

1 New Tests for Early Screening of the So -Called Idiopathic 2 Scoliosis

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7 **Abstract**

8 Introductiona) New tests for scoliosisIn the diagnosis of so-called idiopathic scoliosis we should
9 use widely known old tests such as Adams Meyer test, symmetry or asymmetry of waist test,
10 but also new tests like -the side bending test for scoliosis (Lublin test), a test checking the
11 habit of standing 'at ease'-on the right versus on the left leg, Dunkan Elly -test to discover the
12 flexion contracture of hips making "anterior tilt of pelvis", pelvis rotation test (a new test
13 since 2006), the adduction of hips test (similar to Ober test).This "adductions test" is deciding
14 in new classification of scoliosis, explain character of scoliosis, place and character of curves,
15 stiffness or flexibility of spine. All tests are presented below.List of the old and new tests (Fig.

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17 **Index terms**— so-called idiopathic scoliosis. examination's tests.

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21 the left leg, Dunkan Ellytest to discover the flexion contracture of hips making "anterior tilt of pelvis", pelvis
22 rotation test (a new test since 2006), the adduction of hips test (similar to Ober test).This "adductions test" is
23 deciding in new classification of scoliosis, explain character of scoliosis, place and character of curves, stiffness or
24 flexibility of spine. All tests are presented below.

25 List of the old and new tests (Fig. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) and clinical changes enabling an early discovery
26 of scoliosis. The list of the new tests and symptoms (doctor's/examination questions and answers) are important
27 to recognize an early stage of scoliosis: Test of adduction of both hips (in extension position of joints -like the
28 Ober test). Important is also checking the flexion contracture of the hips and the external rotation contracture
29 of the right hip. There are three models of movements of right / left hip and in consequence three groups and four
types of scoliosis. Below we describe tests using for early discovery of scoliosis (Figures 1 -10 ¹



Figure 1:

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¹New Tests for Early Screening of the So -Called Idiopathic Scoliosis

Fig. 1

Test of adduction (passive) – in straight position of joints

Left hip adduction bigger Right hip adduction smaller



Difference in passive adduction

New test: Introduced in (1984) 1995 – 2007. Test of adduction of hips in straight position of joints. Right leg is more stable for standing and children with scoliosis have habit of stand 'at ease' on the right leg mostly or only.

Figure 2: Figures:

Adduction of hips test (A)

Fig. 2



Difference in active examination

Active examination. Right hip
– smaller adduction. Right leg
more stable during standing.

Active examination. Left hip
– bigger adduction. Left leg
not chosen for standing.

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Figure 3: Figure 1 :Figure 3 :Figure 5 :

Adduction of hips test (B)

Fig. 3



Difference in active examination

Other form of test. Examination more precise. Right hip – smaller adduction. Right leg more stable during standing.

Other form of test. Examination more sensible. Left hip – bigger adduction. Left leg not chosen for standing.

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Figure 4: Figure 7 :Figure 9 :

Fig. 4



Duncan-Ely test
or Stahelli test
or Thom test

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Figure 5: Figure 10 :

Kneeling test. Test for checking the „anterior tilt of pelvis”. Present flexion contracture of hips.

Fig. 5



Figure 6:

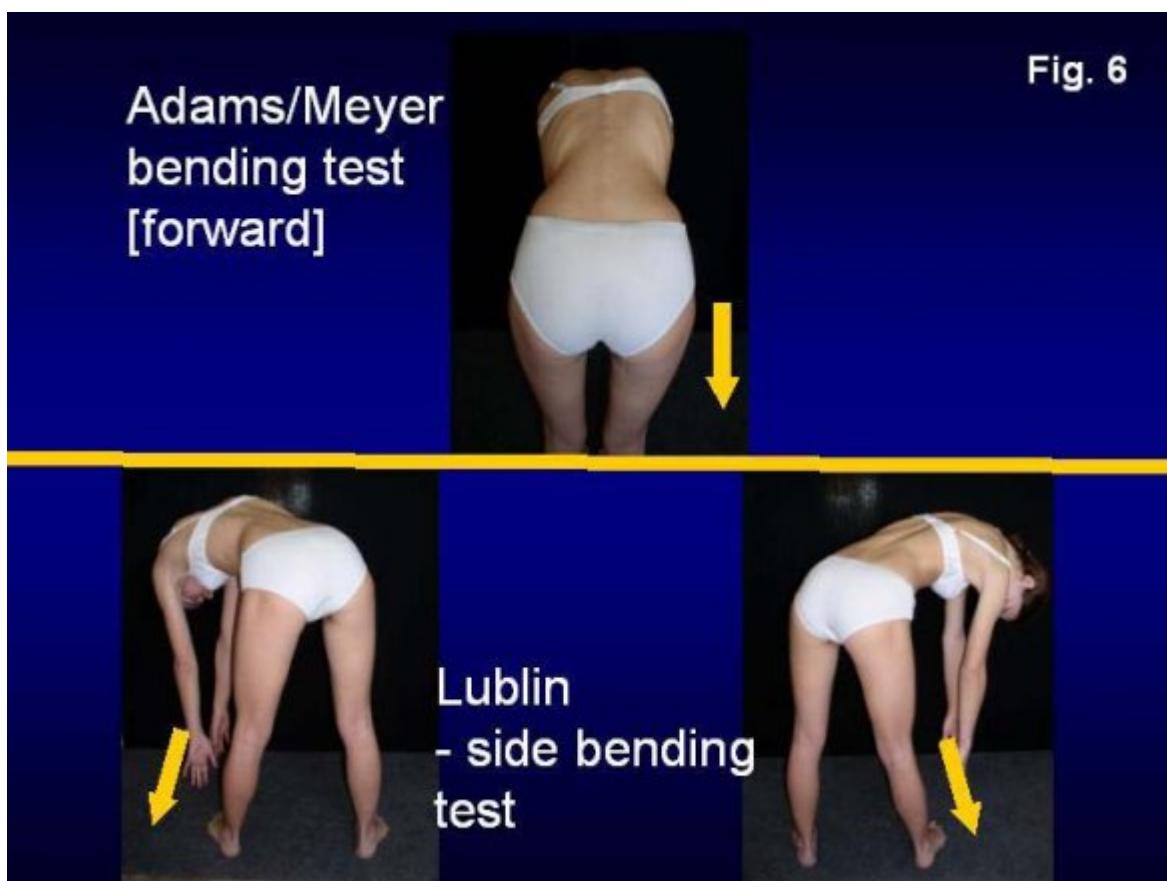


Figure 7:

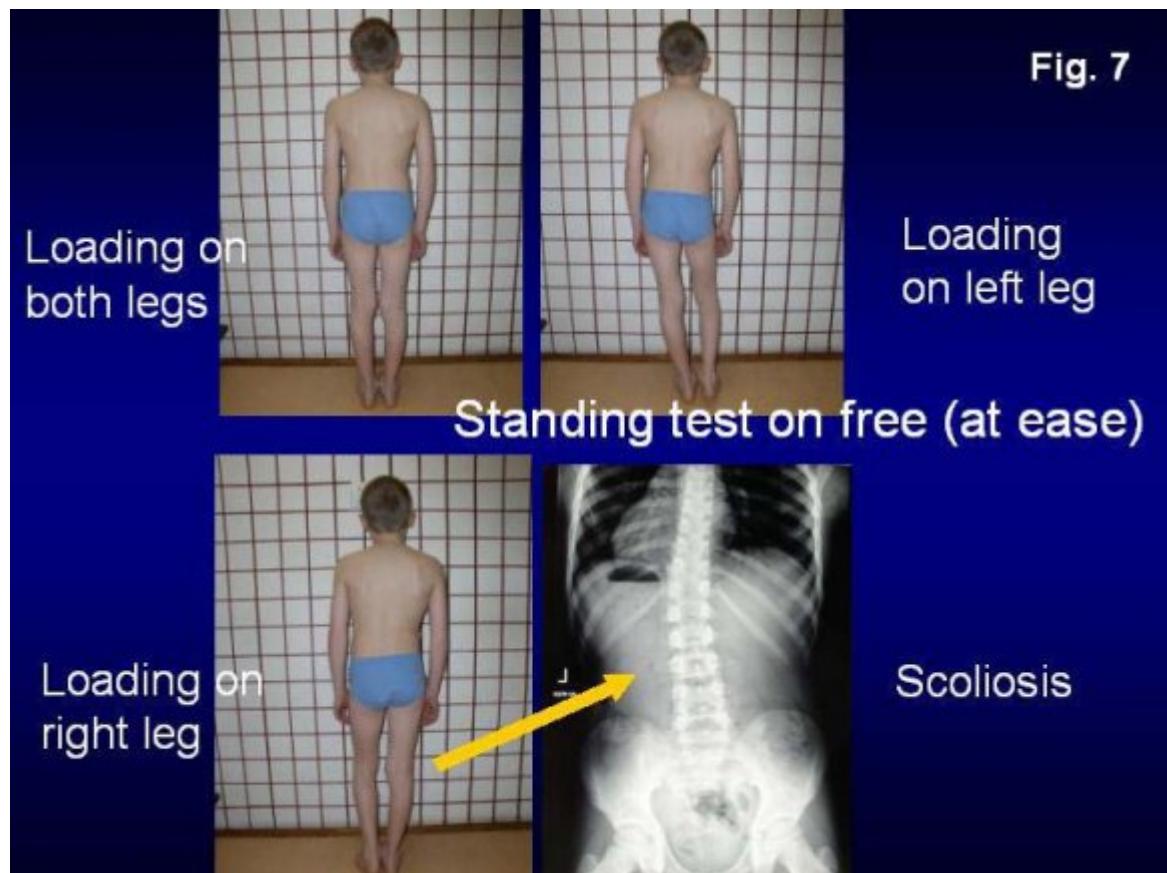


Figure 8:

Fig. 8

Hips / pelvis rotation test. Movement to the left smaller because of external contracture of right hip

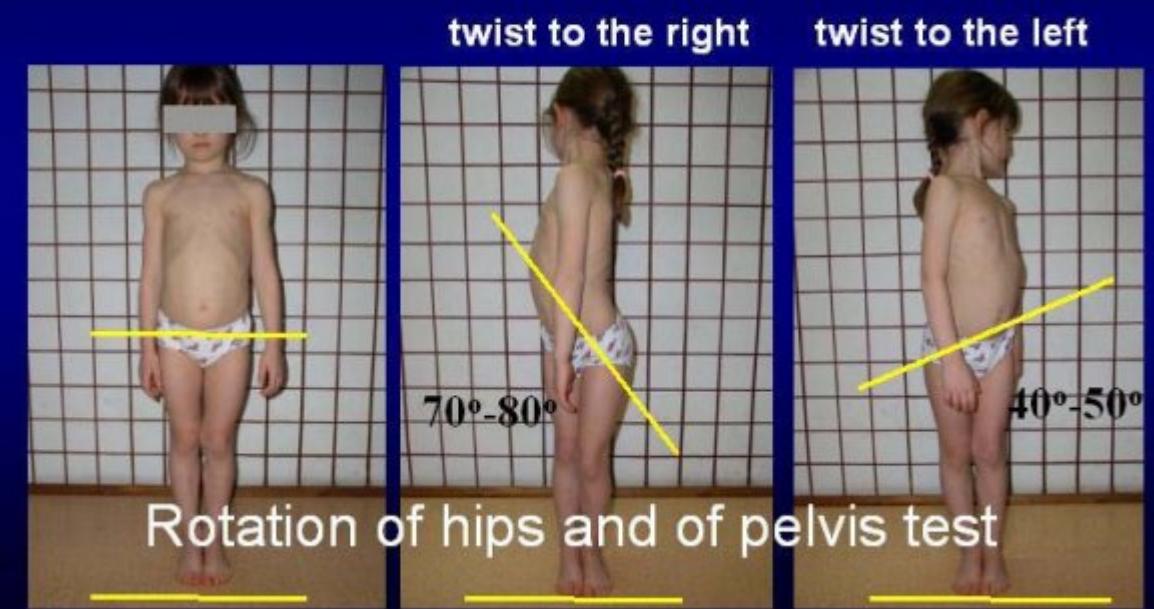


Figure 9:

4. Permanent standing 'at ease' test -checking the habit of standing -on the right versus on the left leg. The length of time (cumulative time) is deciding in children with scoliosis. The standing on the right leg is only one of causative influence in I epg and II/A & II/B epg groups.
5. The symmetry or asymmetry of the waist test (an old test, but still very important).
6. Presence of an illnesses (e.g. rickets). Rickets and general laxity of joints -increase oncoming of scoliosis.
7. Anatomical anomalies of the spine (spina biffida occulta, pectus infundibuliforme, rickets). If present, the proper development of the spine is endangered.
8. Body build type -asthenic and picnic (bad), athletic (good).
9. Willingness to participate in sports, if yes -good, if no -bad.

Additional causes of scoliosis and presented tests -connected with CNS (central nerve system) (also called Karski or Lublin test, it is a modified Adams/Meyer test -more sensible as Adams test. A specially -in "C" II/A scoliosis and II/B group of scoliosis show very early beginning of deformity.

3. Rotation movements of the body test (new test since 2006).

Figure 10: