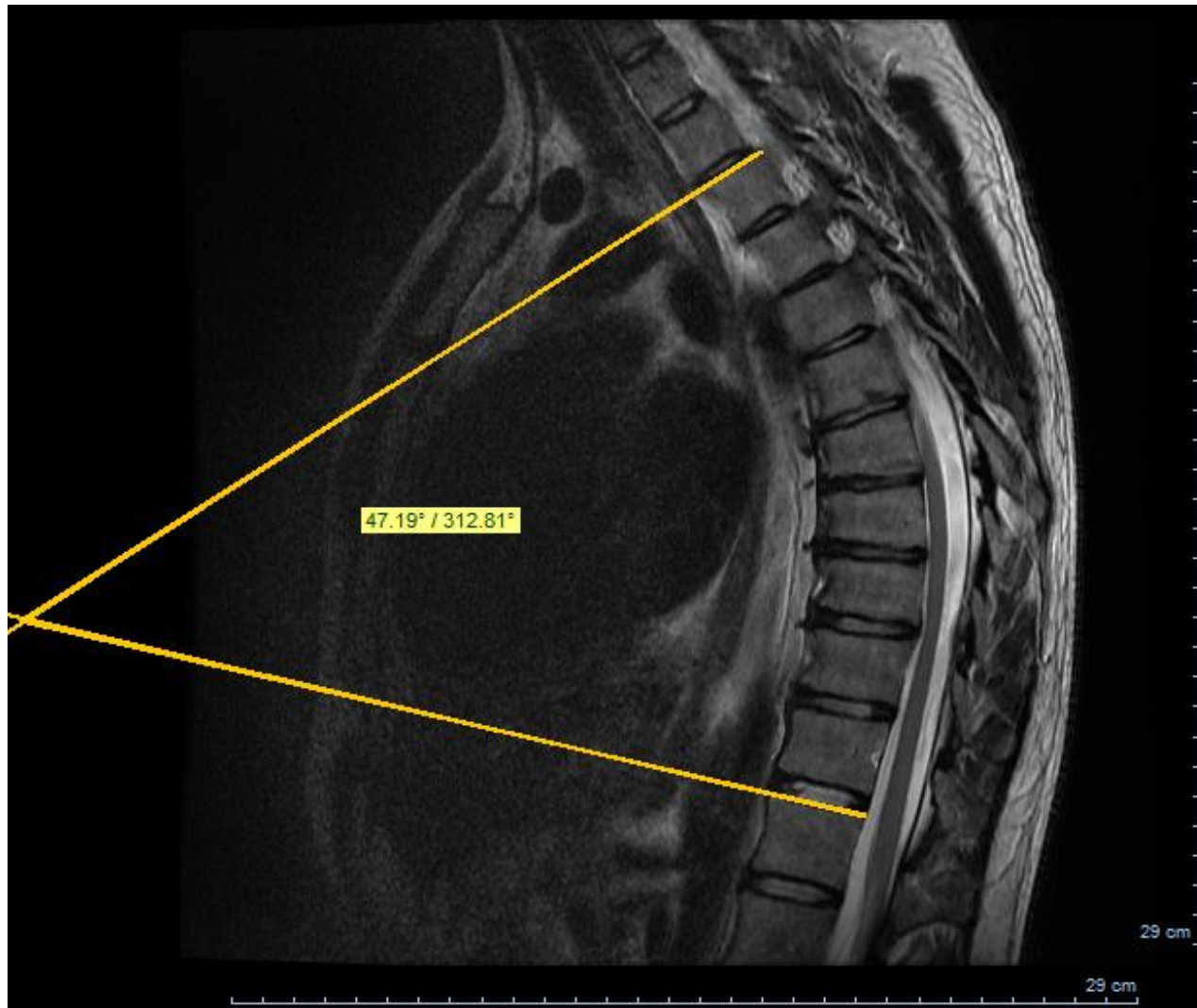


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5. Dijagnostika kifoze (3)



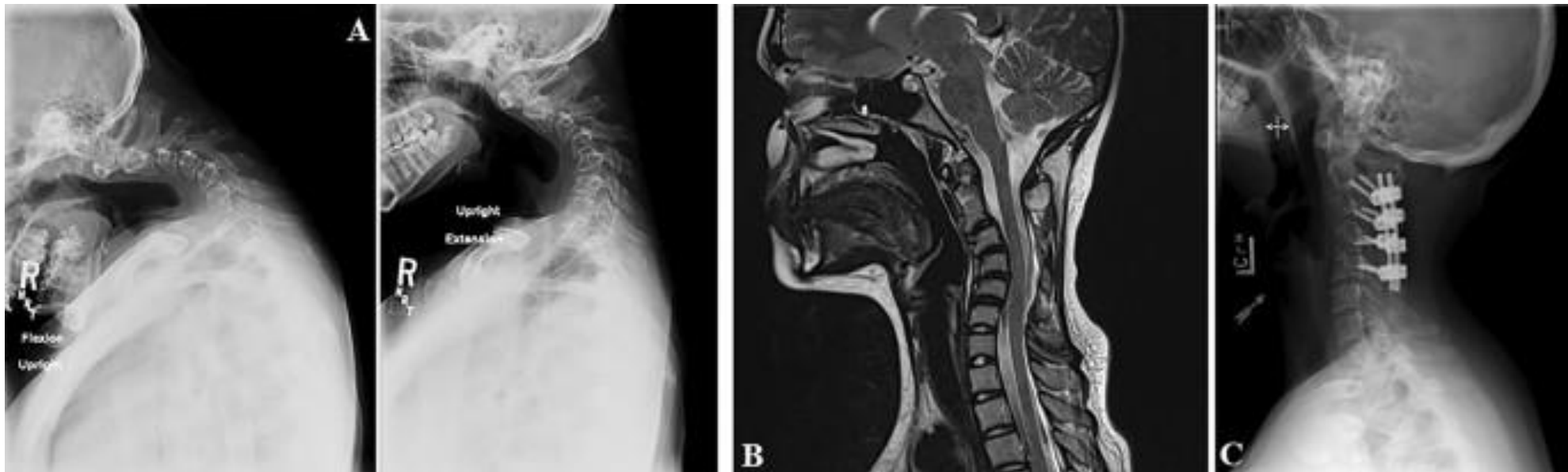
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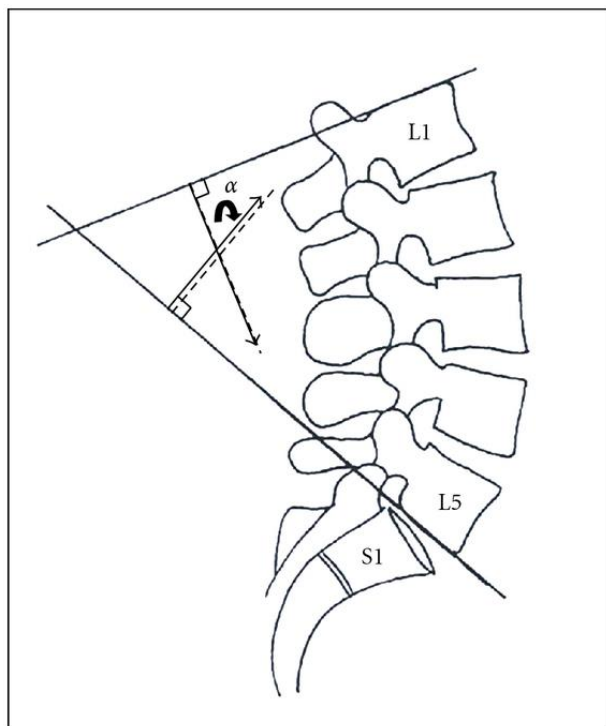


5. Dijagnostika kifoze (4)

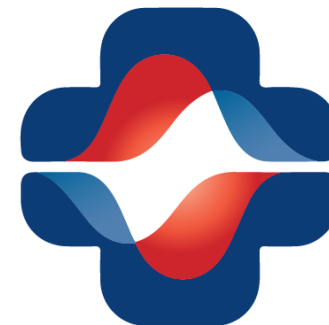
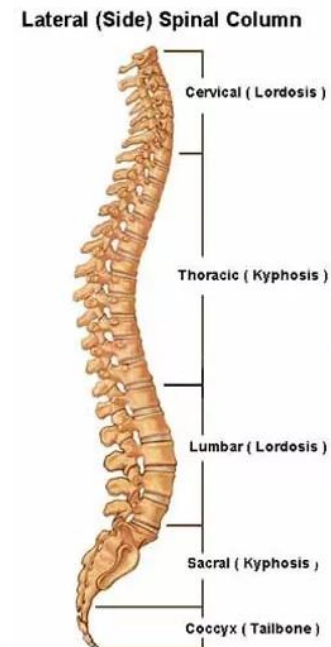


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6. Lordoza

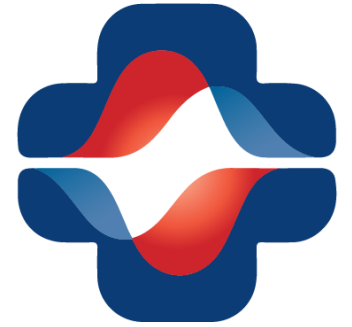


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- Fiziološki prisutna u vratnom (cervikalnom) i slabinskom (lumbalnom)
- Mjeri se kutom po *Cobbu* i sve što je preko 30° smatra se deformitetom

6. Lordoza (2)

- Češće je zahvaćena lumbalna nego cervikalna kralježnica
- Kombinacija s kifozaom ili fleksornom kontrakturom kuka



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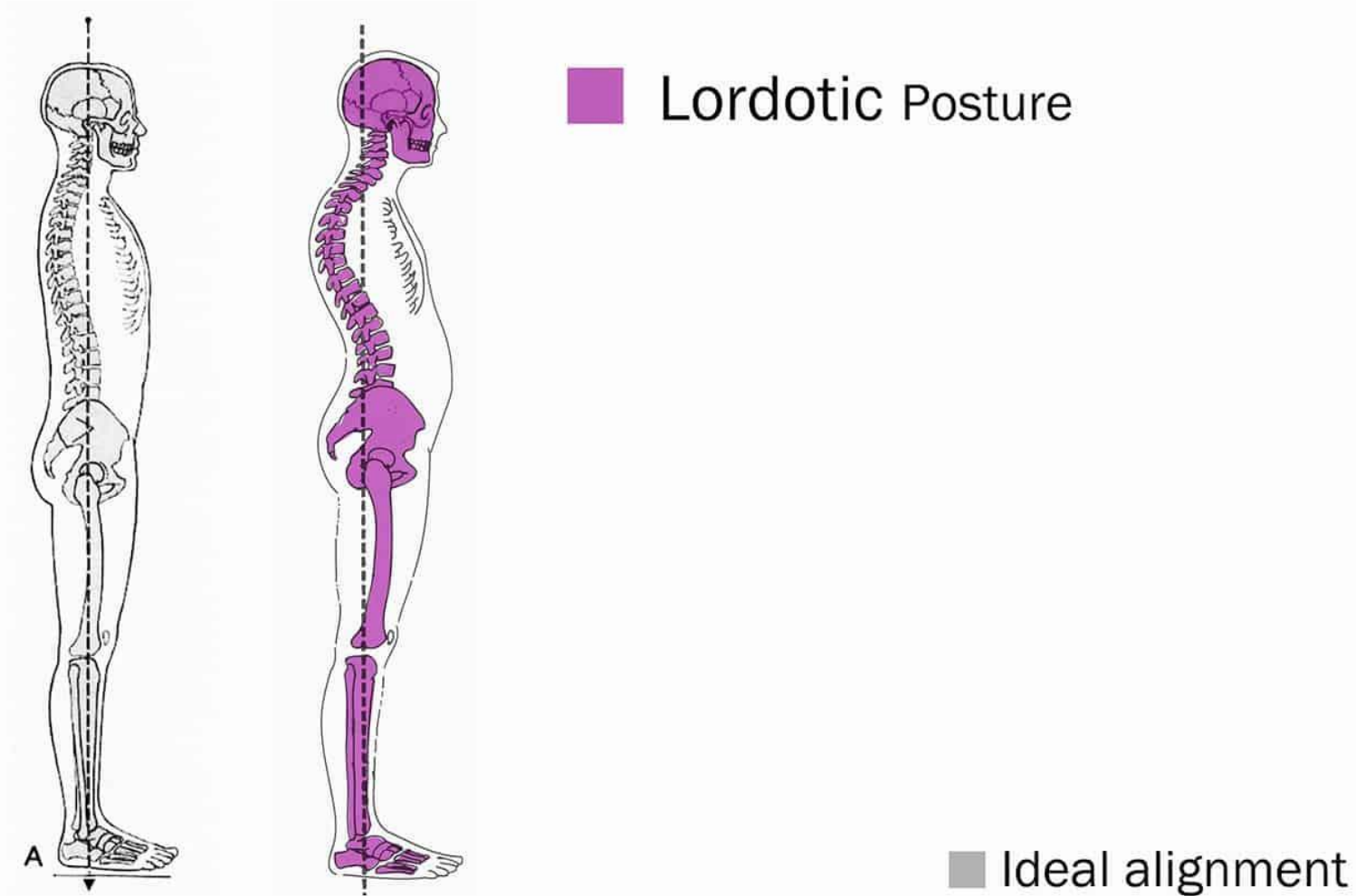
6.1. Karakteristike lordoze

- glava lagano zabačena natrag
- toraks ravan ili izbočen
- pojačana lordotična krivina u lumbalnom dijelu
- zdjelica u inklinaciji
- slaba trbušna muskulatura
- koljena u hiperekstenziji



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6.1. Karakteristike lordoze (2)



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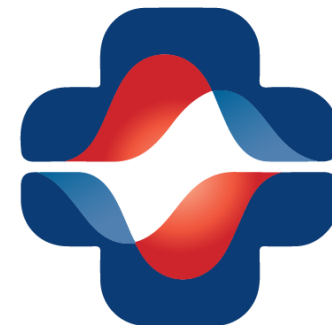
6.2. Podjela lordoza

- Prema izgledu koštanih struktura

- **Strukturalne**
- **Funkcionalne**

- Prema vremenu nastanka

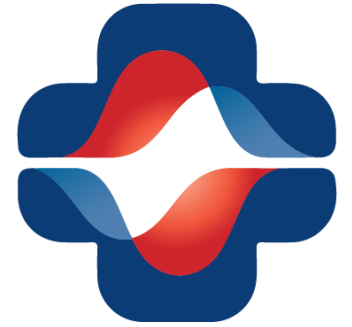
- **Kongenitalne**
- **Stečene**



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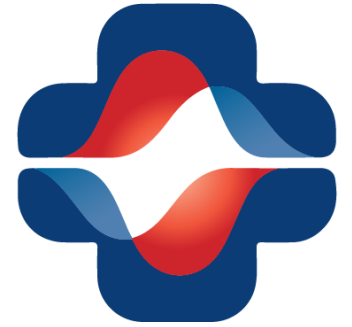
6.3. Dijagnostika lordoze

- Klinički pregled
- MRI + RTG

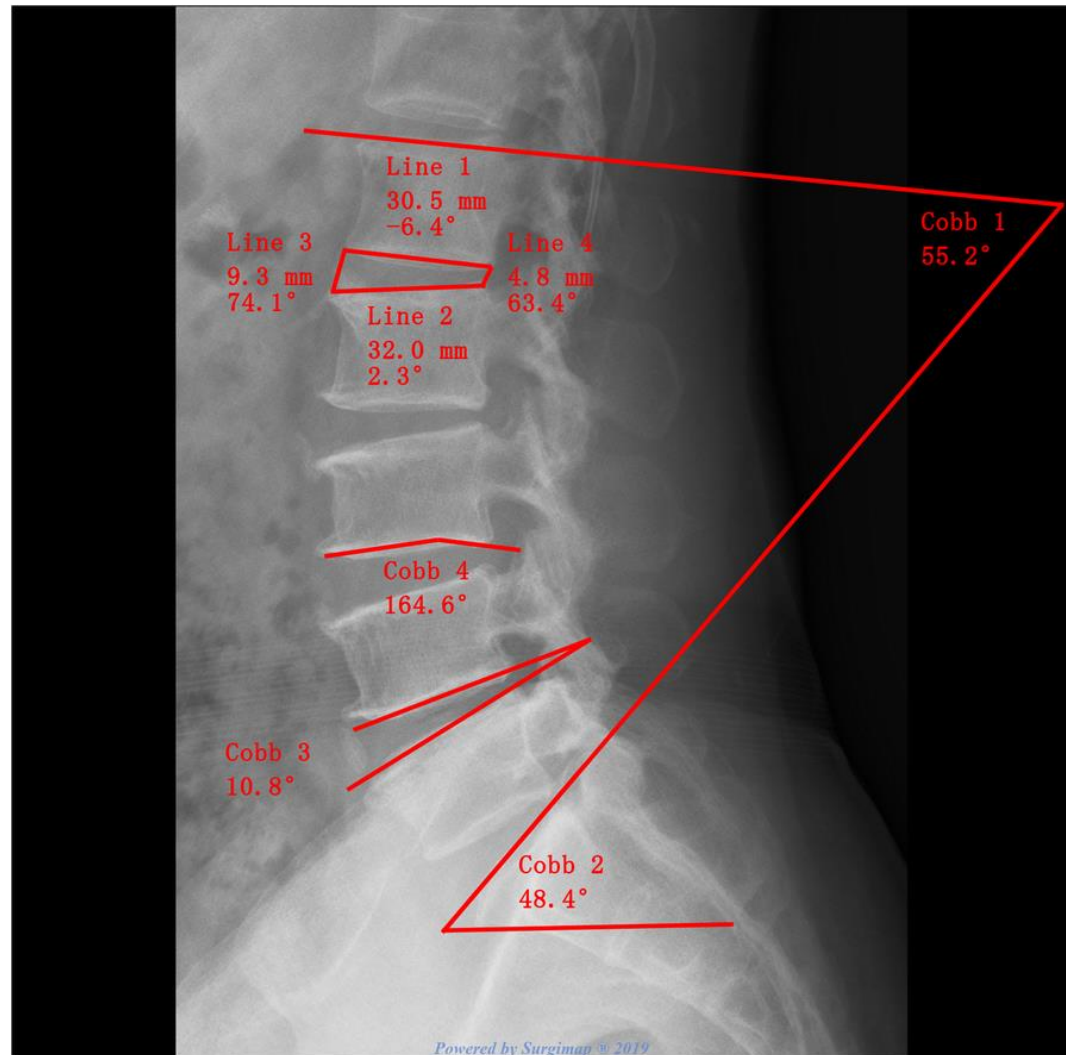


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6.3. Dijagnostika lordoze (2)



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7. Literatura

- 1) Anka Kovačević, Fizioterapija deformacija lokomotornog sustava, Alka script, Zagreb 2013.
- 2) Kosinac Z., Kineziterapija sustava za kretanje, Udruga za šport i rekreaciju djece i mladeži grada Splita, Split 2002.
- 3) [https://www.physio-pedia.com/index.php?title=Thoracic Hyperkyphosis&redirect=no%3Futm_source%3Dphysiopedia&utm_medium=search&utm_campaign=ongoing_internal](https://www.physio-pedia.com/index.php?title=Thoracic_Hyperkyphosis&redirect=no%3Futm_source%3Dphysiopedia&utm_medium=search&utm_campaign=ongoing_internal), pristupljeno 19.lipnja 2022.
- 4) Ivo Jajić, Zrinka Jajić i suradnici, Fizikalna i rehabilitacijska medicina, Medicinska naklada, Zagreb 2008.



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