Scoliosis

Clinical examination findings
- Shoulder and waistline asymmetry
- Truncal shift
- Rib prominence on Adam's forward bend test

Less apparent in overweight and obese adolescents
Delayed diagnosis
Late referral to an orthopaedic surgeon for treatment

Effects of **Obesity** in adolescent idiopathic scoliosis (AIS)

Radiographic measurements
- Preoperative curve magnitude
- Preoperative thoracic kyphosis
- Lumbar lordosis at first follow-up
- Minor curve magnitude at last follow-up

Reported brace compliance was similar between the groups.

588 adolescents (11-17 year olds)
495 girls | 92 boys

454 Healthy weight (HW)
134 Overweight (OW)
71 Obese (OB)

Major curve magnitude
(At first presentation to orthopaedic surgeon)

43.9°
276 min

49.3°
307 min

50.4°
320 min

Surgical time (Posterior spinal fusion)

Postoperative complications
(a 2-year follow-up)

BMI%

≤84
HW
28.3%

≥85
OW
37.0%

≥95
OB
47.6%

Higher risk of postoperative complications
Larger curve magnitude
Increased surgical times

Outcomes of posterior spinal fusion in **obese** adolescents with AIS

Obese adolescents should be closely monitored for scoliosis to avoid delayed diagnosis and consequent referral for surgical treatment

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