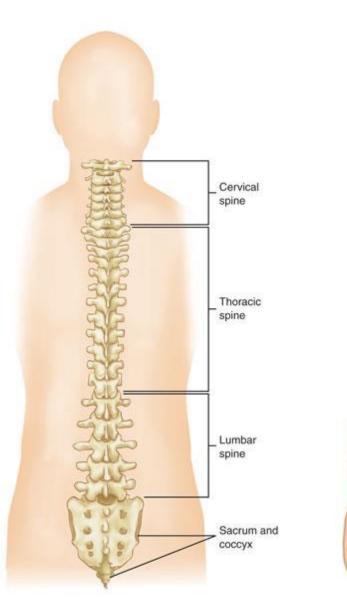
## Scoliosis

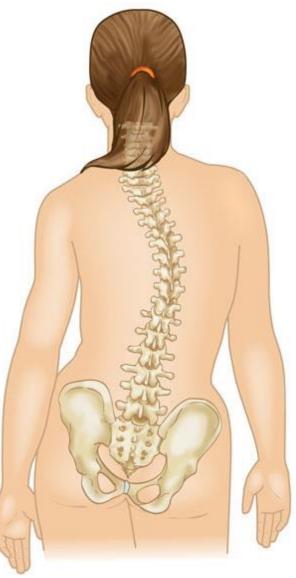




## What is Scoliosis?

- Scoliosis is the presence of an abnormal sideways curvature of the spine that can also be accompanied with spinal twisting.
- Scoliosis is not infectious or contagious and does not develop as a result of anything a child or parent did or didn't do.
- Scoliosis can occur at any age, however, it's commonly seen in children and adolescents around age 10 to 15.





### Causes of Scoliosis

### **Idiopathic Scoliosis**

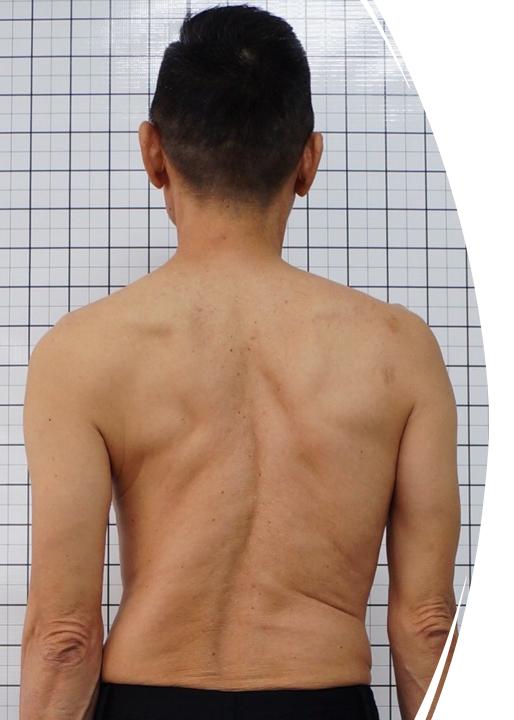
 Idiopathic scoliosis is a type of scoliosis where there is no known cause and accounts for approximately 80% of all cases. Usually diagnosed during puberty and with a higher prevalence in females, idiopathic scoliosis is the most common type of scoliosis. Research has has demonstrated that although scoliosis can run in families, it's not caused by anything the child or parent did or didn't do.

### **Congenital Scoliosis**

 Congenital scoliosis is a type of scoliosis that is present at birth and occurs due to malformation of one or more vertebrae while a baby is growing in the womb. Vertebral abnormalities, such as missing or unformed vertebrae, cause curvature of the spine because one area of the spinal column lengthens at a slower rate than the rest. Because these abnormalities are present at birth, congenital scoliosis is usually detected at a younger age than idiopathic scoliosis.

#### **Neuromuscular Scoliosis**

 Neuromuscular scoliosis is a type of scoliosis that develops as a result of a neurological or muscular condition, such as cerebral palsy, muscular dystrophy and spina bifida. While not all neuromuscular conditions will result in scoliosis, those that do are commonly caused by muscle imbalance and/or weakness. During times of growth, individuals will experience weakening of trunk muscles and an increase in spinal curvature, with the rate of progression increasing during periods of rapid growth, such as puberty.



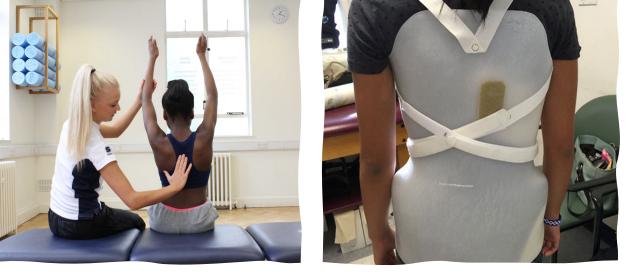
# Signs and Symptoms of Scoliosis

- A visibly curved spine
- Head is not centered directly above the pelvis
- Uneven shoulders, one or both shoulder blades may stick out
- Rib cages are at different heights and/or sticks out on one side
- One or both hips are raised or unusually high
- The appearance or texture of the skin overlying the spine changes (dimples, hairy patches, colour abnormalities)
- The entire body leans to one side

### Diagnosis of Scoliosis

- Scoliosis is usually confirmed through:
  - A physical examination
  - Imaging
    - $\circ$  X-ray
    - $\circ$  CT scan
    - $\circ$  MRI
- The curve is diagnosed and measured in terms of severity by the number of degrees.







# Treatment for Scoliosis

Factors that will influence treatment options:

- Spinal maturity is the patient's spine still growing and changing?
- Degree and extent of curvature how severe is the curve and how does it affect the patient's lifestyle?
- Location of curve according to some experts, thoracic curves are more likely to progress than curves in other regions of the spine.
- Possibility of curve progression patients who have large curves prior to their adolescent growth spurts are more likely to experience curve progression.

Possible treatment options:

- Observation/monitoring
- Casting/braces
- Physiotherapy (muscle stretching exercises, muscle strengthening exercises, hydrotherapy)
- Surgery

### Myth Busting

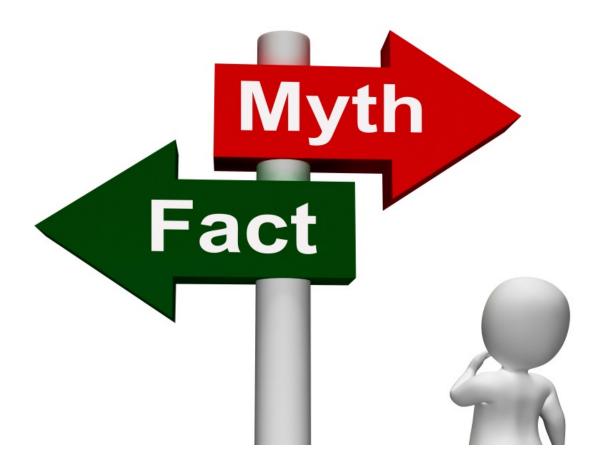
Myth: Having scoliosis means that a child cannot do sport or exercise. Fact: People should try to keep fit and active to keep the back muscles strong. Always check with a specialist about what sports can be done before, during, and after treatment.

Myth: Scoliosis will always require surgery.

**Fact**: In some cases surgery is the only option for large curves at high risk of progression. 2-3% of the population will have scoliosis and 10% of them may require surgery. However, many people simply need to have their spine checked regularly to make sure the curve is not getting bigger.

Myth: After surgery many people think that they cannot take part in activities such as horse riding, sky diving and contact sports.Fact: Most patients will be able to do these things after a time. However, it is important to check with your specialist to make sure you are back to full health before taking part in such activities.

Myth: Having scoliosis means you will be unable to have children or will have trouble with a normal birth.Fact: Scoliosis has no effect on conception and in most cases women have no problems with pregnancy and labour.



## Support Available



Scoliosis Association UK (SAUK) is a nationwide support organisation for scoliosis sufferers in the UK. They provide advice and information on the condition and aim to raise awareness. Their contact details and social below allow for people to easily access information about scoliosis, keep up to date with the latest news and gain instant friendly guidance and support.

- Website: www.sauk.org.uk
- Phone: 020 8964 1166
- Email: info@sauk.org.uk
- Facebook: Scoliosis Association UK
- Instagram: scoliosis\_association\_uk
- Twitter: @ScoliosisUK

### References

American Association of Neurological Surgeons (2023) *Scoliosis*. Available: https://www.aans.org/Patients/Neurosurgical-Conditions-and-Treatments/Scoliosis [Accessed: 12/06/2023]

British Scoliosis Society (2023) Available: https://britscoliosis.org.uk/home [Accessed: 12/06/2023]

NHS (2023) Scoliosis. Available:

https://www.nhs.uk/conditions/scoliosis/#:~:text=Scoliosis%20is%20where%20the%20spine,always %20needed%20if%20it%27s%20mild. [Accessed: 12/06/2023]

OrthoInfo (2020) *Introduction to Scoliosis*. Available: https://orthoinfo.aaos.org/en/diseases-- conditions/introduction-to-scoliosis/ [Accessed: 12/06/2023]

Scoliosis Association UK (2023) Available: https://sauk.org.uk [Accessed: 12/06/2023]