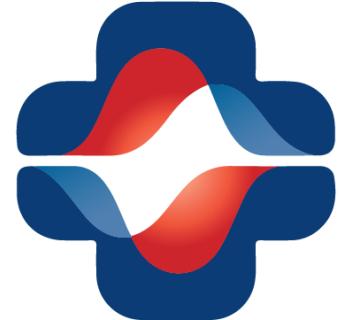


ESF projekt UP.03.3.1.04.0020

# REGIONALNI CENTAR KOMPETENTNOSTI MLINARSKA



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UTJECAJ TERMOMINERALNE VODE NA SMANJENJE DEFORMACIJA  
KRALJEŽNICE KOD DJECE ŠKOLSKOG UZRASTA

PROGRAM STRUČNOG USAVRŠAVANJA UČENIKA

## *Skolioze*

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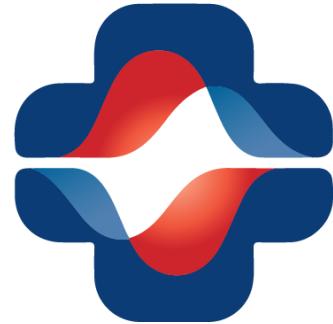
Ivan Vrbić

Marko Babić

Srednja škola Topusko



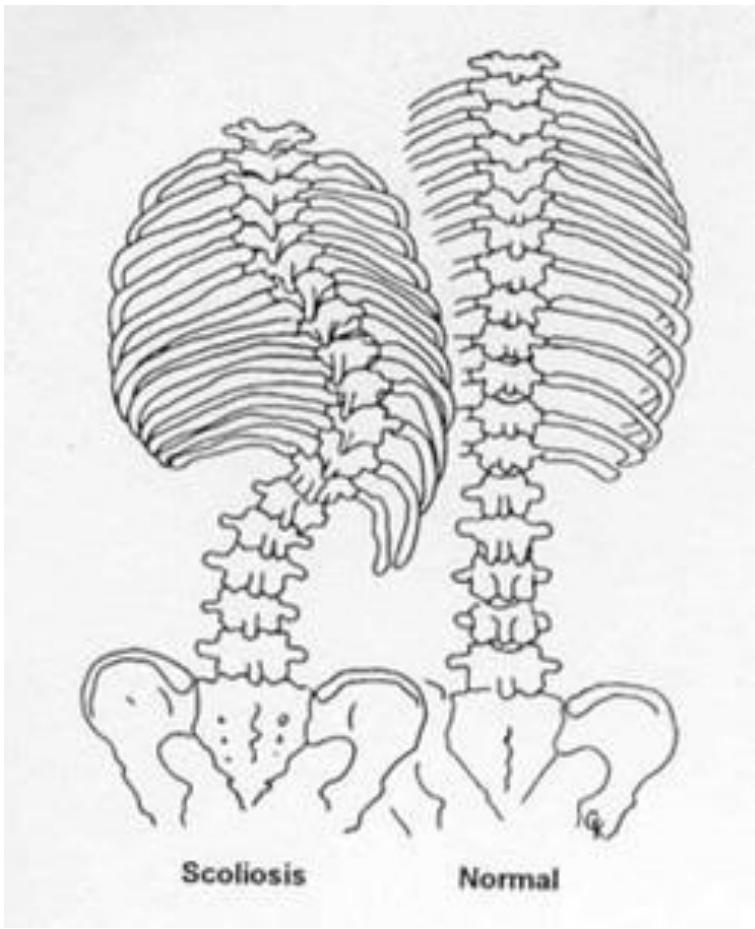
Projekt je sufinancirala Europska unija iz Europskog socijalnog fonda.



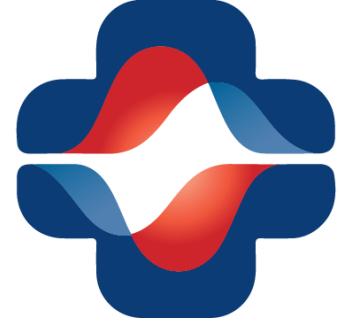
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# Ishodi

- definirati pojam skolioze
- navesti uzroke skolioze
- opisati kliničku sliku skolioze
- dati primjer dijagnostičkih alata koji se koriste kod skolioze



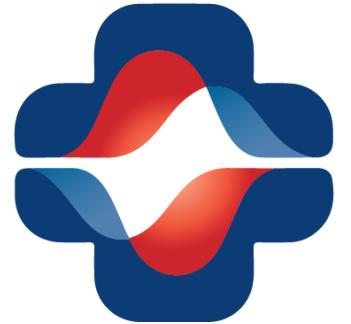
# 1. Uvod



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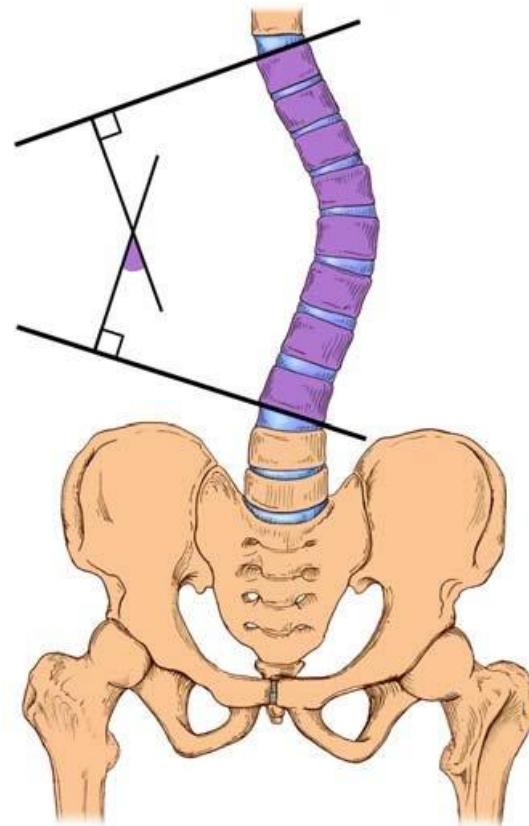
Slika 1. Skolioza

- trodimenzionalnu deformaciju kralježnice kod koje dolazi do postraničnog savijanja i rotacije kralježnice uz torziju kralježaka te gubitka fiziološke kifoze u torakalnom dijelu

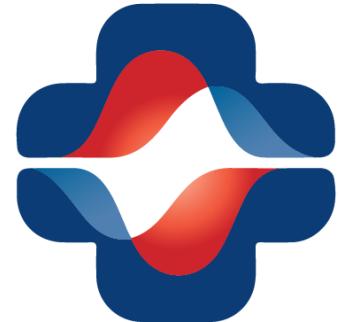


# 1. Uvod (2)

- Iskrivljenost po Cobbu



Slika 2. Mjerenje kuta po Cobbu



## 2. Uzroci – strukturalni

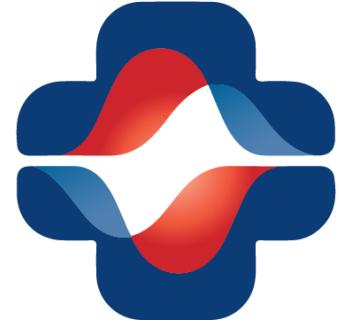
- Idiopatski
  - Infantilne
  - Juvenilne
  - Adolescentne
- Kongenitalne
- Neuropatske
  - Neuropatske
  - Miopatske



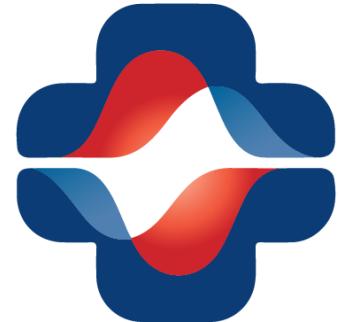
Slika 3. Promjena u izgledu kralježaka

## 2. Uzroci – nestrukturalni

- Krivo držanje
- Upalni proces
- Nejednaka duljina donjih ekstremitata
- Kontrakture kuka

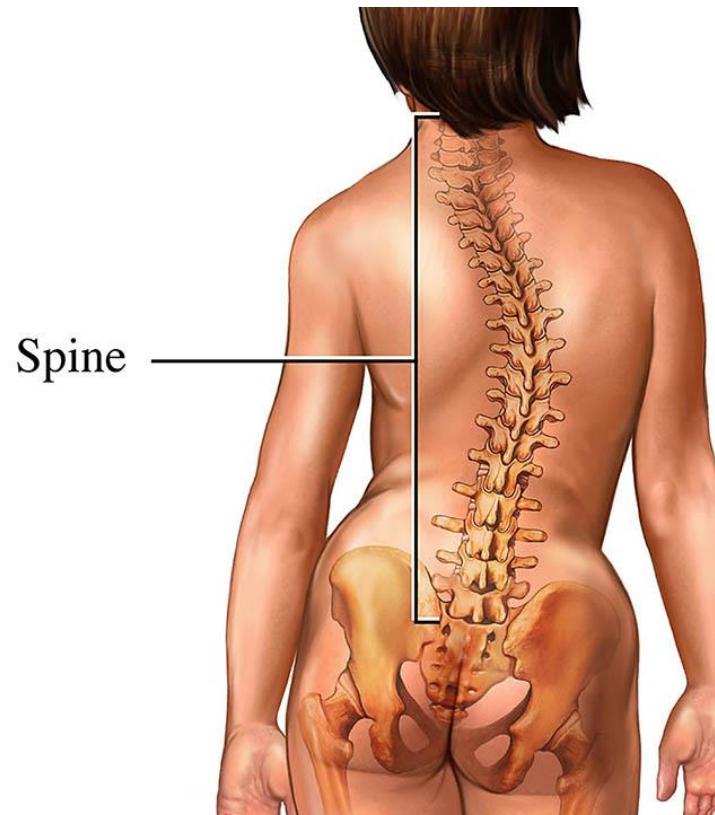


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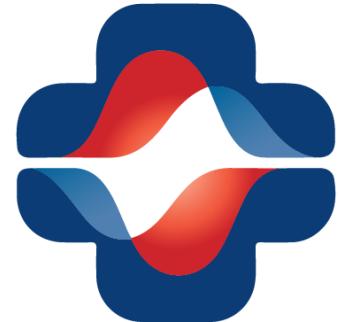


### 3. Klinička slika

- Postranična iskrivljenost u zahvaćenom dijelu kralježnice
- (nejednak tonus mukulature)  $>10^\circ$
- Torakalna kralježnica
- GIBUS



Slika 4. Skolioza-  
postranično iskrivljenje



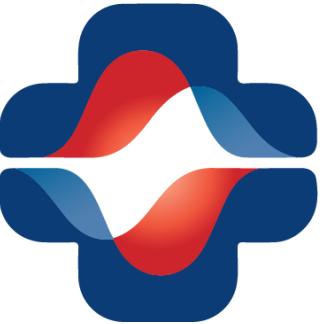
### 3. Klinička slika (2)

- Kongenitalne i neuromuskularen skolioze → loša prognoza
- Idiopatske → bolja prognoza
- Sekundarni zavoj je znak progresije deformiteta

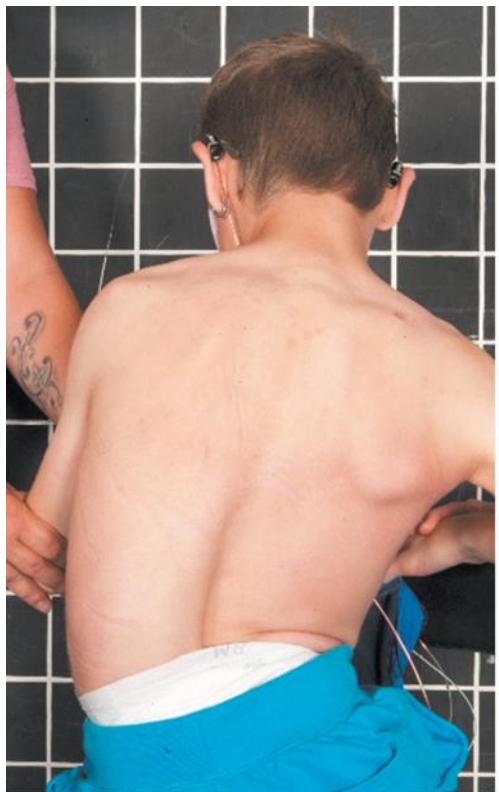
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Slika 5. Neuromuskularne skolioze



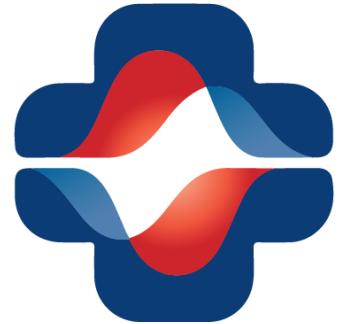


### 3. Klinička slika (3)



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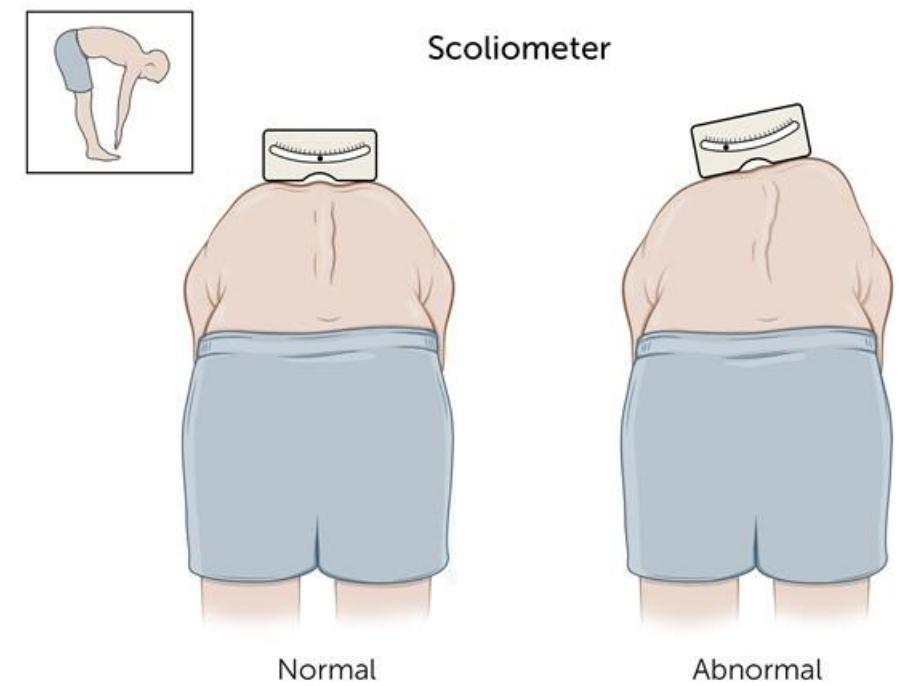
Slika 6.  
Neuromuskularne  
skolioze

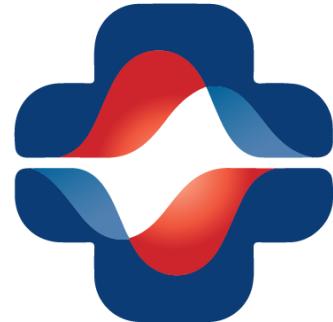


## 4. Dijagnostika

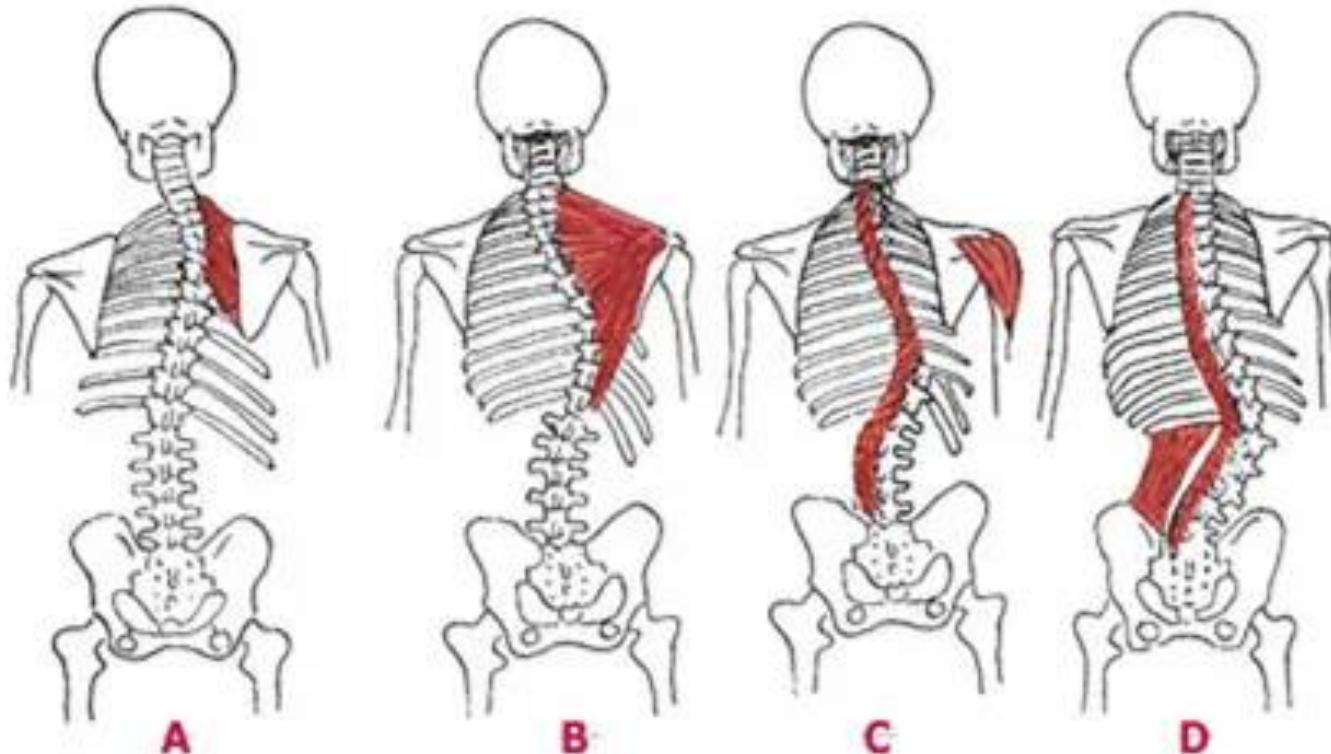
- Opervacija
- Adamsov test →  
<https://www.youtube.com/watch?v=6QUufps+V...>
- RTG +MR

Slika 7. Test pretklona



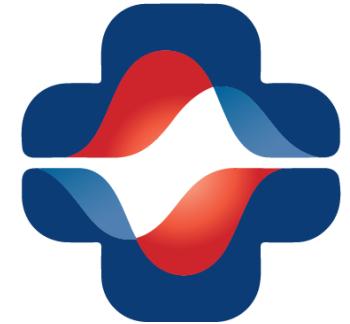


## 4. Dijagnostika (2)

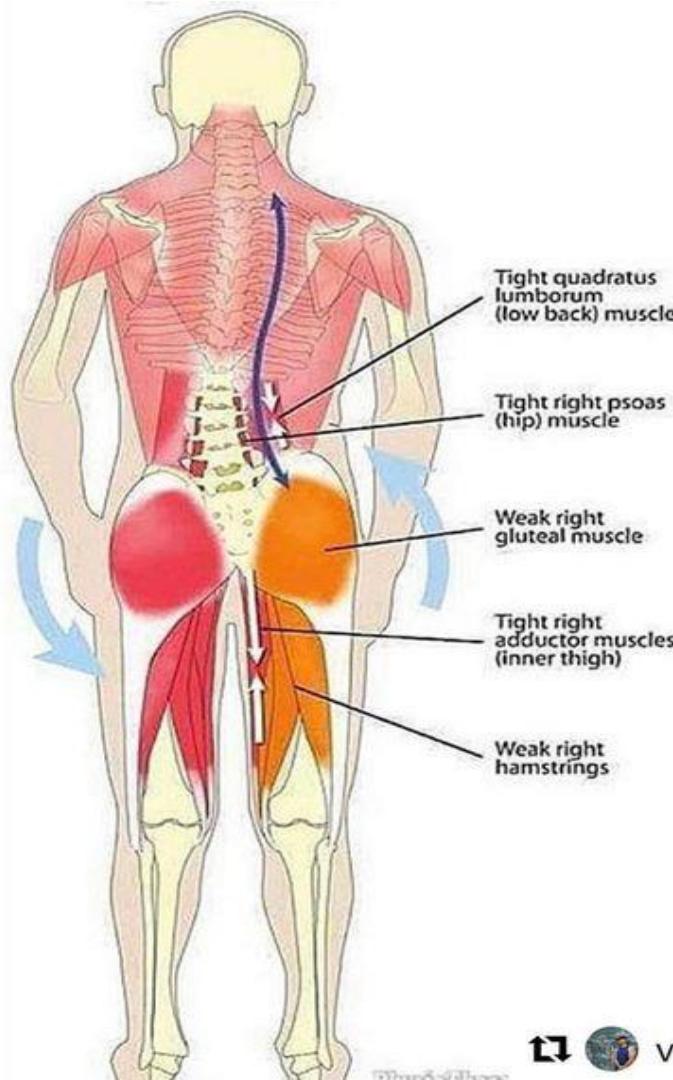


Slika 7. Zahvaćena muskulatura kod skolioze

- A. Unilateral rhomboid hypertonicity
- B. Unilateral trapezius hypertonicity
- C. Unilateral hypertonicity in erector and posterior deltoid
- D. Unilateral hypertonicity in erectors and quadratus lumborum muscles

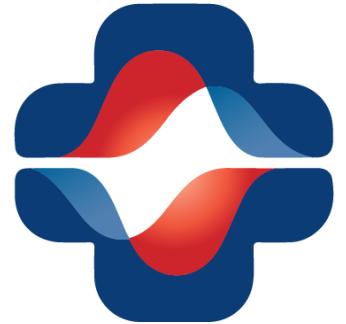


## 4. Dijagnostika (3)

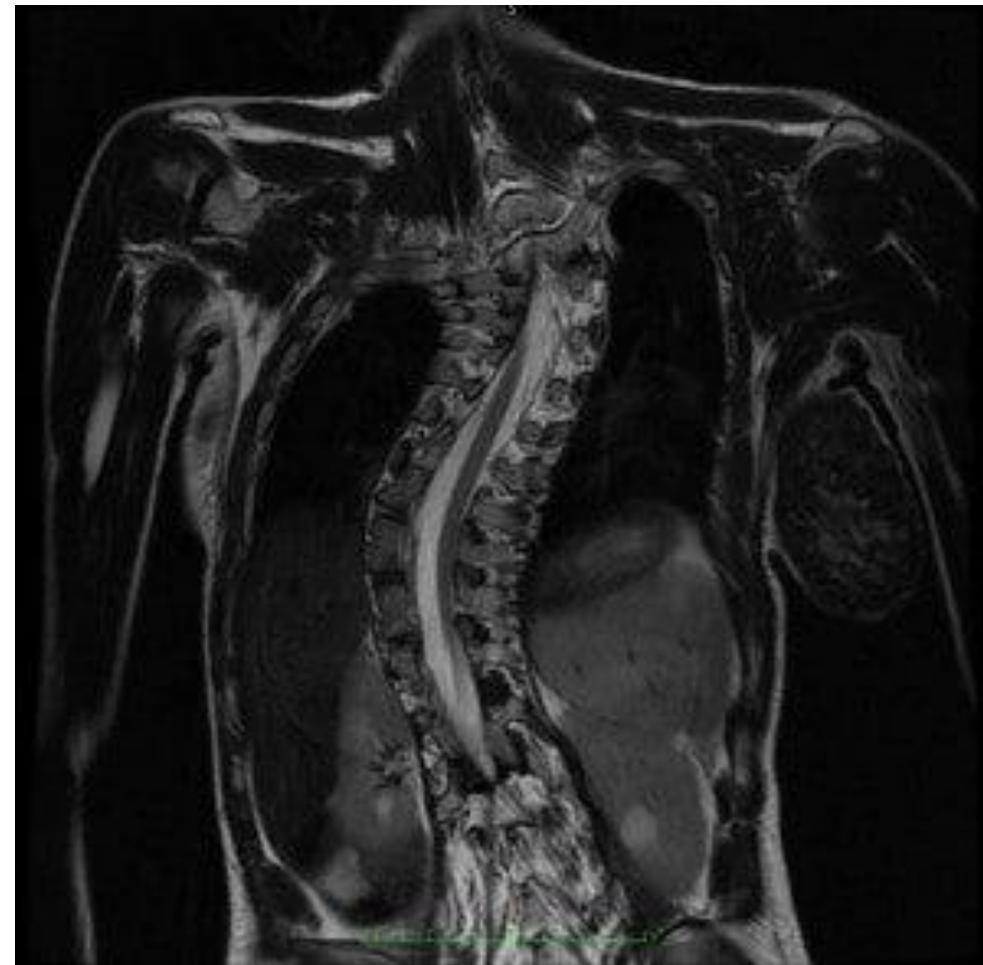
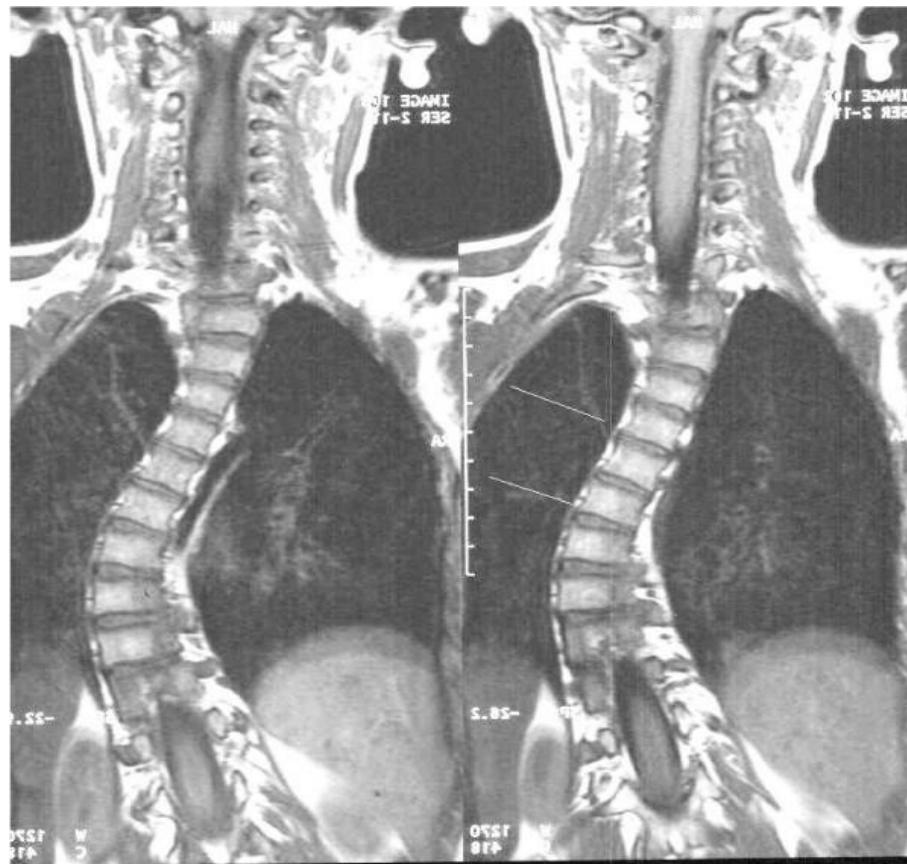


Slika 8. Slaba i napeta muskulatura zdjelice i donjih ekstremiteta



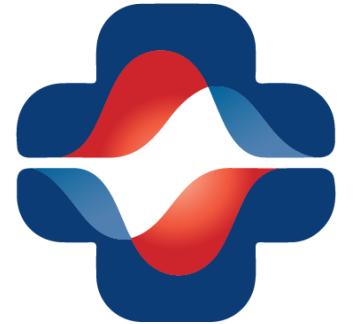


## 4. Dijagnostika (4)



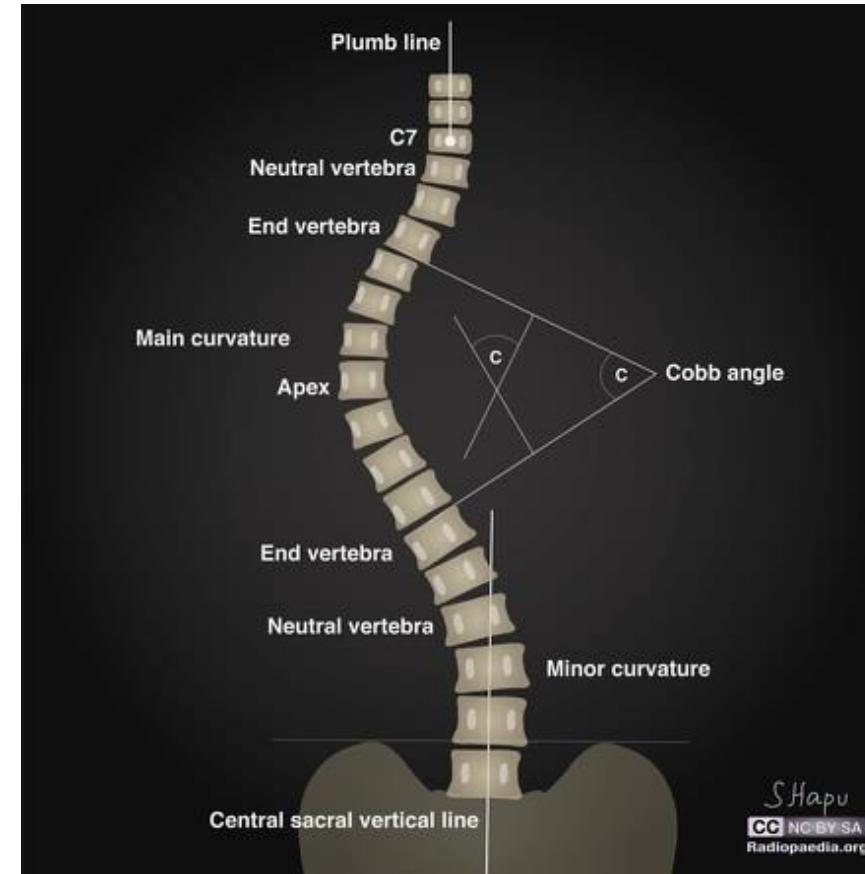
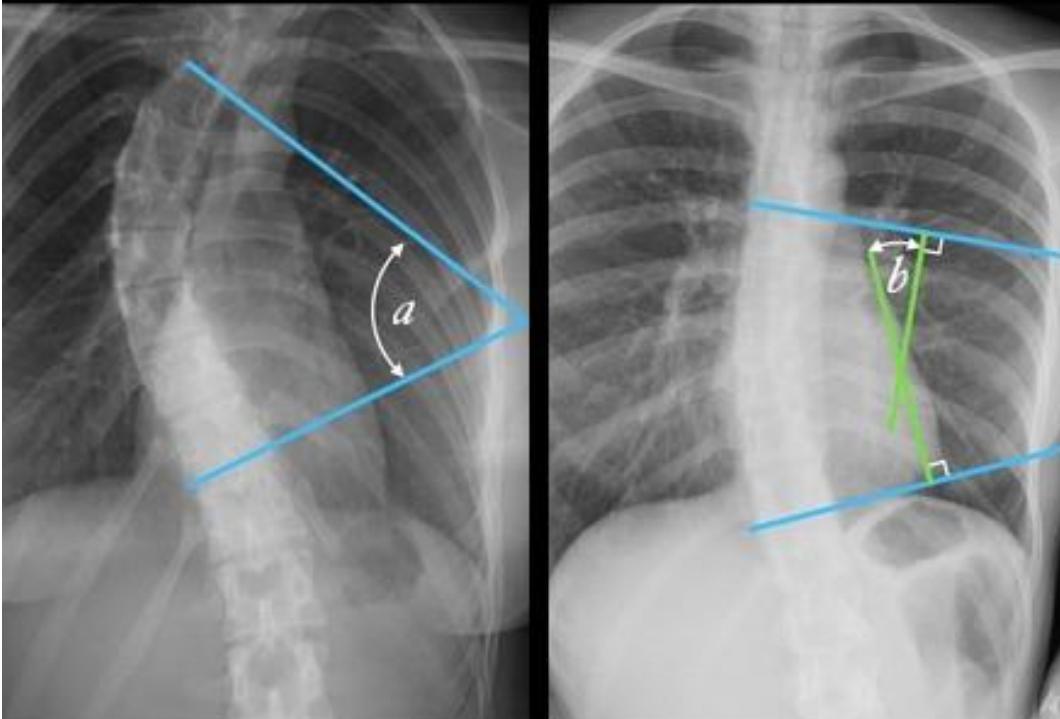
Slika 9. MR prikaz torakalne skolioze

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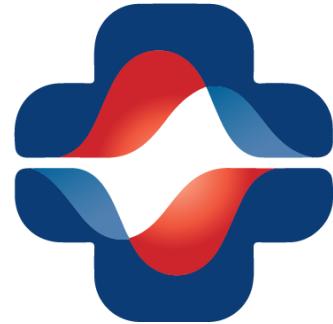


## 4. Dijagnostika (5)

Cobb angle



Slika 10. Cobbov kut

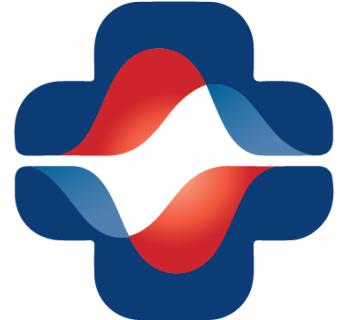


# Pitanja za ponavljanje

- 1) Što je to skolioza?
- 2) Kako mjerimo kut po Cobbu?
- 3) Opiši kliničku sliku skolioze.
- 4) Navedi dijagnostičke alate za otkrivanje ovog deformiteta!
- 5) Opiši Adamsov test!

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# 4. Literatura



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- 2) Kosinac Z., Kineziterapija sustava za kretanje, Udruga za šport i rekreaciju dejece i mladeži grada Splita, Split 2002.
- 3)[https://www.physiopedia.com/index.php?title=Thoracic\\_Hyperkyphosis&redirect=no%3Futm\\_source%3Dphysiopedia&utm\\_medium=search&utm\\_campaign=ongoing\\_internal](https://www.physiopedia.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.