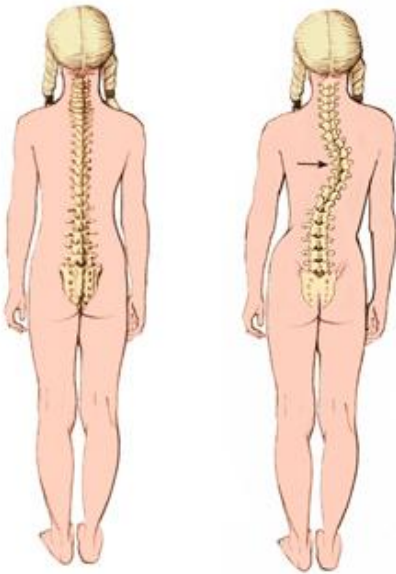


## SCOLIOSIS



**Scoliosis** (skoliosis – Gr.) – is a lateral curvature of the spine arising in children, forming a “C” or an “S” shape in the spine.

In the absence of treatment scoliosis progresses, is compounded (1 degree of scoliosis passes into 2 degrees and then – in scoliosis of 3 – 4 degrees) and persists for a lifetime.

The most common is the thoracic scoliosis. With the development the lumbar region is involved in the process and “S”-shape curvature is formed. Such scoliosis is called “combined”.

### How dangerous is scoliosis?

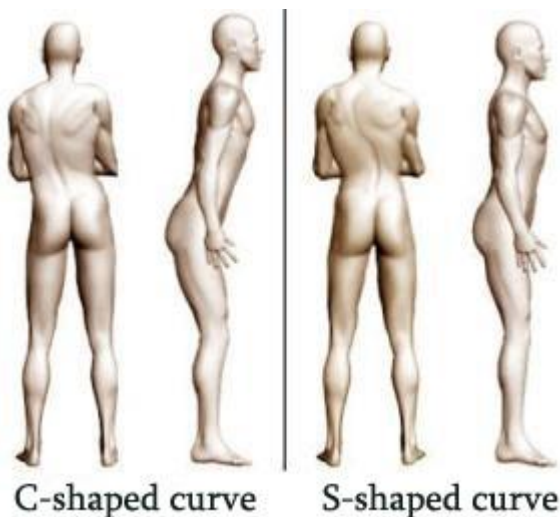
Scoliosis causes skewed of the pelvis, which creates an uneven burden on hip joints and leads to their deterioration with the development of [coxarthrosis](#).

This is one of the most common, but not the only consequence of scoliosis. Besides coxarthrosis, scoliosis causes dysfunction of internal organs, primarily the heart and lungs, gastrointestinal tract, violation of breathing, digestion and other problems.

### The main causes of scoliosis

Lasting change of posture, that creates an uneven burden on the spine is the main cause of scoliosis. The most important factor in the development of the disease is the spasms of back muscles, causing sustained skew of the spine and, consequently, its curvature (idiopathic scoliosis).

Simultaneously spasms and hypertonus of back muscles are the main cause of development of other diseases of the spine – [osteochondrosis](#) and then and its complications – protrusions and [intervertebral hernias \(spinal disc herniation\)](#). Thus, muscle spasms, causing osteochondrosis in adults, and scoliosis in children – are the main root of the problems of the spine.



### Classification of scoliosis

To determine the degree of scoliosis it is measured the angle between the line passing through the point of maximum deflection of the spine, and a line passing through the straight part of the spine.

#### **Grades are as follows:**

**Grade 1** signifies up to 10 percent ossification.

**Grade 2** signifies 11 to 25 percent ossification.

**Grade 3** signifies 26 to 50 percent ossification.

And finally, **Grade 4** signifies more than 50 percent ossification and deviation of the spine.

In the case of an “S”-shape curvature, the grade of scoliosis is determined by the arc with the largest deflection angle.

### Why does scoliosis arise precisely in children?

In the period of intensive growth, from 5 to 15 years, the development of the body is uneven, and the increasing in muscle mass can lag behind the increasing bone mass. As a result, the spine loses the necessary support and curves – idiopathic scoliosis arises (as opposed to innate).

Idiopathic scoliosis is found more frequently in girls. This applies to juvenile scoliosis (the ages of 4-6 years) and adolescent scoliosis (the ages of 10-14 years) as opposed to an infant or infantile scoliosis, which arises between the first and second years of life.

Precisely these types of scoliosis are the most widespread.

However, this does not mean that scoliosis – a disease of growth. Scoliosis can and should be avoided! This requires two conditions. The first – a timely diagnosis. This means that it is necessary pay attention to the very first, early signs of scoliosis – the slightest signs of the asymmetry of the body. Buttocks, shoulders, shoulder blades, ulnar fold of the child must be at the same height. If it not so, it's time to start the treatment of scoliosis.

The second condition – prophylaxis of scoliosis.

### **Treatment of scoliosis**

Practice shows that the scoliosis in children (1 and 2 grade) is quite successfully treated – which is why treatment should be started already in the childhood. If the time is missed, after bone skeleton is completely formed, the treatment of scoliosis is an almost impossible task.

*Treatment of scoliosis in our center includes a set of different procedures and therapeutic exercises.*

Exercises at a scoliosis are assigned individually, depending on the nature and degree of curvature. It is important not only to eliminate the curvature of the spine, but also to create the conditions to prevent the development of further complications.