Chapter 24 by T. M. Hansen is concerned with the production of collagen in granulation tissue from the point of view of the antigenic and immunologic properties of collagen. The ability of collagen to bind antigens to aggregate thrombocytes, to exhibit chemotaxis and to inactivate complement may be of pathogenic relevance for the development of chronic inflammatory processes in connective tissue. Hansen's paper presents a method of producing granulated tissue by implanting synthetic sponges subcutaneously. Chapter 25 by Zederfeldt discusses various factors influencing wound healing. This is a truly well-written short introduction to the subject. Chapter 26 by Fogdestam and Gottrup discusses method of measuring strength of tissues during wound healing.

I believe that the wound healing process is stress modulated. But the influence of stress field on wound healing is not mentioned by any of these papers! This marks a fundamental difference in the points of view between orthopedic surgeons and plastic and general surgeons. In bone research, Wolff's law has been accepted for a long time. Healing of bone requires an appropriate stress being applied to the bone: the stress must not be too large, neither should it be too small. An optimal range exists for growth. Stresses outside the range lead to resorption. There is evidence that the growth of soft tissue is also stress modulated. Perhaps we will hear more about this in the future.

In conclusion, I recommend this book for any bioengineer's bookshelf.


This is a delightful book. It is written for physical educators, coaches of athletic teams, and athletes. In this book the basic concepts are very clearly presented, and then applied to the analysis of sports techniques. Chapter 1 is an introduction (8 pp.) Chapters 2-7 (157 pp.) deal with basic concepts: forms of motion, linear kinematics, angular kinematics, linear kinetics, angular kinetics, and fluid mechanics. Chapters 8-17 are analysis of sports techniques. The successive chapter headings are: Baseball, Basketball, Football, Golf, Gymnastics, Softball, Swimming, Track and Field, Running, Jumping, and Throwing. This part occupies 314 pages, and is quite exhaustive. For each sport, the analysis is divided into two parts: Basic Considerations and Techniques. The former deals with the factors involved. The latter gives details with particular emphasis on those areas where there are known to be disagreements among teachers and coaches.

The new edition incorporates new findings of current research. As the author says: "The techniques employed in sports sometimes change at an almost bewildering rate, so that those concerned have a difficult time keeping abreast of them." For example, in the few years since the text was first published, the grab start has almost universally accepted as the fastest starting technique in swimming; the rotational technique has become accepted as a viable alternative to the long-dominant O'Brien technique in short putting; the standing start, recently thought to be a similarly viable alternative to the traditional crouch start in sprinting, has been outlawed by a rule change; and the somersault long-jumping technique has arrived, been banned, and departed. The new techniques are discussed in the book.

I recommend this book to all people interested in biomechanics, not only athletes and coaches, but also to bioengineers, orthopedic surgeons, physiologists, and general readers. It is easy to read and easy to understand, and will make people enjoy sports more.
Sports Biomechanics: The Basics: Optimising Human Performance. Dr. Anthony J. 4.9 out of 5 stars 17. Paperback. 12 offers from £3.77. Biomechanics For Dummies. Steve McCaw. 4.2 out of 5 stars 7. Paperback. £15.99. Biomechanics of Sport and Exercise. Peter M. McGinnis. 4.8 out of 5 stars 4. Hardcover. 18 offers from £4.09. Foundations of Sport and Exercise Psychology. Robert S. Weinberg. 4.0 out of 5 stars 12. Recognized both nationally and internationally as the leading text in the field, this volume provides a scientific basis for the analysis of the various techniques used in specific sports. What other items do customers buy after viewing this item? Introduction to Sports Biomechanics: Analysing Human Movement Patterns. Paperback. Roger Bartlett. Introduction to Sports Biomechanics: Analysing Human Movement Patterns provides a genuinely accessible and comprehensive guide to all of the biomechanics topics covered in an undergraduate sports and exercise science degree. Now revised and in its second edition, Introduction to Sports Biomechanics is colour illustrated and full of visual aids to support the text. Most sports biomechanics textbooks, including the rst edition of this one, have strongly reected the mathematical, engineering or physics backgrounds of their authors and their predominant research culture. More advanced students wishing to probe deeper into measurement techniques and data processing will nd the new text edited by Carl Payton and myself a source of more.