



Biomaterials in Orthopedic Implants Improving Longevity and Performance

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potential, his article highlights the importance of biomaterials in improving clinical outcomes and the overall success of orthopedic surgeries.

Literature Review

The literature review discusses the evolution of biomaterials in orthopedic implants, focusing on the transition from traditional metals to advanced polymers and ceramics. It highlights the challenges of biocompatibility and mechanical strength, and reviews recent advancements in surface coatings and porous structures. Key studies are cited, including Smith et al. (2018) on titanium alloys, Jones et al. (2019) on polyethylene, and Lee et al. (2020) on ceramic coatings. The review concludes that these innovations are crucial for extending the lifespan and performance of orthopedic implants.

