

Joint Function Preservation: A Focus on the Osteochondral Unit

★★★ Score: 79

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| Editor: | Gobbi, Alberto , Lane, John G., Longo, Umile Giuseppe, Dallo, Ignacio, |
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| Publisher: | Springer |
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At A Glance

This user-friendly, pragmatic book discusses the normal and pathological conditions of the appendicular skeleton, with a focus on the preservation of joint function, providing a detailed overview of strategies for both common and complex joint preservation. The first section covers basic topics, ranging from joints homeostasis and biomechanics, to genetics, bio-orthopedics tissue engineering and 3D bioprinting. The following sections are each dedicated to a specific joint its functional anatomy, pathologic conditions, diagnostics and treatment. This book is of interest to orthopedists and sports medicine specialists treating common and complex injuries of the joints.

Expert Review

Reviewer: Samuel Chmell, MD (University of Illinois at Chicago College of Medicine)

Description

This book provides information on "biologics, articular homeostasis, synovia, and the cross-talking concept between the cartilage and its subjacent tissue when the knee function is compromised." Characteristics of other joints are included. The catchy subtitle, "A Focus on the Osteochondral Unit," is noteworthy.

Purpose

While prosthetic joint replacement continues to be the main treatment option for failing arthritic knee and hip joints, biologic treatments are gaining interest with regeneration as the ultimate goal. This book addresses these joint preservation issues that are on the horizon and worthwhile exploring.

Audience

This book will be of interest to residents in training, practicing clinicians, and research scientists who have an interest in developing successful treatments for arthritic joint restoration. The authors are knowledgeable in the subject matter in which they have written.

Features

Many different issues are addressed, some of which are directly related to joint restoration and preservation and others that are peripheral. Fracture healing and avascular necrosis are among the latter and can be separately presented to a great extent. The sections on joint homeostasis, the osteochondral unit, and bone marrow edema are well done. There is a failure to recognize that treatments using hyaluronan, platelet-rich plasma, corticosteroid and stem cell injections, and oral glucosamine lack substantial evidence for success.

Assessment

This treatise will be a desirable addition to a library that is frequented by individuals interested in the aforementioned topics who still use print references.

Review Questionnaire

| Range | Question | Score |
|-------|--|------------|
| 1-10 | Are the author's objectives met? | 8 |
| 1-10 | Rate the worthiness of those objectives. | 8 |
| 1-5 | Is this written at an appropriate level? | 5 |
| 1-5 | Is there significant duplication? (1=significant, 5=insignificant) | 4 |
| 1-5 | Are there significant omissions? (1=significant, 5=insignificant) | 4 |
| 1-5 | Rate the authority of the authors. | 4 |
| 1-5 | Are there sufficient illustrations? | 3 |
| 1-5 | Rate the pedagogic value of the illustrations. | 4 |
| 1-5 | Rate the print quality of the illustrations. | 4 |
| 1-5 | Are there sufficient references? | 3 |
| 1-5 | Rate the currency of the references. | 4 |
| 1-5 | Rate the pertinence of the references. | 4 |
| 1-5 | Rate the helpfulness of the index. | 4 |
| 1-5 | If important in this specialty, rate the physical appearance of the book | N/A |

1-10 Is this a worthwhile contribution to the field?

8

1-10 If this is a 2nd or later edition, is this new edition needed?

N/A