

## **CFD Modelling of Blood Flow in Portal Vein with and without Blockages**

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### **ABSTRACT**

In this study we have examined blood flow in a model of the portal vein with and without obstructions to simulate conditions with the help of computational fluid dynamics available in Fluent 6.0, which are common in liver diseases. We evaluated the impact of both conditions on the flow behaviour and found significant differences in the two models. Blockages, even when the flow conditions did not change, had an impact on the velocity magnitude, pressure, strain rate and shear stress in a model of portal vein hypertension due to liver diseases.

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