

Objectives:

- Define Scoliosis.
- Describe how imaging is used to diagnose and treat scoliosis.

What is Scoliosis?

In the average person, the spine is normally straight down their back. In patients with scoliosis, the spine will have a lateral curvature. This means that the spine is not straight, but rather it curves to either the right or left side of the body. The spine will appear to have a “C” or “S” shape. Scoliosis is more common in young girls rather than boys, affecting roughly 2-3 percent of the population. Scoliosis can develop in infancy or early childhood however, the primary onset for this disorder is 10-15 years of age.

S16 Diagnostic Imaging for Patients with Scoliosis

How X-ray is Used to Diagnose Scoliosis

If a physician suspects scoliosis, they will order a series of x-rays to determine where the scoliosis is present. Typically, a two-view, anteroposterior and lateral cervical, thoracic, and lumbar spine series is ordered. While viewing the radiographs, physicians use what is called the “Cobb-Method” to determine the severity of scoliosis. Any curvature that is more than 10 degrees is considered a positive diagnosis. Significant curves range between 20-35 degrees, while severe curves reach 45-50 degrees.

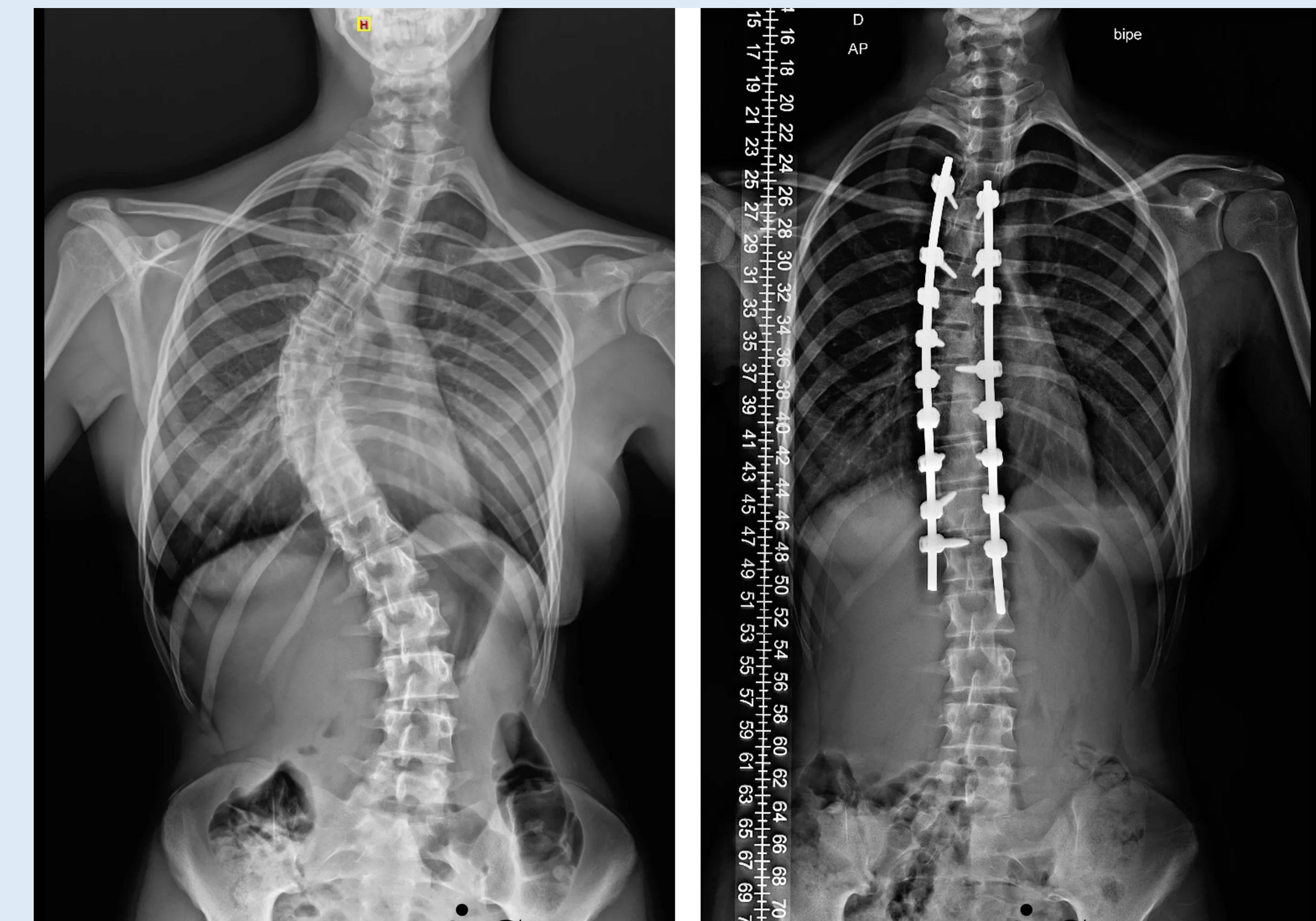


How Fluoroscopy is Used to Treat Scoliosis

Fluoroscopy is a live x-ray machine that is used in surgery to help surgeons locate the area they are operating on. For cases of scoliosis, fluoroscopy is used to help place the pins and rods used to fuse the spine together.

Treatments

- Observation: If the degree of scoliosis is mild, physicians will keep the patient under supervision. They will order routine x-rays to track if the curvature is worsening.
- Bracing: When a child is still growing, the physician will get them fit for a brace that fits snugly around the abdomen. The goal of this is to stop/slow the curvature in the spine.
- Surgery: In severe cases where bracing does not help, surgeons will fuse the affected spine together to fix the curvature.



Conclusion

In summary, scoliosis is an unnatural curvature of the spine. X-ray and Fluoroscopy have helped many patients with the diagnosis and treatment of scoliosis. While this disorder is a lifelong process for patients, with the use of imaging, patients and physicians can get a better understanding of how to control and monitor scoliosis.

