

Abstract Submitted
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Analysis of the Aortic Pressure Waveforms Using Numerical Method DOO HYUN NAM, SOO YEON KIM, RICHARD KYUNG, Choice Research — Aortic valve disease is the most common valvular disease in our cardiovascular system. It causes the calcification of the aortic valve leaflets, leading to obstruction to blood flow from the left ventricle to the Aorta. During the past couple of decades, the numerical analysis for the dynamics of blood flow and its relationship with disease has become appreciated by medical and biological researchers. Also numerical analysis of blood flow in the cardiovascular system has been considered as a key factor in both the cause of cardiovascular disease and the regulation of cellular biology in normal and diseased arteries. Modeling the biofluid systems experimentally and numerically is an important component to fundamental research of cardiovascular disease. However, numerical methods offer the advantage of changing flow variables that affecting the outcome quickly for the entire biofluid system.

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