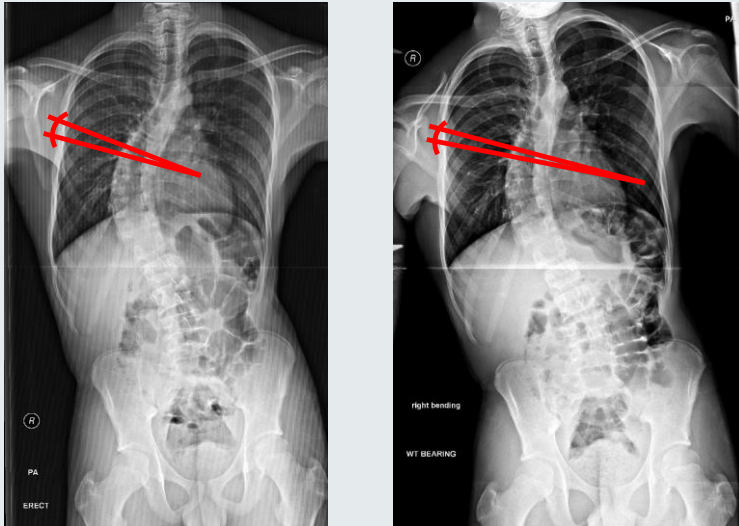


Towards Automated Spine Mobility Quantification: A Locally Rigid CT to X-ray Registration Framework

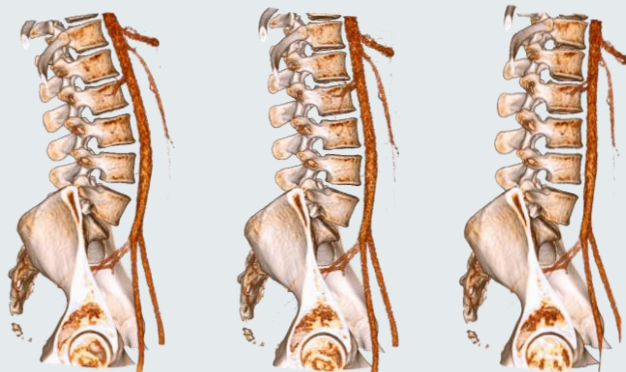
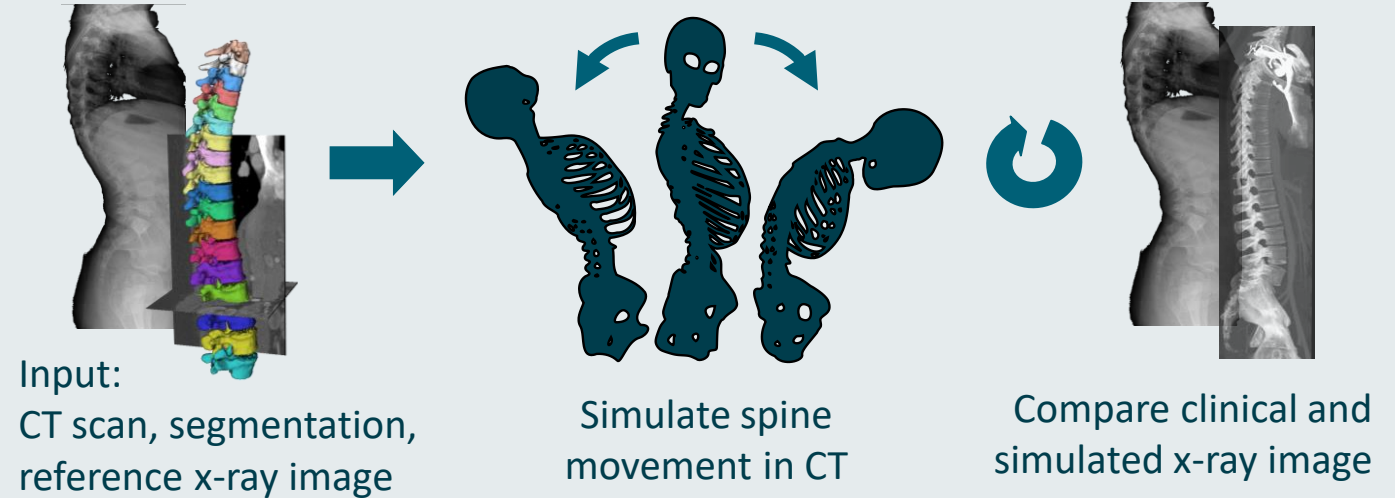
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Spine Mobility Quantification



CT – x-ray Spine Registration Pipeline



Poly-rigid Transformation Model

- Vertebrae are kept rigid, while overall deformable transformation
- Regulariser promote anatomically reasonable movements
- Model parameters yield relevant angles between vertebrae → Spine Mobility Quantification

Proof of Concept:

- 3D-2D spine registration framework
- Extraction of useful parameters from spine model