

Spinal deformity corrections: The State of the Art

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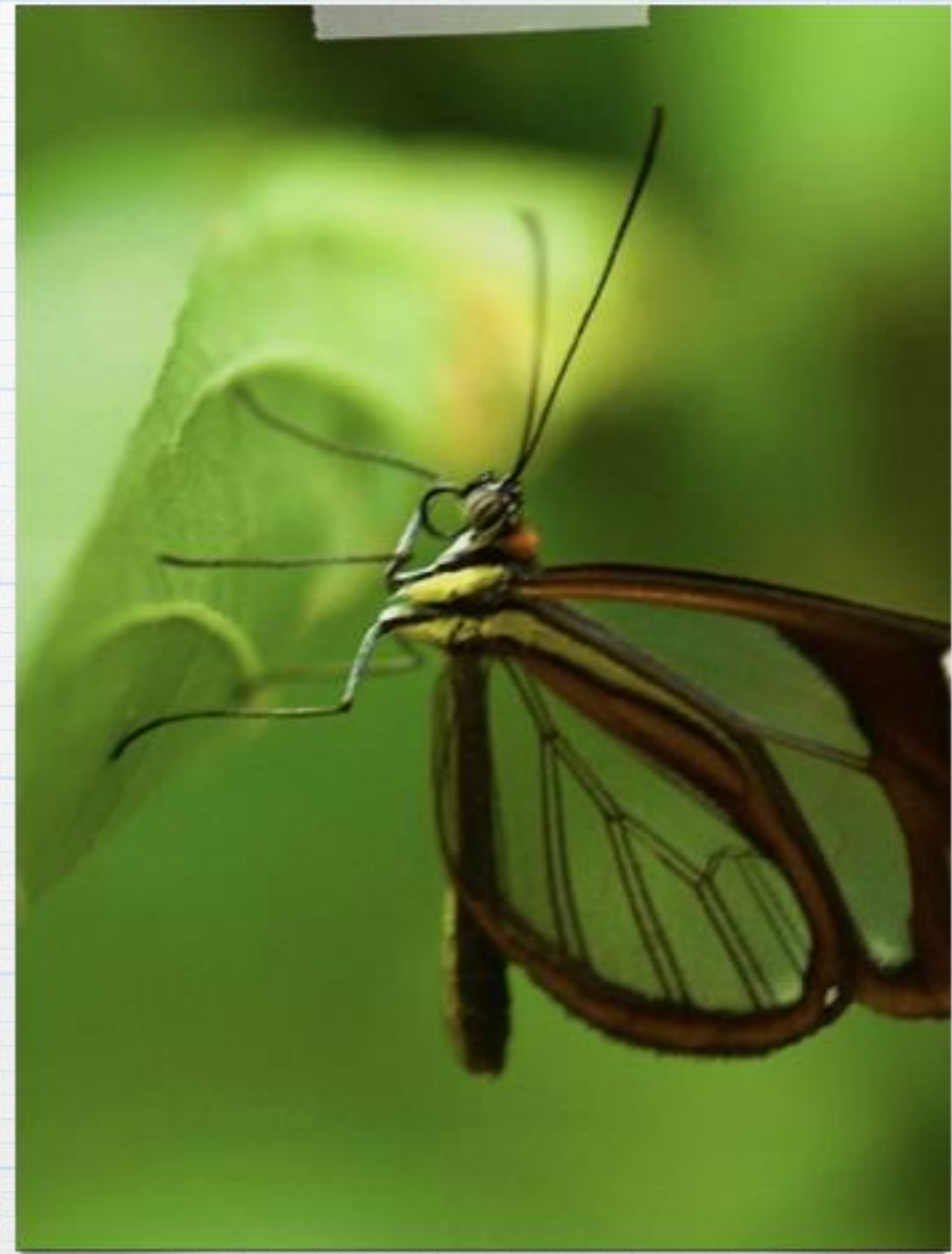
MBBS, MS (Orth), D Orth, MCh (Orth), FRCS (Tr & Orth)
Consultant Spine Surgeon

The Royal Orthopaedic Hospital
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Spinal deformities

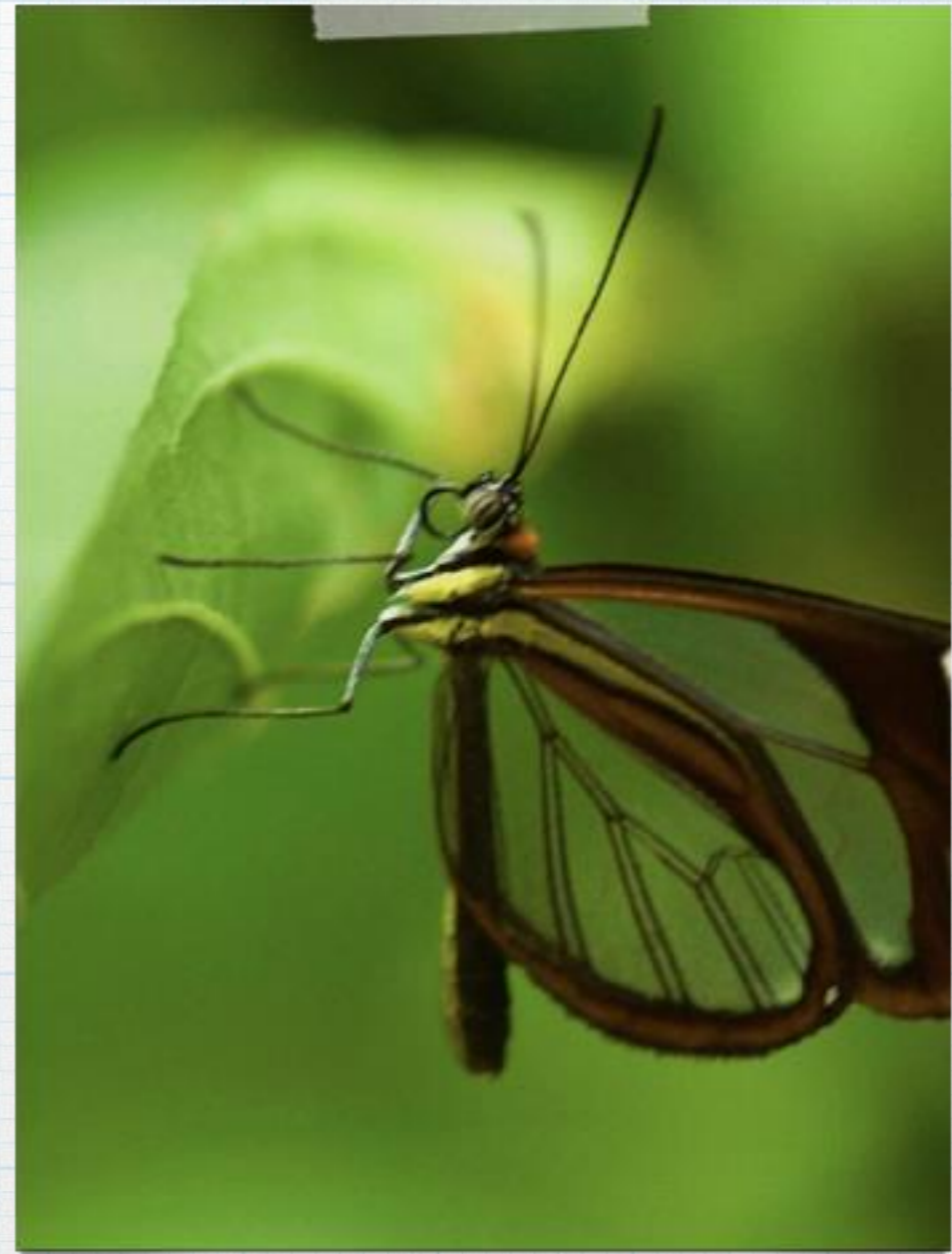
- * Deformity types
 - * Congenital
 - * Idiopathic
- * Age of presentation
 - * young
 - * adolescent
 - * adult

Early onset scoliosis



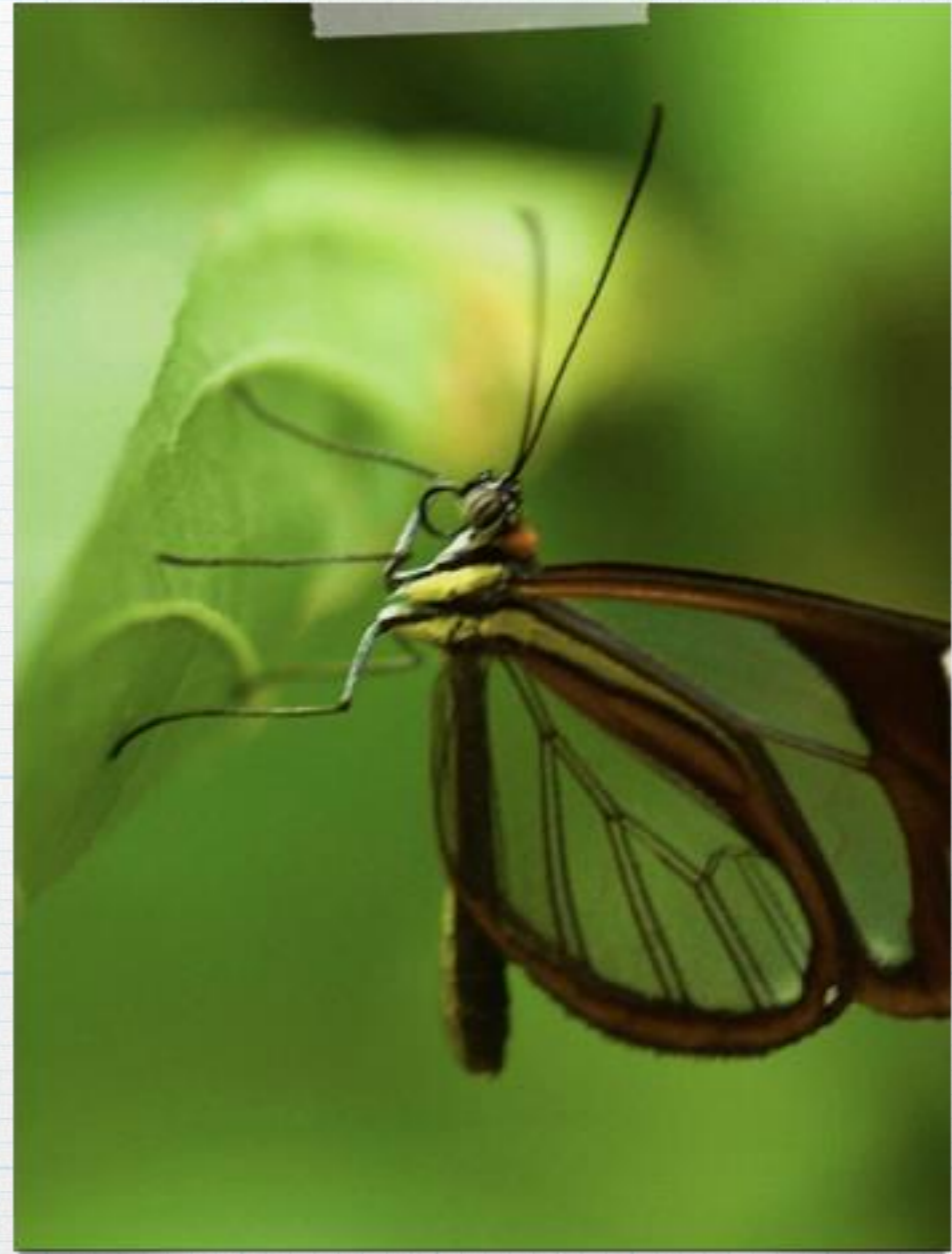
EOS: issues

- * Lung growth
- * Trunk growth
- * Thoracic volume
- * Secondary effects of scoliosis



EOS: assessing the magnitude

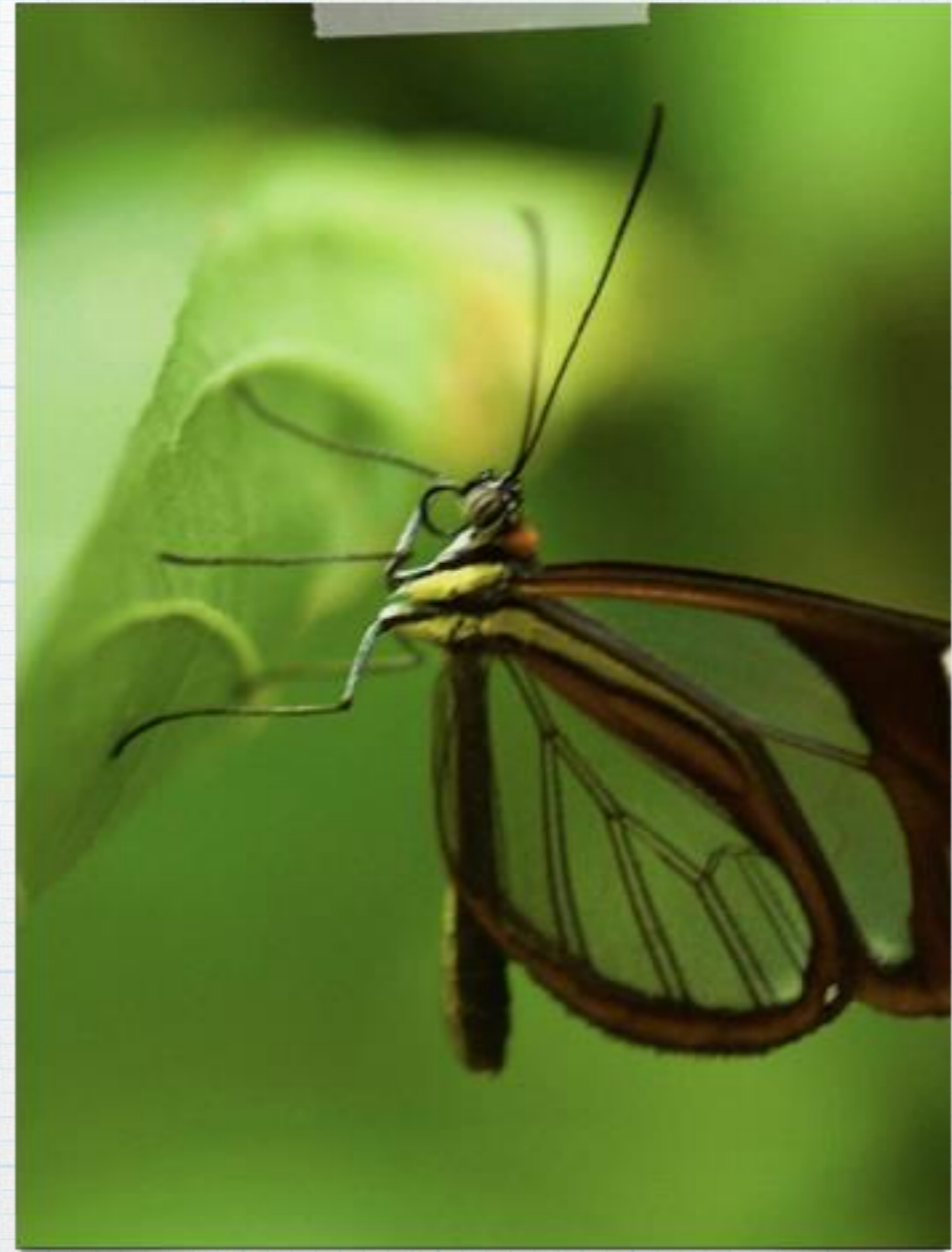
- * T1 S1 length
- * Lung function
- * Growth predictions
- * Cobb angles



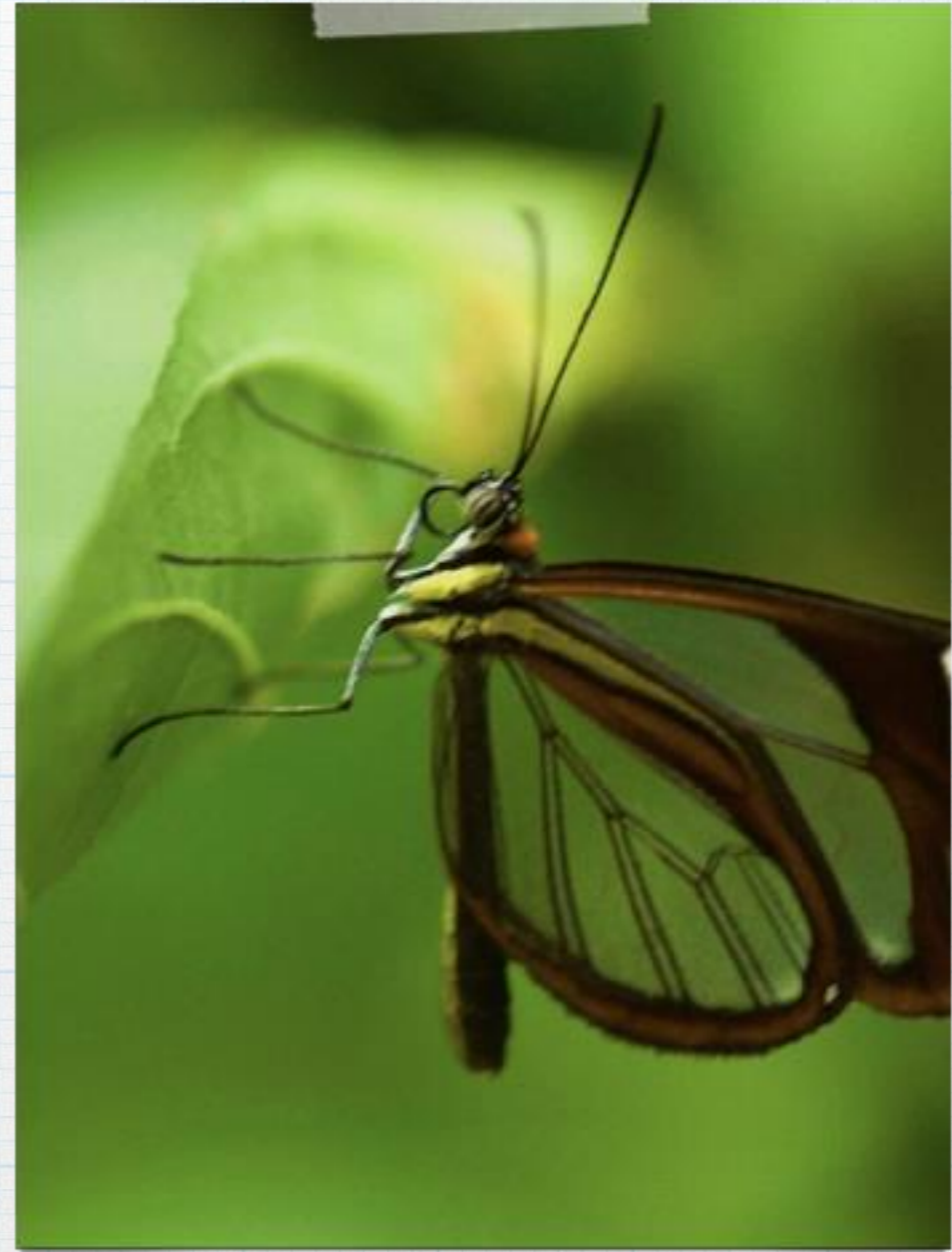
EOS: traditional growing rods



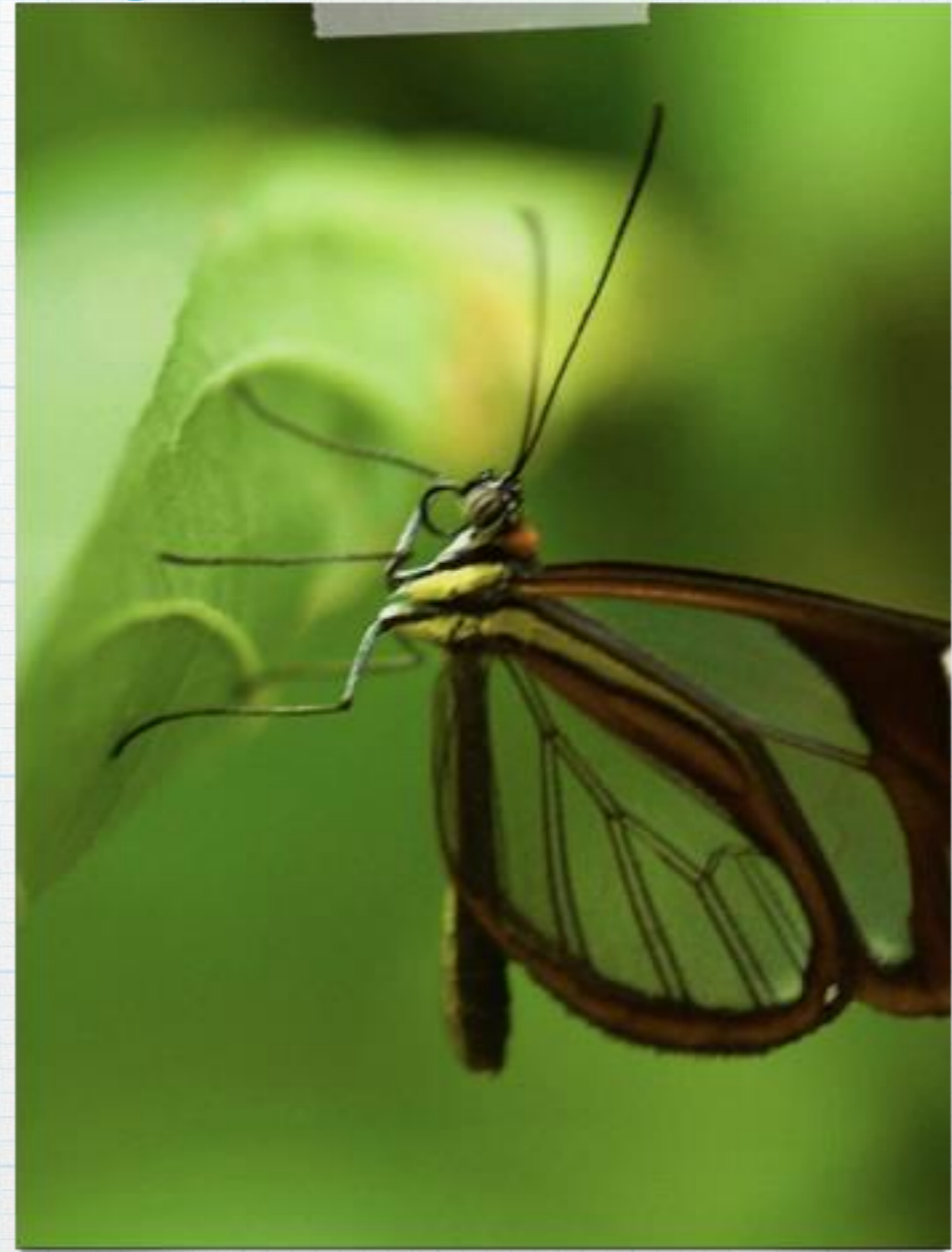
EOS: MAGEC



EOS: SHILLA

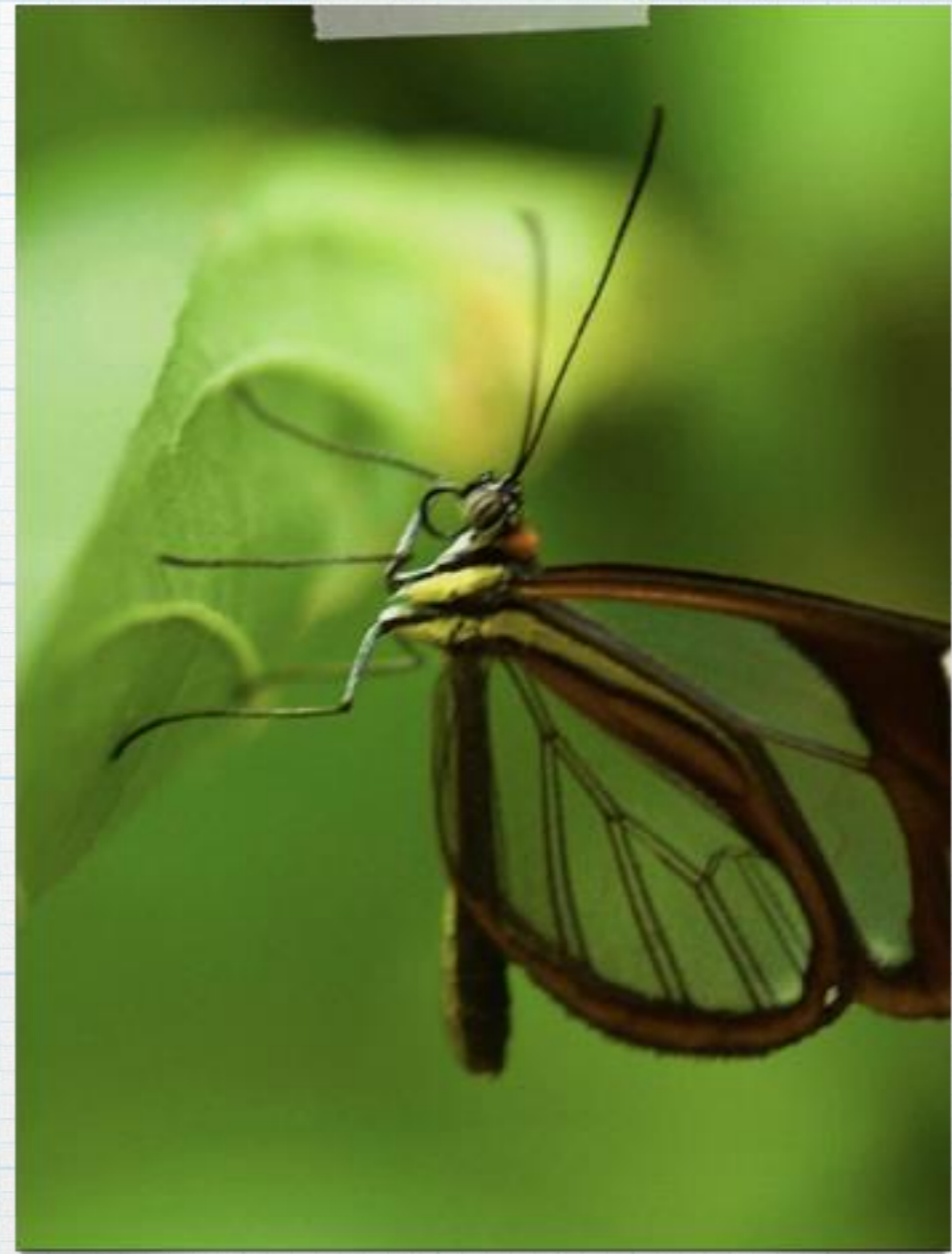


EOS: Vertebral body tethering



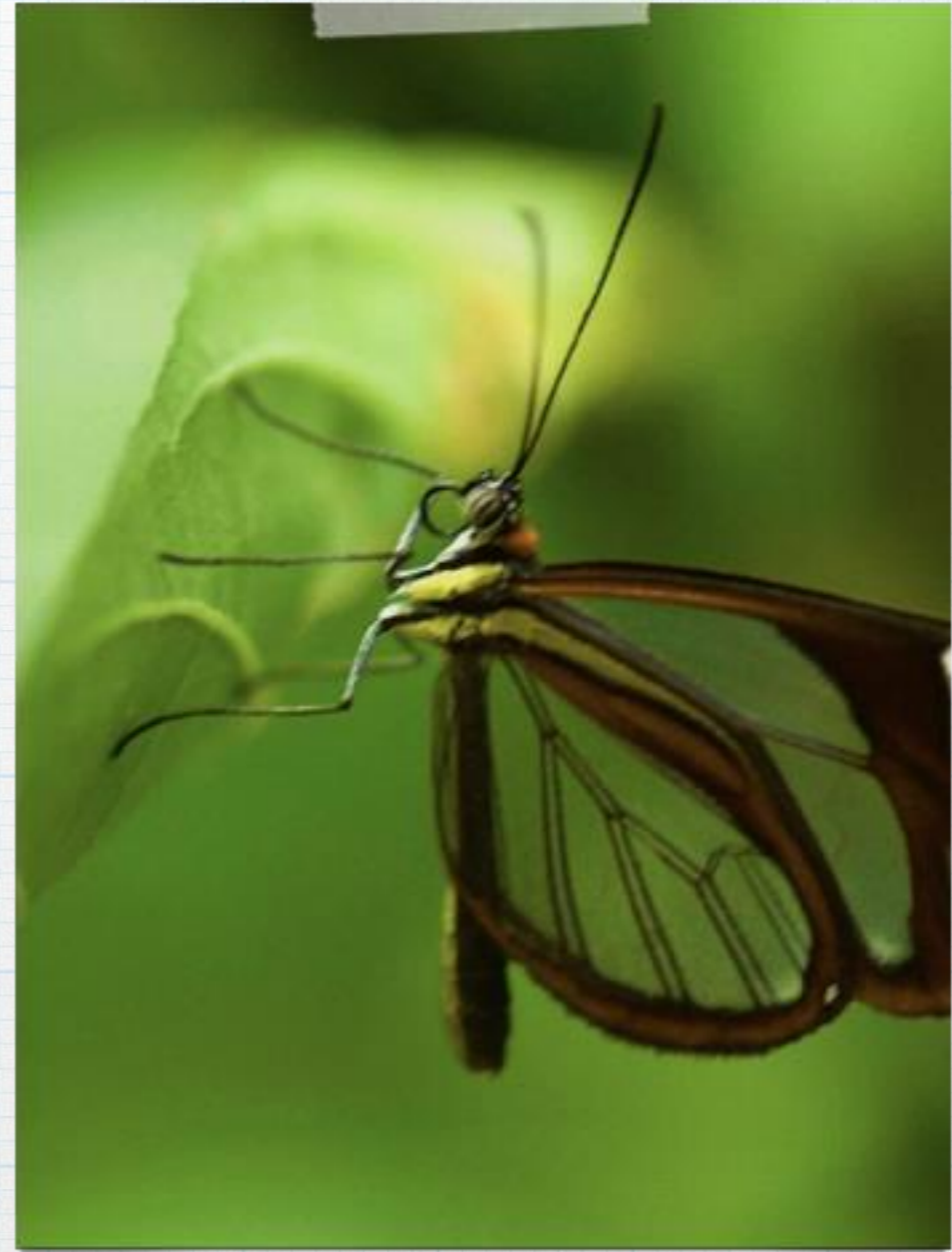
Adolescent idiopathic scoliosis

- * 3 d corrections
- * Shorter fusions
- * Radiation exposure



Adolescent idiopathic scoliosis

- * Better corrections
- * Anterior surgery
- * Intra-op CT
- * Low dose X-rays

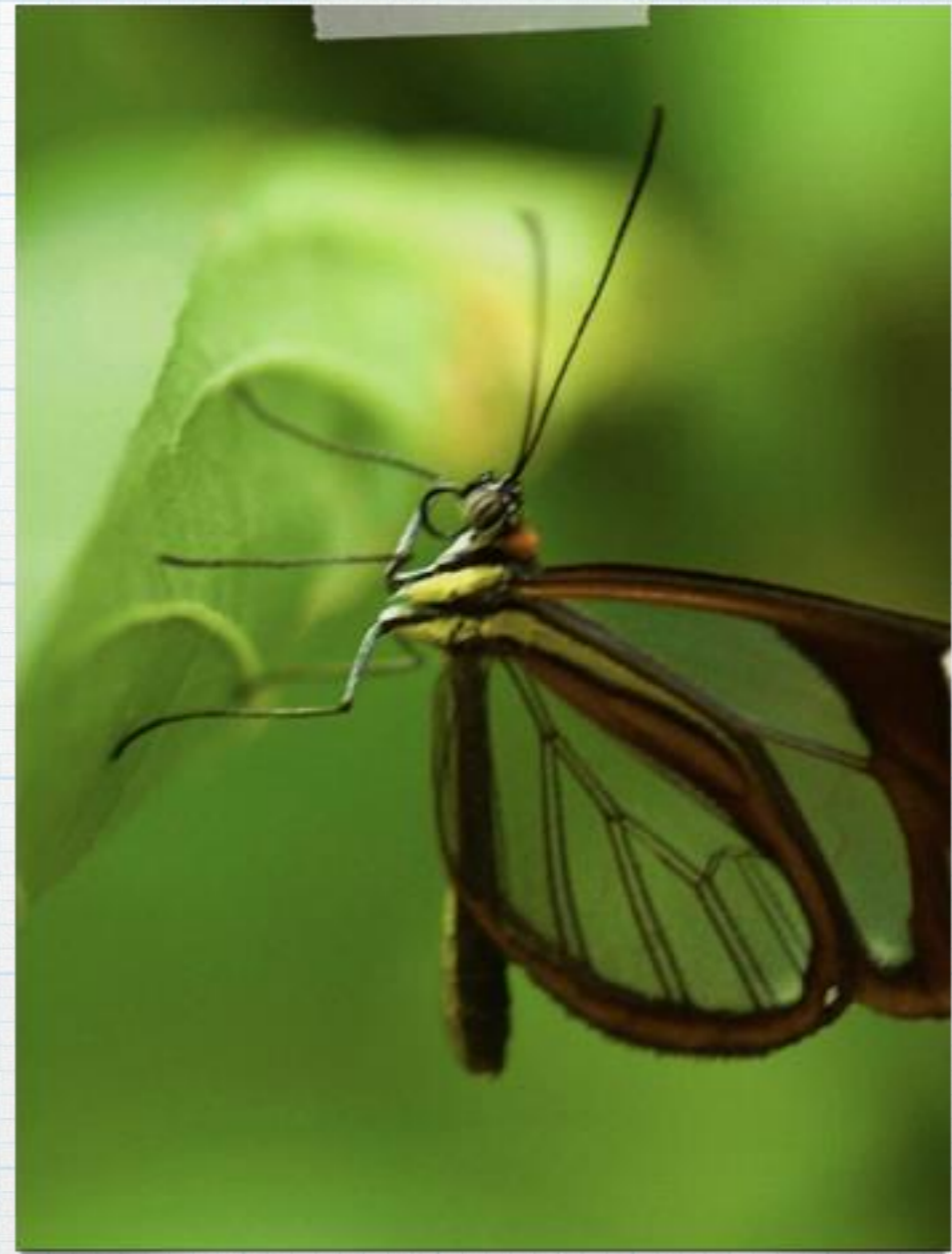


Adult spinal deformity



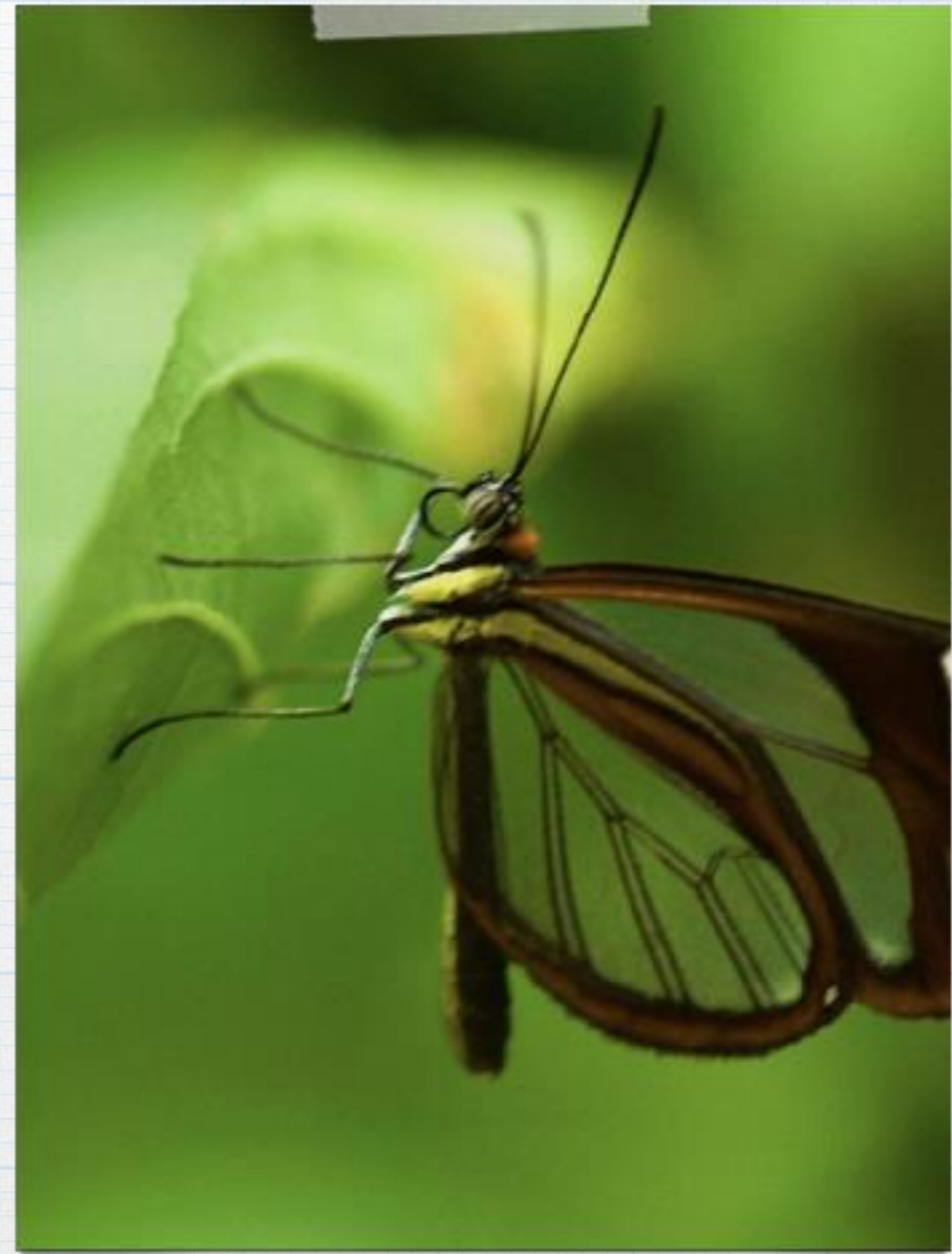
ASD: issues

- * Medical co-morbidities
- * Bone density
- * Indications for surgery
- * Economic impact



ASD: issues

- * MDT set up
- * Robust conservative options
- * Clarity on surgical goals
- * Realistic expectations



ASD: surgery

- * How much?
- * Institutional backup
- * Compliactions

