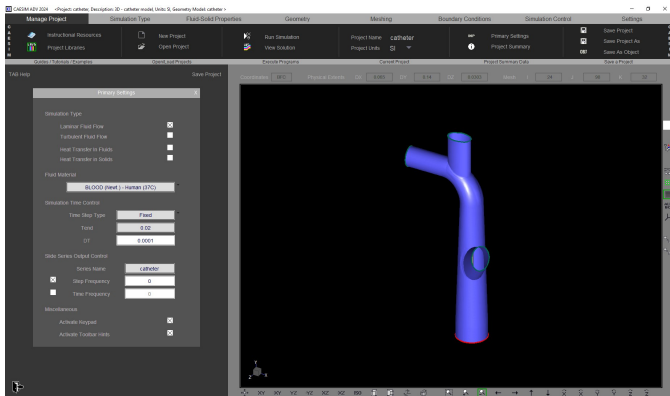


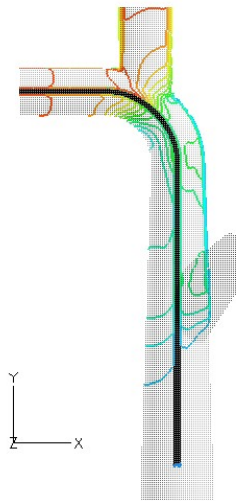
Assessing Catheter Placement in the Superior Vena Cava

Adaptive Research

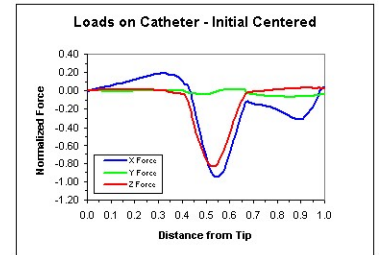
Computational Fluid Dynamics provides a non-invasive tool to assess catheter placement in the central venous system. Numerical simulations of blood flow around the catheter can be used to predict pressure and viscous forces acting on the device. This type of information is critical to evaluate catheter displacements inside the vein and possible damage to the vessel wall. CFD techniques produce fluid-structure interaction data usually not available directly from in vivo or in vitro measurements



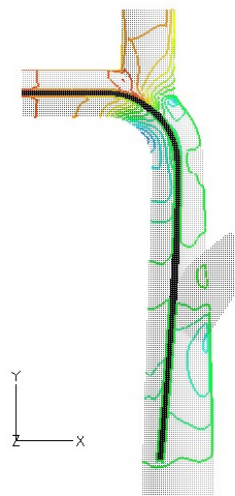
CAESIM Software



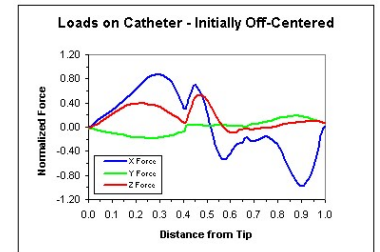
RELATIVE PRESSURE
Frontal View



Catheter initially centered
Resulting Pressure Loads



RELATIVE PRESSURE
Frontal View



Catheter initially off-centered
Resulting Pressure Loads

CAESIM Simulation Platform

A powerful computational fluid dynamics software program developed by Adaptive Research. CAESIM solves real-world engineering problems by simulating virtually any physical process involving fluid flow and heat transfer.