ANSYS - Trachea Analysis

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Trachea Analysis Problem Specification

This tutorial shows how to simulate deformation of a trachea under a pressure load. Dimensions and properties used in this tutorial are:

- 7 cartilage rings, each 300 degrees, thickness 1.1mm, width 5 mm, E = 2 MPa, Poisson's ratio = .3
- Tissue thickness 1 mm, width 10 mm, E = 20 kPa, Poisson's ratio = .3
- Trachea diameter of 20 mm

Steps to modify properties (to model tracheomalacia) and geometry (to model tracheotomy) are shown in the exercises.

Below is a summary of Ansys steps demonstrated in the videos:

Go to Step 1: Pre-Analysis & Start-Up

Go to all ANSYS Learning Modules