

Basic aspects of Biomaterials.



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Nowadays, biomaterials are currently used to replace or restore several parts of the human body. Accordingly, one of the objectives of this lecture will be to put the biomaterials development in a historical perspective. It will also make an overview of the organs and tissues that can be replaced in the human body, with a focus on materials properties that are requested to match organs or tissues physiological functions. Finally, research avenues to promote proactive interactions between biomaterials and the surrounding physiological environment will be presented.^[1]

[1] Biomaterials science : an introduction to materials in medicine, 2nd ed., Buddy D. Ratner, Allan S. Hoffmann, Frederick J. Schoen, and Jack E. Lemons eds., Elsevier Academic Press, California, 2004.