

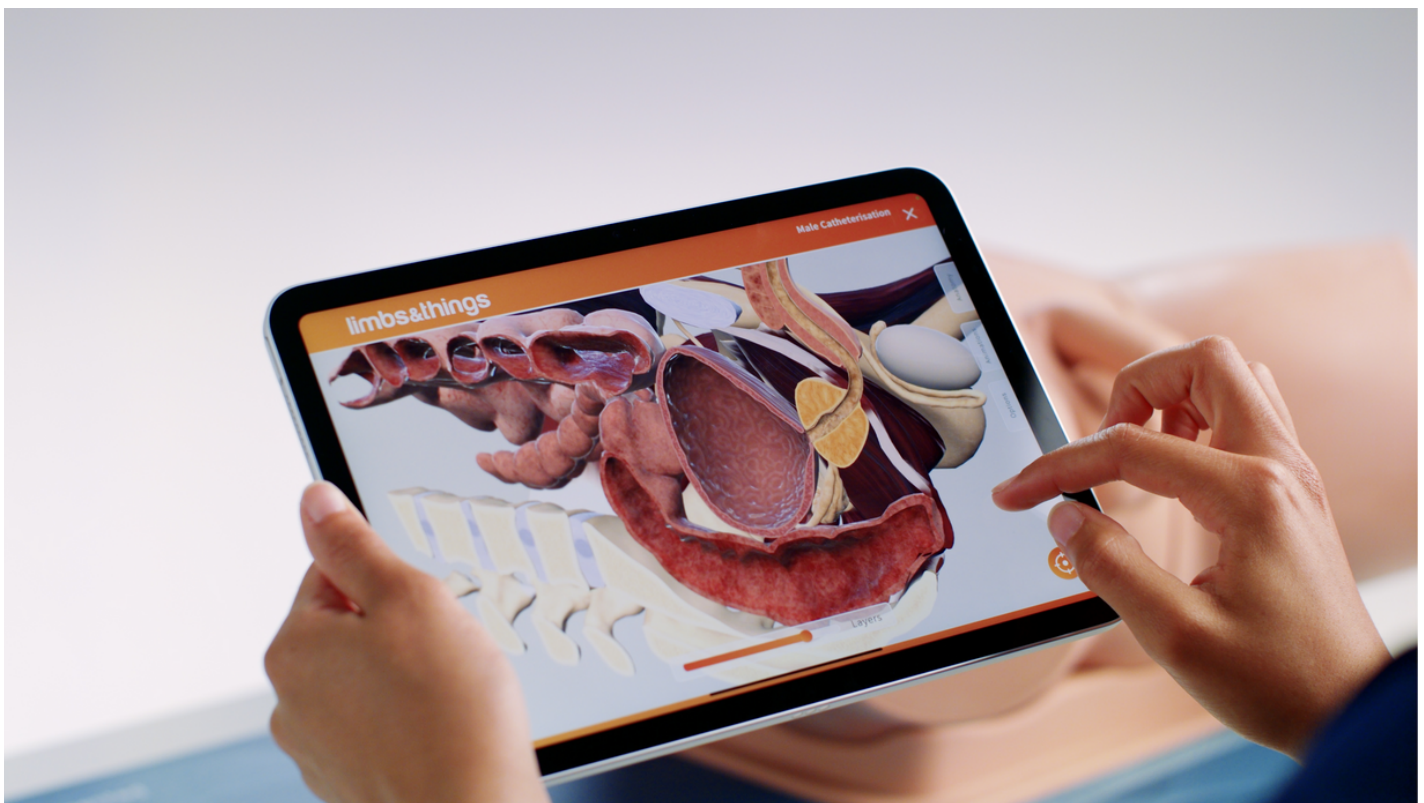
LIMBS&THINGS ART

For this entry, we would like to enter a body of work: the Limbs&Things ART app. This app is a completely new concept, adding Interactive 3D and Augmented Reality to existing physical task trainers. A student can revise and visualise 3D anatomy using the interactive environment to spin around the model and its clinical variations and animations. By using the ART mat, the student can then see the anatomy superimposed on top of the training model. This way, students can visualise the anatomy under the skin whilst or before performing a procedure, adding to their visuospatial understanding of anatomy and procedures.

The app can be downloaded **for free**, and uses your own Apple or Android device. More information can be found here: <https://limbsandthings.com/art>

The app was created in Unity, with meshes and animations created in ZBrush, Maya and Substance Painter.

Below are screenshots of the app and anatomy, as well as some links to videos showing how it works. I would encourage the jury to try it for yourself!



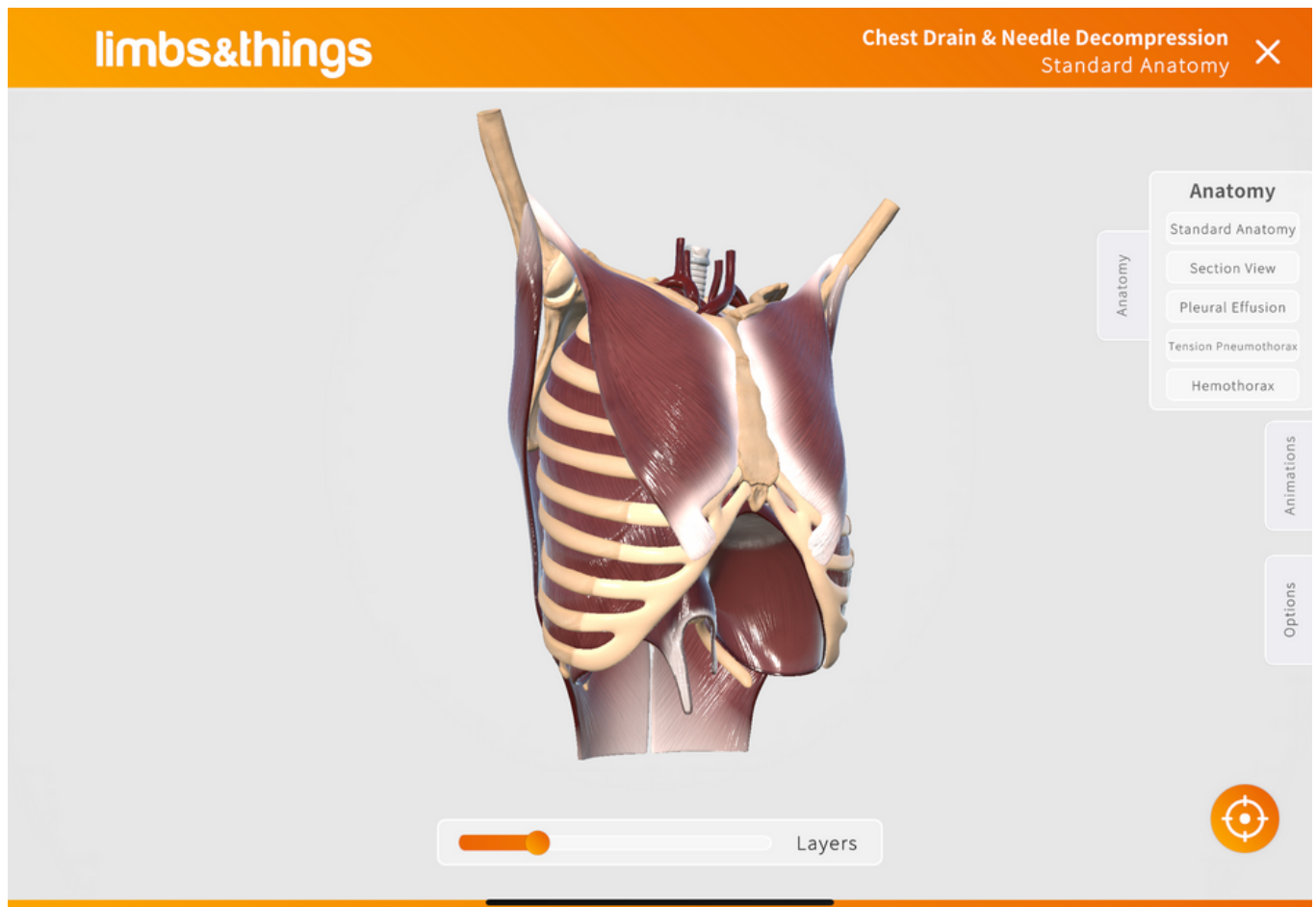


Image 1: 3D Interactive, standard anatomy

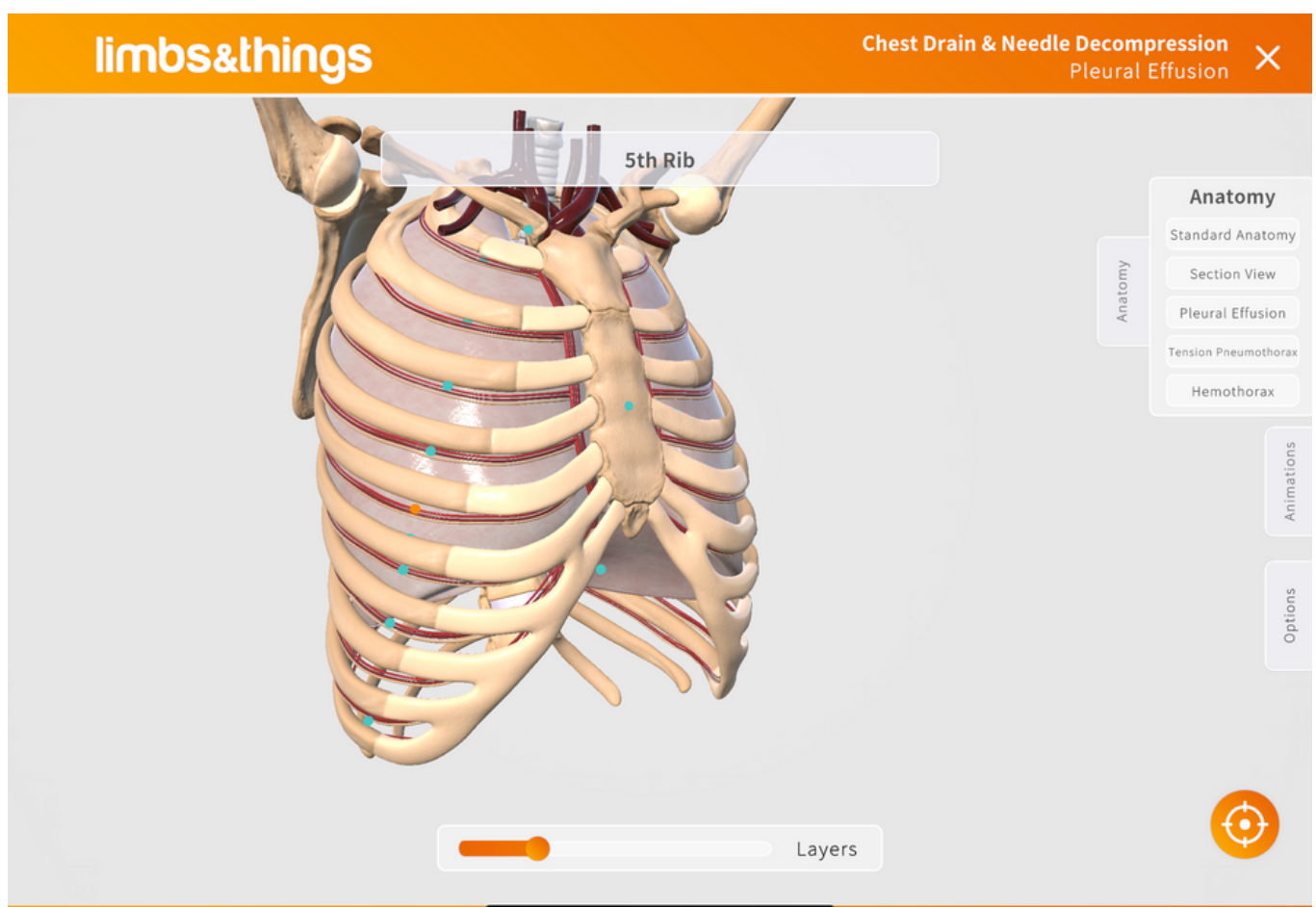


Image 2: 3D Interactive, showing labeled anatomical structures

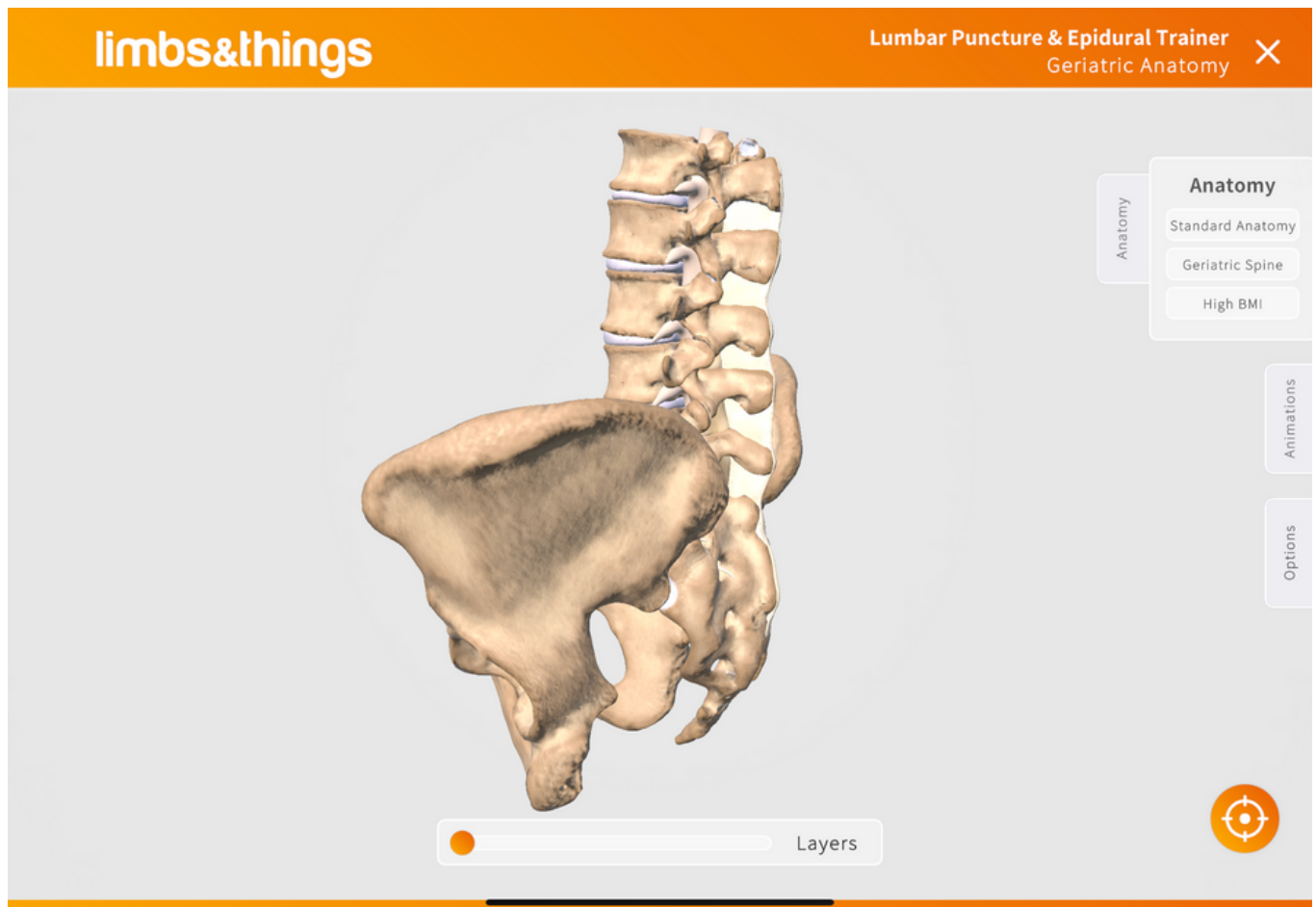


Image 3: 3D Interactive, showing a clinically relevant variation

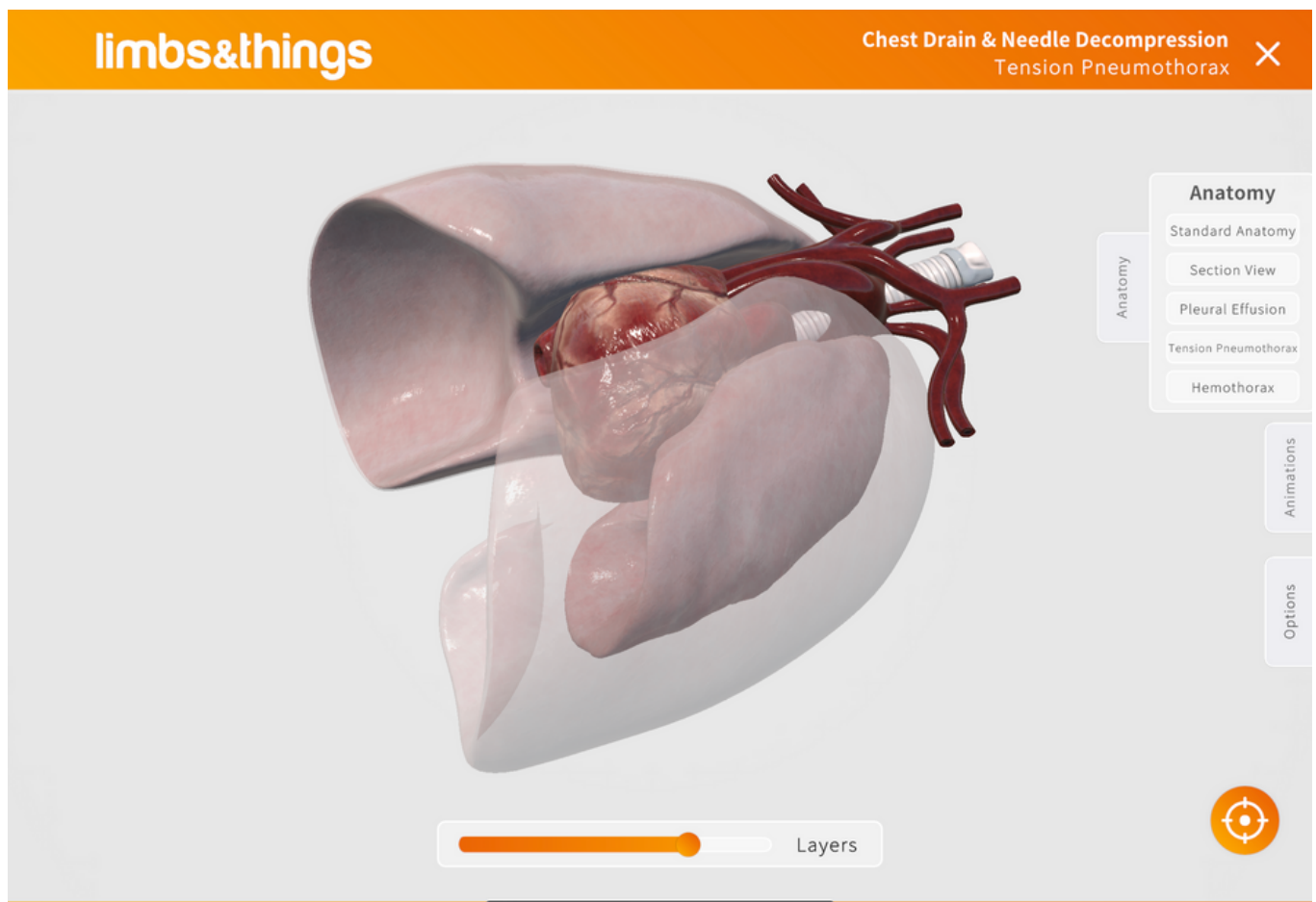


Image 4: 3D Interactive, showing a clinically relevant variation

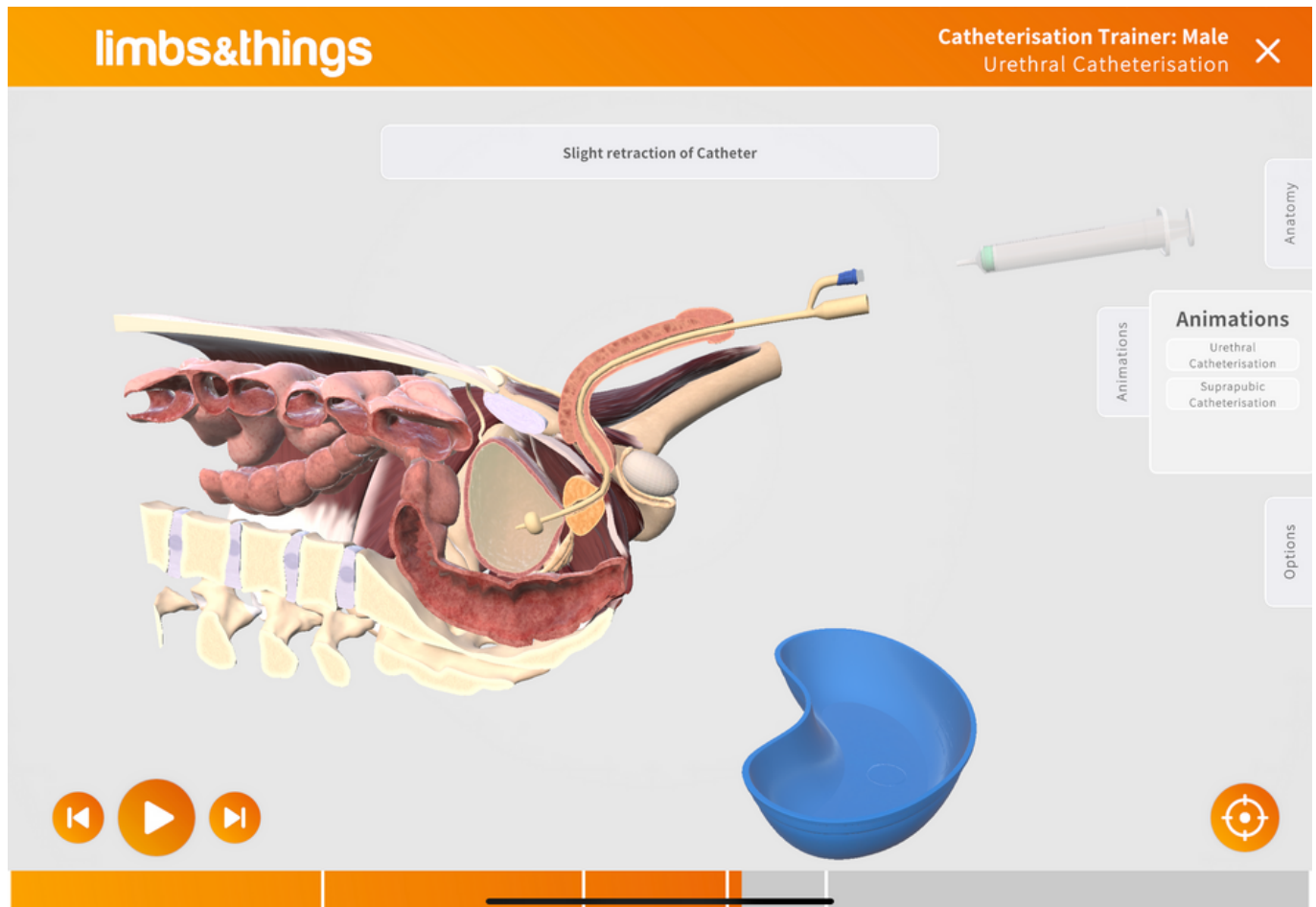


Image 5: 3D Interactive, showing a clinically relevant animation

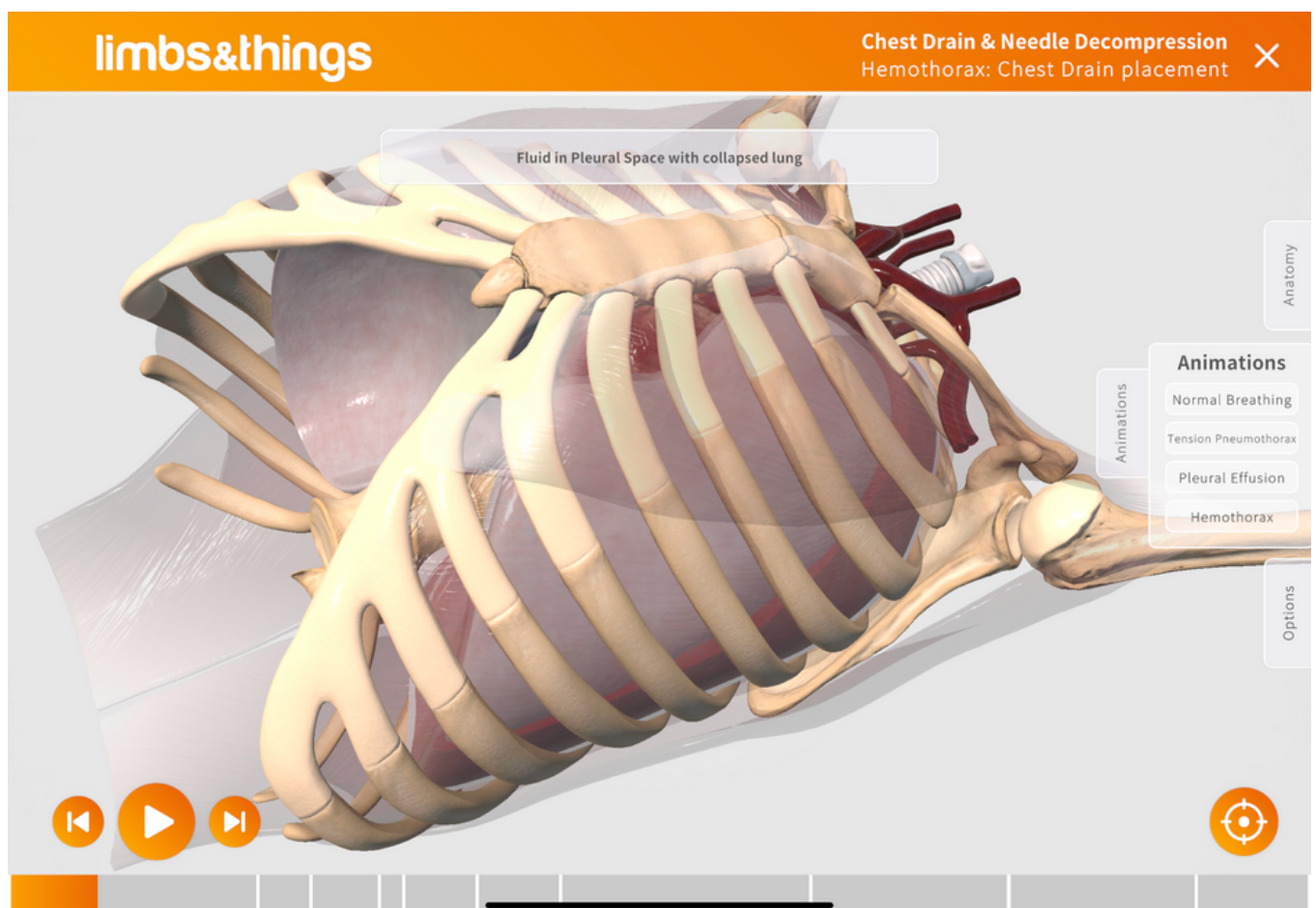


Image 6: 3D Interactive, showing a clinically relevant animation



Image 7: Augmented Reality, clinically relevant animation for Lumbar Puncture procedure



Image 8: Augmented Reality, clinically relevant animation for female catheterisation;



Image 9: Augmented Reality, clinically relevant animation for Hemothorax.



Image 10: Augmented Reality in action, clinically relevant animation for Tension Pneumothorax

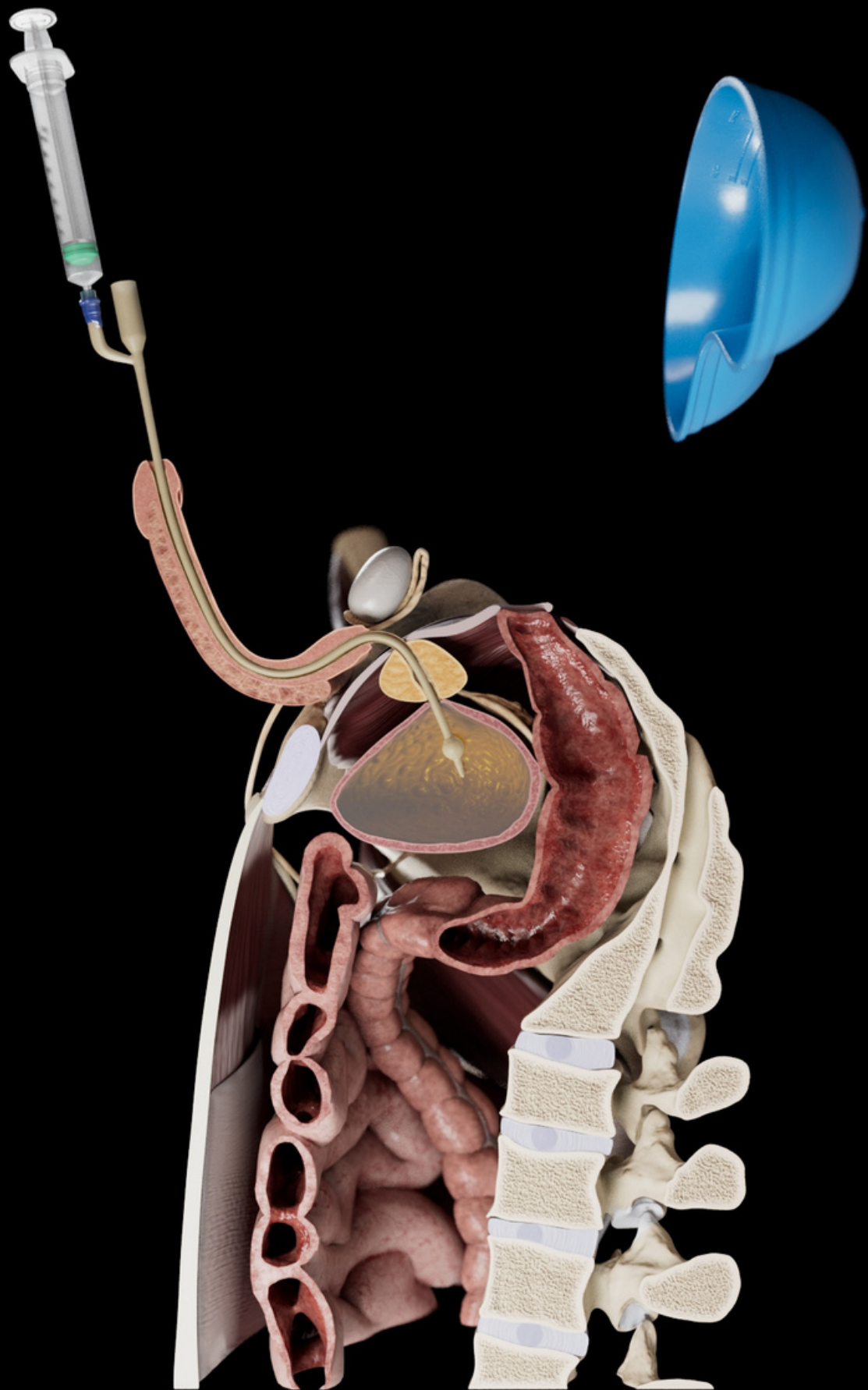


Image 11: Render - Male Catheterisation



Image 12: Renders - Standard anatomy of the Chest



Image 13: Render - Baby in Left Occipitoanterior Position