

Week 5: Simulation for Tech Memo

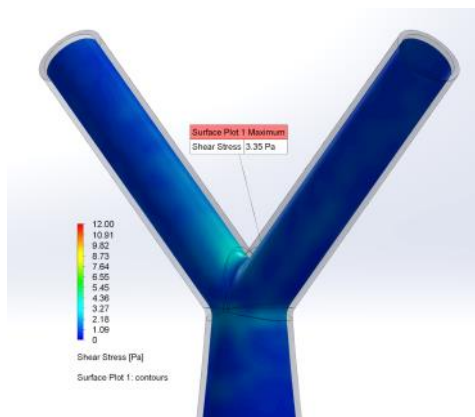
Wednesday, September 28, 2022 9:09 AM

Objective: Perform the simulations and change obstruction radius till each parameter is breached.

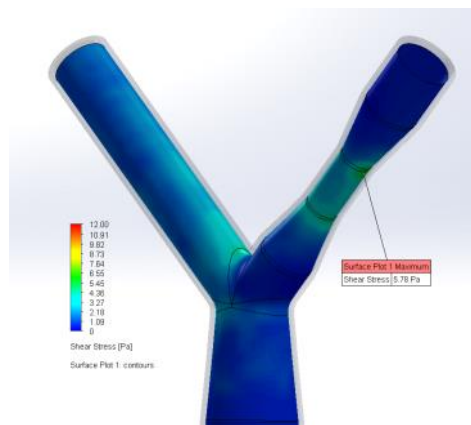
For each fluid mechanic parameter listed above, what is the cutoff value between "OK" and "bad, we need to intervene"

Fluid mechanics parameter	Value or indication of a "bad" condition	References
Shear Stress	@Wall: Rupture: 56.2 +/- 30.6 Pa => > 55 Pa is concerning	[8]
Pressure	Over 140/90 mmHg = "bad"	[9], [10]
Mass Flow Rate	ICA: 351 ± 109 ml/min is severe => below 375 ml/min is concerning	[11]

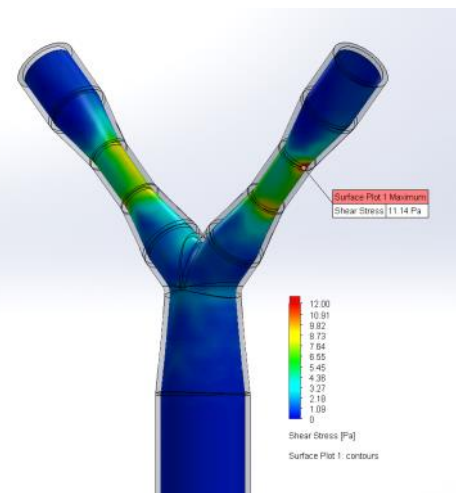
Shear Stress No Obs



One Obs



Two Obs



Week 6: Circuits Lab

Tuesday, October 4, 2022 10:25 PM

Did the prelab quiz and made sure Dr. Dan's parts library worked with my fusion

Objective: Complete the in lab quiz and work on tech memo If time allows

Pre Lab Quiz Math:

$$G = \frac{1 \times 10^6 \Omega}{200 \times 10^3 \Omega} = 5$$

$$G_{dB} = 20 \log(5) = 13.98 \text{ dB}$$

$$f_c = \frac{1}{2\pi(200 \times 10^3 \Omega)(0.22 \times 10^{-6} \text{ F})} = 3.617 \text{ Hz}$$