

## ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS)

### AIS:

- Affects 1-3% of adolescent in the US
- Incidence similar among males and females
- Suggested genetic component but inheritance is variable
- No underlying neurologic or congenital cause

### DEFINITION:

Lateral curvature of the spine >10 degrees in a patient older than 10 years of age

### DIAGNOSTICS:

X-ray is the gold standard: AP/LAT full spine

MRI considered if there are abnormal examination findings including loss of reflexes, pain, a left thoracic curve or hyperkyphosis

**Levoscoliosis:** Apex of curve is to the left

**Dextroscoliosis:** Apex of curve is to the right



### Cobb angle:

*Used to measure the degree of curvature in the spine*

*Measured using the intersection of lines drawn on the most tilted vertebrae within the curve*

### CURVE PROGRESSION

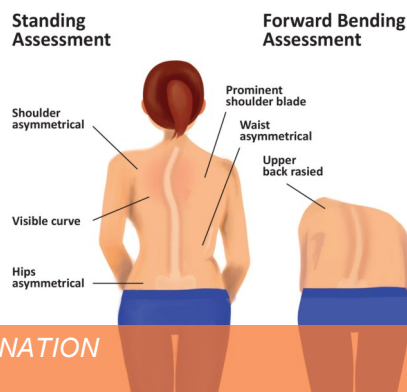
Increased likelihood for curve progression based on remaining skeletal growth or undiagnosed underlying reason (i.e. syrinx, chiari malformation)

### Curve severity:

Mild—10 to 24 degrees

Moderate—25-40 degrees

Severe— >40 degrees



### PHYSICAL EXAMINATION



### TREATMENT OPTIONS

Observation—XR spine every 6 months

TLSO Brace—reserved for curves >20-25 degrees

Surgery—reserved for curves >40 degrees