

# Emerging Spinecare Trends

## Spine Informatics

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Bioinformatics is the field of science in which biology, computer science, and information technology merge to form a single discipline. Spine informatics can be defined as the intersection of spine science, computer science, and a spine pathology database. This emerging field will strongly impact future spinecare. It will enable the discovery of new biological insights and be used to develop global databases from which unifying principles in spine physiology and pathology can be discerned. Spine informatics encompasses the technology and methods required to optimize the acquisition, storage, retrieval, and use of information in spinecare. Informatics tools include computers, merged databases, and communication systems.

Software programs will be designed to identify specific findings such as disease characteristics or structural features on imaging studies and map them to standard ontologies in an accepted lexicon. This will allow for quick and comprehensive retrieval of information on patients with spine disorders who have had imaging studies done. Major advances in spinecare will emerge secondary to broader development and application of informatics. It will help drive population-based prevention programs and community education.