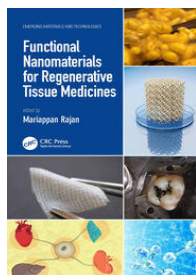


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Chapter

Surgical Nanomaterials for Spinal Deformities

Design of Materials and Their Investigations

By *Dilip Kumar Patel, Roohi Kesharwani, Surendra Tripathy, S.N. Singh, Vikas Kumar*

Book [Functional Nanomaterials for Regenerative Tissue Medicines](https://www.taylorfrancis.com/books/mono/10.1201/9781003140108/functional-nanomaterials-regenerative-tissue-medicines?refId=05a98c8b-9a36-44eb-b224-053c3b74e266&context=ubx)

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ABSTRACT

The spine refers to a perplexing association of tissues, tendons, plates, muscle, and bones, and picking an embed to treat the spine may be troublesome because biomechanical properties, for example, the modulus of the flexibility of the practical unit, ought to be mulled over. Ongoing advances and progress in nanotechnology are opening up new opportunities to improve the surgeries for treating spinal injuries. Nanoengineered materials can soon open critical doors to make specially crafted inserts and uniquely customized functionalities for the conveyance of medication to the damages site. The positive and powerful application of nanomaterials is most likely a consequence of the surface unpleasantness, nanotopography, hydrophobicity, and surface region created by including nanomaterials. This article gives a prologue to osteoporotic vertebral breaks and current clinical medicines, along with the justification and viability of using nanomaterials to change and improve biomaterials or instruments.

< [Previous Chapter \(chapters/edit/10.1201/9781003140108-13/novel-biologicals-technological-platforms-dental-clinical-use-vasudha-bakshi-mounika-nerella-narender-boggula?context=ubx\)](https://www.taylorfrancis.com/chapters/edit/10.1201/9781003140108-13/novel-biologicals-technological-platforms-dental-clinical-use-vasudha-bakshi-mounika-nerella-narender-boggula?context=ubx)
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