Trauma biomechanics uses the principles of mechanics to study the response and tolerance level of biological tissues under extreme loading conditions. Through an understanding of mechanical factors that influence the function and structure of human tissues, countermeasures can be developed to alleviate or even eliminate such injuries. Trauma Biomechanics surveys a wide variety of topics in injury biomechanics including anatomy, injury classification, injury mechanisms, and injury criteria. The interdisciplinary approach necessary in trauma biomechanics is stressed by showing the span from anatomy to engineering solutions for each body region. Injury reference values are listed, either currently in use or proposed by both the U.S. and European countries. Although the book is meant as a first introduction for medical doctors and engineers, sufficient references for scientific research are provided also.

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