



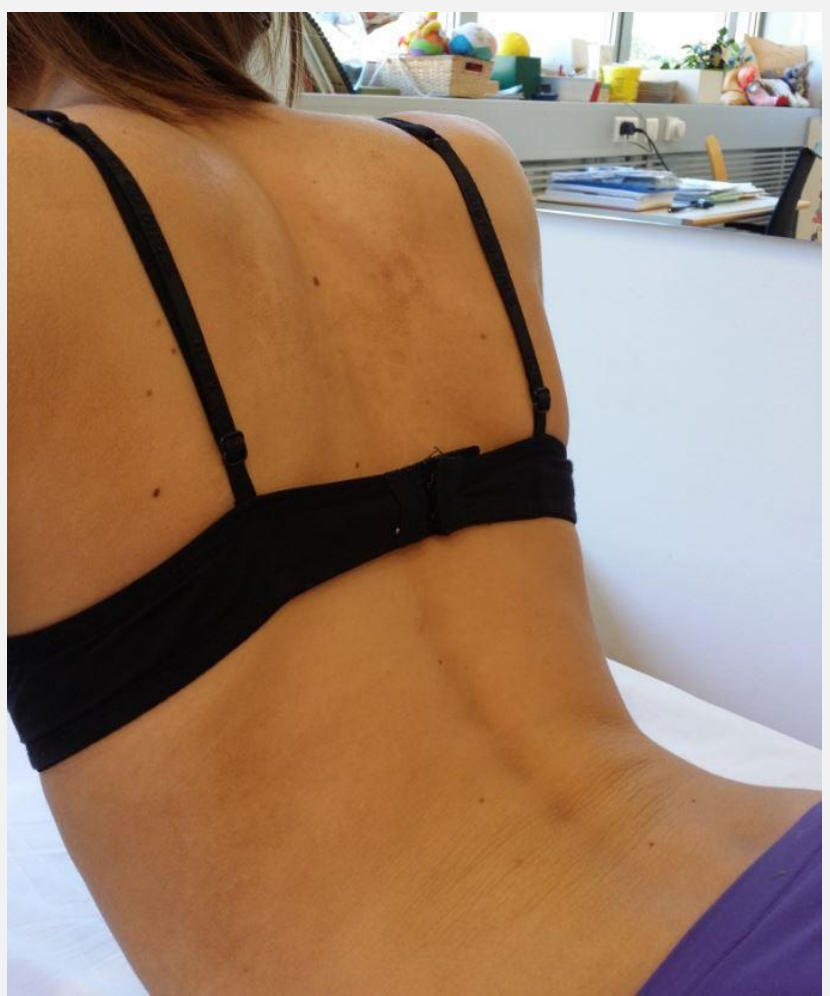
**Kyphosis Stiffness Test showed a very high reliability.**

**It helps clinicians to screen patients for the need of no treatment, exercises, or bracing**

## Kyphosis Stiffness Test: is it reliable?

### Conclusions

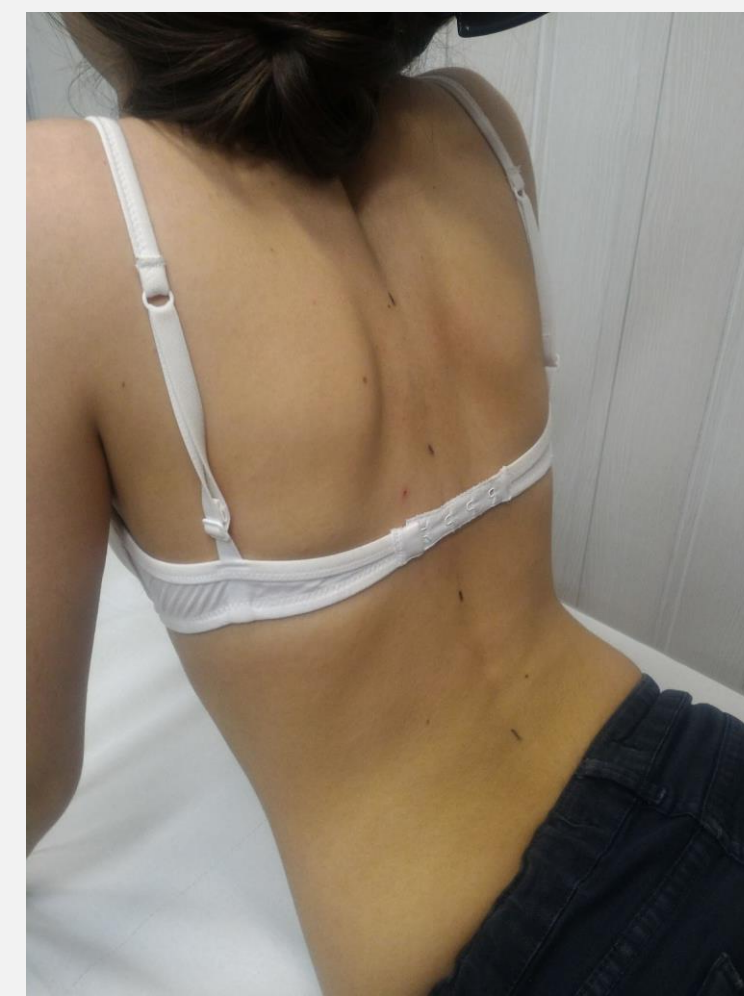
**KST** demonstrated a very strong **intra** and **inter-rater agreement**. These findings confirm that **KST** can be a highly **reliable clinical tool** for assessing thoracic **kyphosis flexibility**. Future studies should test the validity of the test.



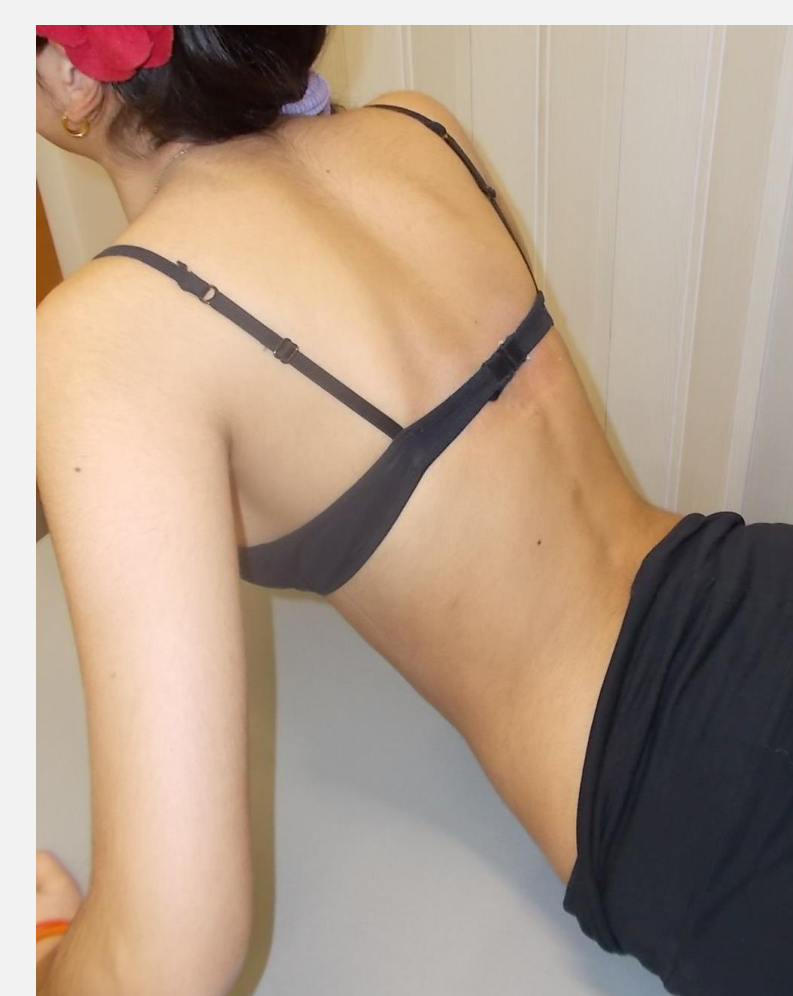
1. absent: kyphosis complete inversion



2. mild: kyphosis partial inversion



3. moderate: spine alignment



4. marked: kyphosis slightly reduced



5. severe: kyphosis unchanged



### Background and objective

- ✓ The gold standard exam to measure thoracic kyphosis is the Cobb angle on standing X-rays.
- ✓ In adolescents with hyperkyphosis evaluating the flexibility of the thoracic curve is essential for clinical decision-making and treatment planning.
- ✓ A clinical measure of thoracic kyphosis stiffness could reduce the need for X-rays and the associated risks of exposure to ionizing radiation.
- ✓ The objective was to verify the **reliability** (intra and inter-rater) of a new test to measure the **flexibility** of **thoracic hyperkyphosis**, the Kyphosis Stiffness Test (**KST**).

### Methods

#### Inclusion criteria:

- ✓ Diagnosis of hyperkyphosis (idiopathic or Scheuermann)
- ✓ Cobb angle (T3-T12) >50°
- ✓ Age 10-17

#### Statistics:

- ✓ Kendall's correlation coefficient

### Results

- ✓ **32** patients
- ✓ Age **15.6±1,6**
- ✓ kyphosis Cobb **59°±11°**
- ✓ **Intra-rater** reliability:  $\tau = 0.908$   $p < 0.001$
- ✓ **Inter-rater** reliability:  $\tau = 0.814$   $p < 0.001$



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