

Vortex Formation in the Cardiovascular System (Hardback)

By Arash Kheradvar, Gianni Pedrizzetti

Springer London Ltd, United Kingdom, 2012. Hardback. Condition: New. 2012 ed.. Language: English . Brand New Book. Vortex Formation in the Cardiovascular System will recapitulate the current knowledge about the vortex formation in the cardiovascular system, from mechanics to cardiology. This can facilitate the interaction between basic scientists and clinicians on the topic of the circulatory system. The book begins with a synopsis of the fundamentals aspects of fluid mechanics to give the reader the essential background to address the proceeding chapters. Then the fundamental elements of vortex dynamics will be discussed, explaining the conditions for their formation and the rules governing their dynamics. The main equations are accompanied by mathematical models. Cardiovascular vortex formation is first analyzed in physiological, healthy conditions in the heart chambers and in the large arterial vessels. The analysis is initially presented with an intuitive appeal grounded on the physical phenomena and a focus on its clinical significance. In the proceeding chapters, the knowledge gained from either clinical or basic science literature will be discussed. The corresponding mathematical elements will finally be presented to ensure the adequate diligence. The proceeding chapters ensue to the analysis of pathological conditions, when the reader may have developed the ability...



Reviews

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Comprehensive guideline for book lovers. It is really simplified but excitement in the fifty percent in the publication. Your daily life period is going to be change as soon as you full looking at this book. -- Kayley Lind