



Embrace the brace!

How does bracing work?

A scoliosis brace is a **custom corrective orthotic** device. Each brace is **uniquely designed** and **manufactured** to reduce **YOUR** cobb angle and rotation of **YOUR** spine.

When we design your brace:

We aim to treat the **3D biomechanics** of your scoliosis by the following:

- Apply **pressure, counter pressure** (3-point pressure system) and **expansion** in targeted areas to **reduce** the **Cobb angle** in the **frontal plane**.
- Attain **regional & local derotation** in the **transverse plane**.
- Ensure best possible **alignment & balance** in the **sagittal plane**.



The **wearing schedule** of the brace **depend** on the **severity** of the scoliotic curve and the **age** of the child. For **optimal results**, it is recommended that the brace should be worn for **16-23 hours a day**.

"Embrace the curves in life, for they make you uniquely beautiful!"

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YOVANKA TORRENTE & ASSOCIATES Scoliosis



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What is scoliosis?

In Greek the word scoliosis literally means “**to bend**” or “**to rotate**”. Scoliosis is a **three-dimensional curvature** of the spine, not only involving **side-to-side bending** but also **rotation**. The sideways curvature of the spine often appears as an “**S**” or “**C**” **shape curve**. Scoliosis most commonly occurs during growing years, between age 10 and the time an adolescent is fully grown.



Signs & symptoms to look for:



- **Uneven** shoulders
- **One shoulder blade** that appears more **prominent** than the other
- **Uneven** waist
- **One hip higher** than the other
- **One side** of the **rib cage** more **pronounced**

What causes scoliosis?

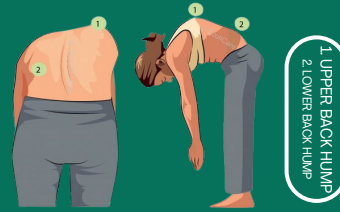
In most cases the cause for scoliosis is unknown, which is then described as **idiopathic scoliosis**. A small number of cases are caused by:

- Vertebral abnormalities present at birth (**Congenital scoliosis**)
- Neuromuscular disorders, such as cerebral palsy, muscular dystrophy or spina bifida (**Neuromuscular scoliosis**)
- Spinal cord injuries
- Infection of the spine

Scoliosis is not caused by bad posture!

How is scoliosis diagnosed?

The **Adam's forward bending test** is a reliable, easy test to do at home, that could indicate the possibility of a scoliotic curve. An **X-ray** will still need to be done to confirm the diagnosis and determine the severity of the curve.



How to perform Adam's forward bending test:

1. The spine needs to be visible
2. The patient bends forward at the waist until the back comes in the horizontal plane
3. Feet together with knees extended and arms hanging
4. The palms are held together
5. The forward bending should preferably be done till the back is flat, perpendicular to the legs and parallel to the ground
6. Parent/guardian looks from behind, along the horizontal plane of the vertebral column. Look out for significant asymmetry or a hump on the back - if any sign presents, it may suggest the presence of scoliosis.
7. If the test indicates possible scoliosis, further diagnostic tests like X-rays may be recommended for more detailed evaluation.

How do we treat scoliosis?

Scoliosis treatment **depends** on the **severity** of the condition and the **age** of the patient. The curve is measured to determine the **Cobb angle** which will allow for certain treatment:

- **OBSERVATION:** With a curve **below 20°** the child or adolescent can be monitored to ensure it isn't getting worse.
- **BRACING:** Curves **between 20° and 39°** are **ideal candidates** for bracing. With curves **between 40° and 49°** the patient is still within the range for **corrective bracing** but could possibly need to **consider surgical options** if the curve does not improve.
- **SURGERY:** Curves **greater than 50°** might not be ideal candidates for bracing and would most likely experience **more long-term success** with **surgical interventions** depending on age of initial diagnosis.
- **PHYSICAL THERAPY:** Physical therapy exercises can help **improve posture**, **strength**, and **flexibility**, contributing to **better spinal alignment**.

Scoliosis cannot be outgrown!

Scoliosis is normally a **progressive condition** and not something a child can outgrow. If left **untreated**, scoliosis can **worsen** and have serious long-term **physical** and **emotional complications**.