

PubMed

Display Settings: Abstract



[Eur J Radiol](#). 1995 Dec 15;21(2):112-6.

## The use of color Doppler imaging for the assessment of sacroiliac joint stiffness: a study on embalmed human pelvises.

[Buyruk HM](#), [Stam HJ](#), [Snijders CJ](#), [Vleeming A](#), [Laméris JS](#), [Holland WP](#).

### Author information

#### Abstract

**PURPOSE:** The validity and reproducibility of an instrumented dynamic examination method to measure sacroiliac (SI) joint stiffness was tested in vitro.

**METHODS:** Four embalmed human female pelvises were excited by a **pelvic** vibrator. A color Doppler imaging (CDI) scanner was used to image the amplitude of vibrations at different sites of the pelvis. Vibrations were applied to the anterior superior iliac spines unilaterally and were received by CDI all over the ipsilateral SI region. Three different stability conditions were created in the SI joints: no intervention, screwed and ligaments cut. Test results were quantified by taking the minimum threshold levels of the bones. The relative difference of vibration intensity between ipsilateral ilium and sacrum at each stability condition is accepted as the stiffness level for the SI joint.

**RESULTS:** Statistics showed high reproducibility and significant differences between the stability conditions. Dynamic testing based on the use of vibrations provides visible and quantifiable intra- and inter-individual differences between SI joint stiffnesses.

**CONCLUSIONS:** This new method is objective and reproducible. Future in vivo application is promising since there are no technical and safety restrictions.

PMID: 8850504 [PubMed - indexed for MEDLINE]

### MeSH Terms

### LinkOut - more resources

---

## PubMed Commons

[PubMed Commons home](#)

0 comments

