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Spine Metal Implants

(METALOWE IMPLANTY KRĘGOSŁUPOWE)

Cz.1. Techniczne aspekty biotolerancji

Summary: Basing on properties of metallic implant materials and the characteristics of metallic spinal implants the technical and electrochemical aspects which determine the corrosion resistance of implant systems, especially against the crevice corrosion, have been presented. The factors significantly influencing on the crevice corrosion phenomenon and responsible on the particular stages of production, storage, implantation and utilisation for the determination of the highest corrosion resistance have been divided into the following factor groups: material, geometric-constructional, technological and utility one. The corrosion resistance of implant during its shaping, finishing and usage is a specific compromise between the medical needs and technical possibilities to fulfil them. The role which is played by modern analytical techniques in the estimation of contact damages especially caused by micromouvments has been explained also. The important directions of further research , especially in the field of construction as well as the improvement of the finishing methods were pointed out.

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