

Scoliosis – from diagnosis to treatment

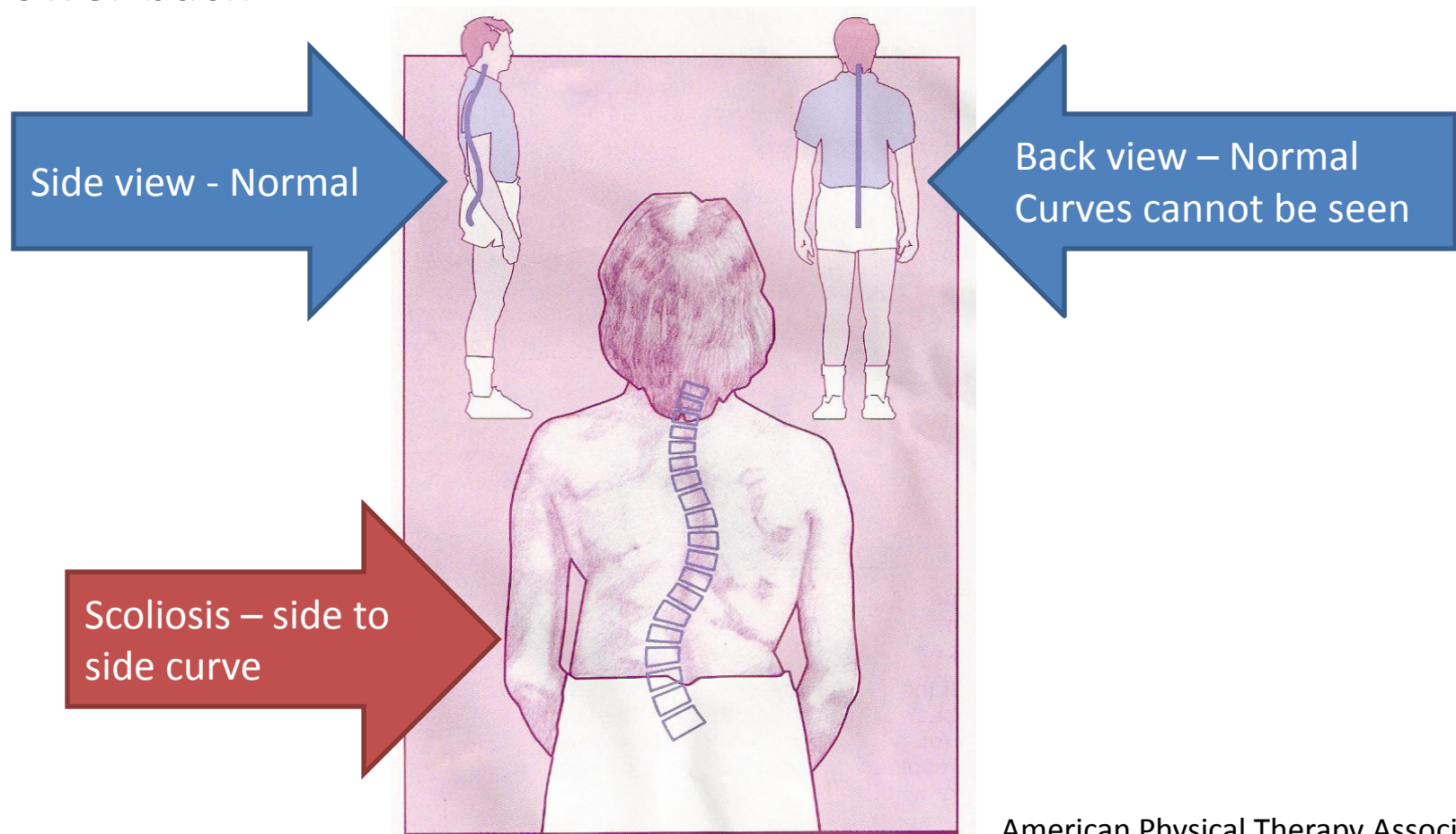
Dr. Arie Grober



What Scoliosis is?

The spine has 3 slight curves:

- Neck
- Upper back
- Lower back

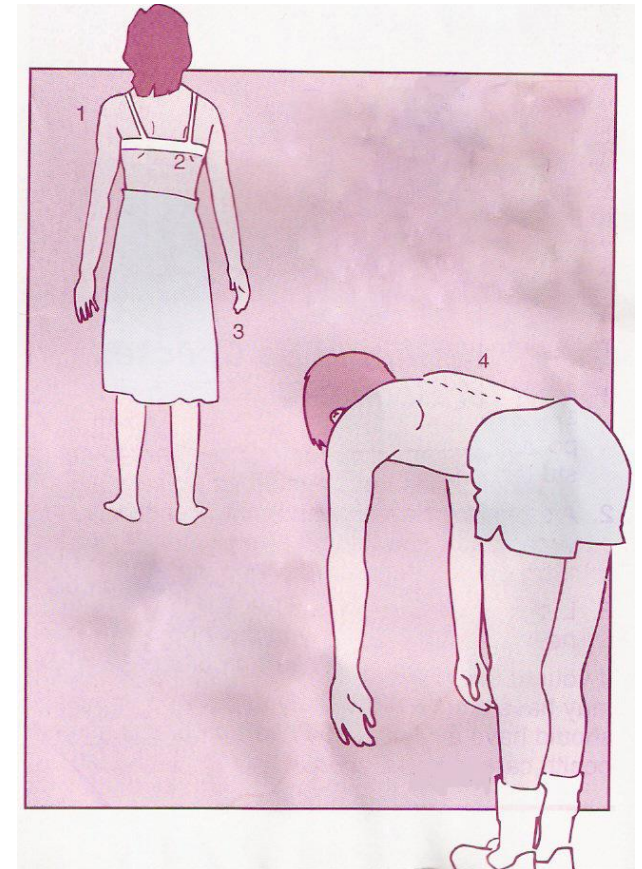


Early warning signs of Scoliosis

- Signs when wearing cloths - pantlegs or skirt hems may not be even.
- Checking at home should start from 9 years old every 6 months until the age of 14:
 1. Shoulders - is one shoulder higher than the other?
 2. Shoulder blades – does one shoulder blade stick out more than the other?
 3. Arms - does one arm rest farther from side of the body than the other arm?
 4. When bending over with back parallel to the floor – is there a bulge on one side of the back? – the most important test.

The curve may be very small – mild, bigger – moderate or Sharp – severe.

The causes for Scoliosis are not known.



The doctor's check-up

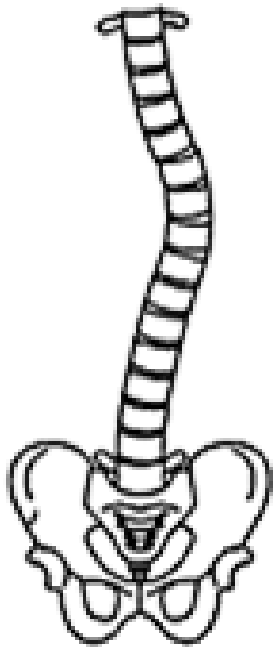
The forward-bending test – you should ask your patient to bend forward with the back parallel to the floor.

The back and ribs should be checked.

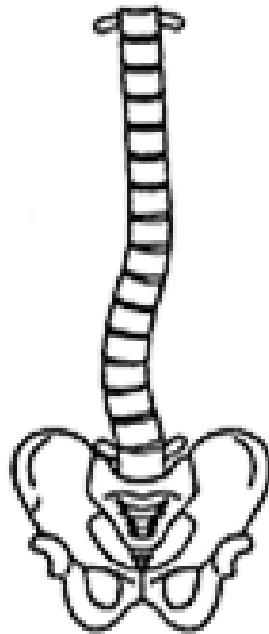


Types of Scoliosis

Curve Patterns



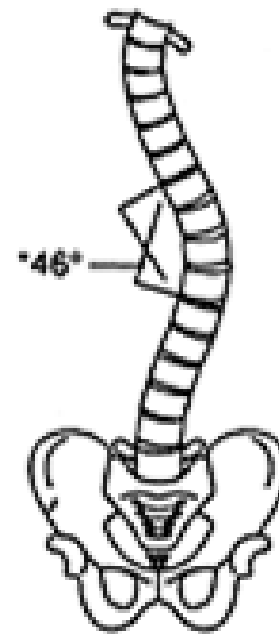
Thoracic



Lumbar



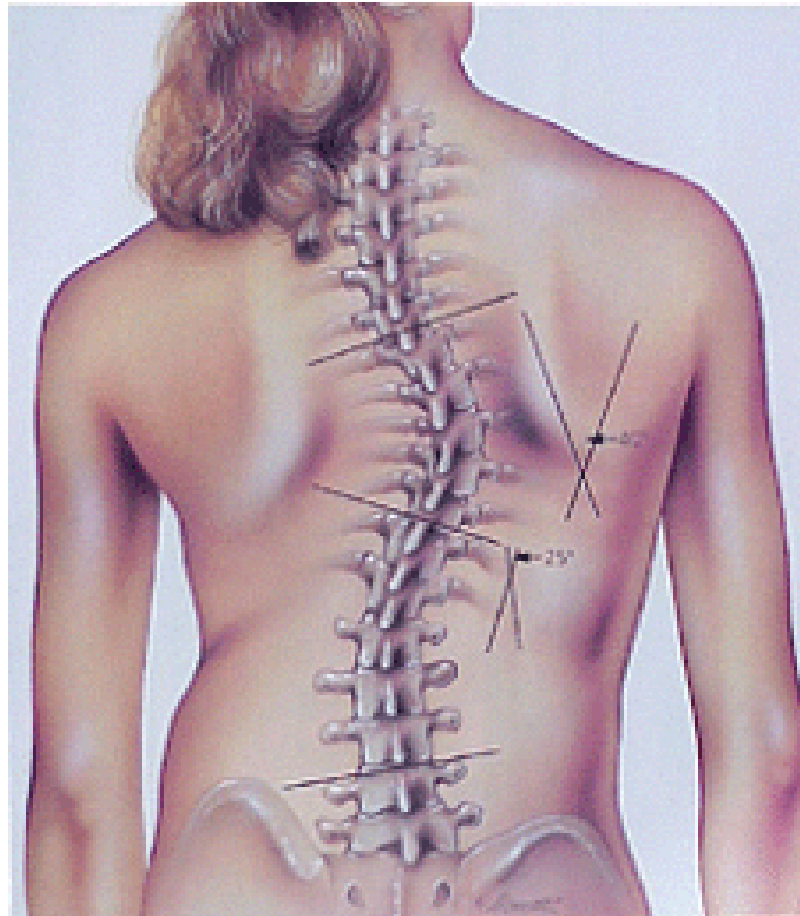
Thoracolumbar



Double

Diagnosis of scoliosis

X-ray of 13 years old female with Scoliosis



Degrees of curves

- Mild – up to 20° – conservative treatment
- Moderate – 20° - 40° wearing of brace
- Severe – more than 40° – should be operated



Conservative treatments in the market

| | |
|---|---|
| <p>Mild curves – may stay the same, get better by themselves or get worse – should be checked every 6 months.</p> | <ul style="list-style-type: none">• Exercise to improve flexibility and strengthen the muscles.• Most forms of treatment will work better on flexible spine. |
| <p>Moderate curves – can get worse rapidly</p> | <ul style="list-style-type: none">• Back brace or a scoliosis jacket together with exercise.• Electrical stimulation |
| <p>Severe curves</p> | <ul style="list-style-type: none">• May need surgery• Surgery can be avoided if the condition is detected and treated earlier |

Vertetrac + DBS – for treating of Scoliosis

- The D.B.S. (Dynamic Brace System) is a patented system used for the treatment of idiopathic juvenile, adolescent and adult scoliosis. Spinal curvature should not be diagnosed as scoliosis unless the curvature exceeds 10 degrees.
- Only curves greater than 10 degrees with structured changes including rotation should be diagnosed as idiopathic scoliosis. The curve progression should be considered only with a minimum increase of 5 degrees on two sequential X-rays.



Vertetrac and DBS – treatment of Scoliosis

- **In patients with curvatures of less than 20 degrees**, we apply the D.B.S. treatment only when the patient suffers from continued low-back pain. The treatment is recommended for 30 minutes once a day until the elimination of the pain (about 15 to 20 treatments). The control x-ray should be taken after 6 months.
- **In patients with a curve greater than 20 degrees when the scoliosis is progressive**, daily treatments of 30 minutes with D.B.S. should be administered until the maturity of the child is reached. The traction power of 10 - 20 kg. applied from each side should be determined individually and according to the age and the constitution of each patient.



Vertetrac and DBS – treatment of Scoliosis

- **In patients with curvatures between 20 – 30 degrees**, who have no pain or other complaints but have a tendency for progression we recommend treatment with the D.B.S. for 30 minutes, 2 or 3 times daily until maturity is reached and the patient remains under control for 2-3 years.
- **In patients with curvatures of 30-40 degrees and more**, the treatment with the D.B.S. is started immediately for 30 minutes, 3 times per day. Once maturity is reached, 1 or 2 half-hour treatments should be continued for a period of six months.
- In adult patient the DBS is used for pain relief only.
- X-rays should be taken every 3 months to follow-up and a discovery of a scoliosis progression greater than 5 degrees requires a resumption of 30-minute treatments 3 times a week until progression is halted and stability of situation is confirmed by 2 consecutive spinal x-ray.

