
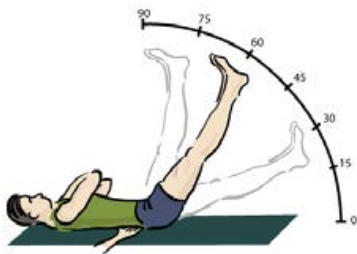
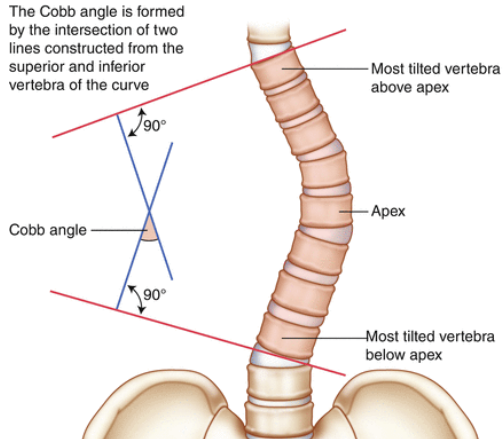
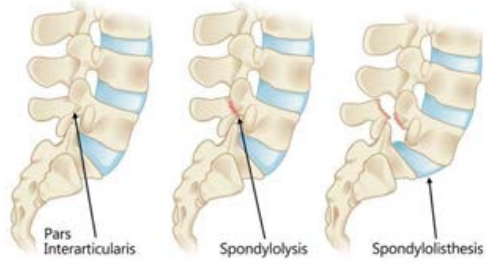


Spine	
Anatomy	
	
Exam Pearls + Special Tests	
<p>Straight leg raise: patient lying supine → flex at hip w/ knee straight (best if cervical spine flexed and ankle dorsiflexed) → assess for sciatic pain (sign of herniated disc)</p>	
	
Common Diagnoses	
Scoliosis	
<p>Description/ Mechanism</p> <ul style="list-style-type: none"> • Lateral curvature of the spine ≥ 10 degrees • Causes: idiopathic (80%) vs congenital vs. neuromuscular 	<p>The Cobb angle is formed by the intersection of two lines constructed from the superior and inferior vertebra of the curve</p> 
<p>Diagnosis</p> <ul style="list-style-type: none"> • Adam's forward bend test + inclinometer • Shoulder/torso asymmetry, rib prominence, paraspinal muscle prominence • XR: Cobb Angle ≥ 10 degrees 	
<p>Management</p> <ul style="list-style-type: none"> • ≤ 25 degrees → observation • 25-45 degrees + skeletal immaturity → bracing • >45 → consider surgical intervention 	

Spine continued on next page →

Spine	
Common Diagnoses	
Spondylolysis and Spondylolisthesis	
Description/ Mechanism	<ul style="list-style-type: none"> • Spondylolysis: bony defect in pars interarticularis (usually L4 and L5) • Spondylolisthesis: displacement of vertebral body relative to inferior vertebral body • Cause: repetitive microtrauma • Most common causes of back pain in children >10 years old; often in athletes engaged in sports w/ repetitive extension, flexion, and rotation 
Signs/ Symptoms	<ul style="list-style-type: none"> • Low back pain that worsens w/ activity, improves w/ rest • Spondylolisthesis: may have radicular or cauda equina symptoms
Diagnosis	<ul style="list-style-type: none"> • MRI is now study of choice • X Rays: poorly sensitive and do not assess acuity <ul style="list-style-type: none"> ▪ Might be required prior to MRI ▪ Standing AP, lateral, oblique views: visualize defect ▪ Flexion and extension views: assess stability
Management	<ul style="list-style-type: none"> • Spondylolysis and low grade spondylolisthesis → conservative (rest from sports for ≥ 3 months, NSAIDs, PT, back bracing) • Higher grade spondylolisthesis (or failure of conservative management) → consider surgical intervention
Spondyloarthropathies	
Signs/ Symptoms	<ul style="list-style-type: none"> • Insidious onset • Often misdiagnosed w/ recurrent strains/sprains • Pain worse at night, improves w/ activity
Mild Traumatic Brain Injury (Concussion) & Graduated Return-to-Sport Program	
Refer to ED Mild TBI section on page 257	