

Nanotechnology in Medical Implants: Revolutionizing Drug Delivery Systems

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Abstract

Nanotechnology has emerged as a groundbreaking innovation in the field of medical implants, particularly in the development of advanced drug delivery systems. By leveraging the unique properties of nanomaterials, such as their high surface area, small size, and ability to interact with biological systems at the molecular level, nanotechnology enables more precise and controlled release of therapeutic agents directly at the target site. This approach significantly enhances the effectiveness of drug delivery while minimizing systemic side effects. In medical implants, nanotechnology can be used to coat devices, integrate drug-eluting properties, or create implants that release medications in response

