Physio ex cardiovascular dynamics essay

1.

Describe the relationship between blood pressure and blood flow. Blood flow is the amount of blood flowing through a vessel, tissue, or organ during a given period of time and Blood pressure is the force exerted on a vessel wall by the blood traveling through it. 2. Describe the relationship between blood viscosity and blood flow. As blood viscosity increases, blood flow decreases.
3.

Describe the relationship between vessel radius and blood flow. Vessel radius has a direct relationship with blood flow. As blood vessels constrict (vasoconstriction), blood flow is decreased. As blood vessels dilate (vasodilatation), blood flow is increased.

4. Describe the relationship between vessel length and blood flow. The longer a vessel is the slower blood flow is going to be. The shorter a vessel is the faster blood flow is going to be. 5. In a partially blocked coronary artery, what happens to vessel radius and what effects does this have on blood flow? What effect would this have on the heart? The blood vessel would constrict and cause your blood pressure to increase. This would put great strain on your heart and eventually cause a heart attack.

6. Predict the effects of dehydration and polycythemia on blood viscosity. How would this effect blood flow? If the body was dehydrated, blood viscosity would increase and cause blood flow to decrease because the blood is thicker. Polycythemia causes blood viscosity to increase as well also causing blood flow to decrease.