

1. Record Nr.	UNINA9910484363103321
Titolo	Cardiovascular 3D printing : techniques and clinical application // Jian Yang, Alex Pui-Wai Lee, Vladimiro L. Vid, editors
Pubbl/distr/stampa	Singapore : , : Springer, , [2021] ©2021
ISBN	981-15-6957-6
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XV, 185 p. 128 illus., 106 illus. in color.)
Disciplina	610.28
Soggetti	Biomedical engineering Three-dimensional printing Three-dimensional imaging in medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	History of 3D printing in cardiovascular diseases -- Methods of 3D printing in cardiovascular diseases -- Material selection of 3D printing in cardiovascular diseases -- Clinical application of 3D printing in cardiovascular diseases -- 3D printing in congenital cardiac diseases -- 3D printing in valve diseases -- 3D printing in LAAO -- 3D printing in coronary diseases -- 3D printing in cardiac tumour -- 3D printing in cardiomyopathy -- 3D printing in large vascular diseases -- Perspective and advancement of 3D printing.
Sommario/riassunto	This book offers readers a comprehensive introduction to the techniques and application of 3D printing in cardiovascular medicine. To do so, it addresses the history, concepts, and methods of 3D printing, choice of printing materials for clinical purposes, personalized planning of cardiac surgery and transcatheter interventions with patient-specific models, enhancement of patient-physician communication, simulation of endovascular procedures, and advances in 3D bio-printing. The book particularly focuses on the application of 3D printing to improve the efficacy and safety of cardiac interventions, and to promote the realization of precision medical care. The book gathers contributions by an international team of experts in the field of cardiovascular medicine, who combine the latest findings with their

own practical experience in using 3D printing to support the diagnosis and treatment of a wide range of cardiovascular diseases. They present in-depth discussions in the fields of congenital heart disease, valvular disease, coronary artery disease, cardiomyopathy, left atrial appendage occlusion, cardiac tumors and vascular diseases.
