

Introduction

Introduction

This chapter will present a brief review of the vast range of biophysical contexts in which fluid flows play a major role. The human body alone incorporates many essential fluid flow systems that sustain life including the blood circulation system, air flow through the lungs, joint lubrication, intraocular fluid movement, renal transport, the reproductive system, etc. Here we touch on many of the features of these physiological systems but the full range is beyond the scope of this text. Moreover, fluid mechanics plays a major role in many other biological contexts such as the locomotion of a multitude of large and small creatures, birds, fish and microorganisms and the collective behaviors in swarms such as algal blooms.