

## FOREWORD TO THE SECOND EDITION

Dr. Meyer Texon has made many important contributions to the pathogenesis of atherosclerosis. He has dedicated his unusual scientific abilities to studying the role of hemodynamics in the production of atherosclerosis. His insights are unique and his data are very pertinent. A lifetime of biomedical research is presented in a lucid and convincing manner in this second edition of *Hemodynamic Basis of Atherosclerosis*.

In the development of atherosclerosis there are many factors that contribute to the ultimate lesions which cause major circulatory problems. These factors include metabolic pathways which result in cellular, subcellular and molecular changes. Different cells participate in forming the lesions which include mononuclear cells which are blood monocytes, endothelial cells and platelets. The products of these cells and the lipids contribute importantly to the aberrations.

What has been generally neglected in studying the pathogenesis of atherosclerosis are the physical factors of the circulation and in particular the structure of blood vessels and the effects of the forces of blood flow on the structure of the layers of tissues that form blood vessels. We pay a great deal of attention to physical factors which affect the structures and functions of our anatomy in producing abnormalities. Thus, much interest is spent on muscles, joints and skin but little on the physical forces of dynamic systems such as the circulation.

Included in the pathogenesis of atherosclerosis are the physical forces. Hydromechanics are a major component of the circulation. These mechanics are influenced by the gross structure of the circulatory system. Atherosclerosis is more common in segments of the circulation which have particular relationships to large and medium sized blood vessels. It is quite likely that physical forces contribute significantly to the lesions.

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