



PNEUMATIC INTRACARDIAC-CATHETER-PUMP WITH HIGH-PERFORMANCE CERAMICS

MEDICAL ENGINEERING

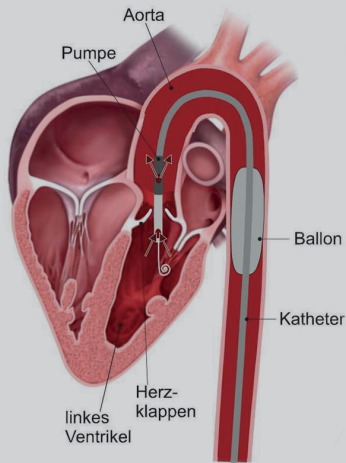
Best Practice Example created by



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After a heart surgery or a cardiac infarction the heart needs support to pump the blood. This novel approach developed by the Vienna University of Technology and Vienna Medical University is made of ceramic and is driven by helium gas. Together with an already existing balloon, which ensures that the coronary vessels are provided with enough blood, the pump is inserted via a catheter and no electrical power supply is necessary.

Professor Dr. Margit Gföhler:

„The 3D-printing technology for aluminium oxide developed by Lithoz enabled us to implement a cost-effective prototyping process for such a highly complex medical product. Aluminium oxide is a perfect fit for miniature parts due to its biocompatibility and mechanical properties.“