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## Soft Tissue Prostheses Produced with 3D Colour Printing Technology

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By Zardawi, Faraedon

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | 3D Printed Facial Prostheses | The numbers of patients needing facial prostheses has increased in the last few decades due to improving cancer survival rates. The many limitations of the handmade prostheses together with rapid expansion of prototyping in all directions, particularly in producing human anatomically accurate parts, have raised the question of how to employ this technology for rapid manufacturing of facial soft tissue prostheses. The idea started to grow and the project was implemented based on CAD/CAM principles additive manufacturing technology, by employing layered fabrication of facial prostheses from starch powder and a water based binder and infiltrated with a silicone polymer (SPIS). The project aimed to produce a facial prosthesis by using 3D colour printing, which would match the patient's skin shade and have the desirable mechanical properties, through a relatively low cost process that would be accessible to the global patient community. This was achieved by providing a simple system for data capture, design and reproducible method of manufacture with a clinically acceptable material. The prosthesis produced has several advantages and few limitations when compared to existing | Format: Paperback | Language/Sprache: english | 336 pp.



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