



Universiteit
Leiden
The Netherlands

Safety of orthopedic implants: implant migration analysis a must

Hasan, S.

Citation

Hasan, S. (2024, June 4). *Safety of orthopedic implants: implant migration analysis a must*. Retrieved from <https://hdl.handle.net/1887/3762018>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3762018>

Note: To cite this publication please use the final published version (if applicable).

Safety of Orthopedic Implants

Implant Migration Analysis a must

PhD thesis, Leiden University, The Netherlands

For printing of this thesis, financial support of the following institutions and companies is gratefully acknowledged: Nederlandse Orthopaedische Vereniging, Universiteit Leiden, Anna Fonds, ABN Amro en Chipsoft.

Copyright 2024 S. Hasan, The Hague

All rights reserved. No part of this thesis may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without prior permission of the author.

Printing: Proefschriftmaken

Layout by: S. Hasan | Proefschriftmaken

ISBN: 978-94-6469-843-5

Safety of Orthopedic Implants: implant migration analysis a must

Proefschrift

ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof. dr. ir. H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op dinsdag 4 juni 2024

klokke 16;15 uur

door

Shaho Hasan

geboren te Alkmaar

in 1992

Promotores

Prof. dr. RGHH Nelissen

Dr. PJ Marang-van de Mheen

Copromotor

Dr. BL Kaptein

Leden promotiecommissie

Prof. dr. RW Poolman

Prof. dr. IB Schipper

Prof. dr. PA Nolten, Spaarne Gasthuis

Prof. dr. D Eygendaal, Erasmus Medisch Centrum

Dr. S Toksvig-Larsen

Contents

- Chapter I** General introduction and outline
- Chapter II** RSA-tested Total Knee Arthroplasty implants on average have lower 10 year revision rates than non-RSA-tested designs
- Chapter III** Biomarkers to discriminate between aseptic loosened and stable total hip or knee implants: A systematic review
- Chapter IV** All-polyethylene versus metal-backed posterior stabilized total knee arthroplasty: Similar 2-year results of a randomized Radiostereometric Analysis study
- Chapter V** Migration of a novel 3-D printed cementless versus a cemented total knee arthroplasty: two-year results of a randomized controlled trial using radiostereometric analysis
- Chapter VI** Mid-term results of all-polyethylene versus metal-backed condylar and posterior stabilizing total knee arthroplasty
- Chapter VII** RSA migration of unicondylar knee replacements: A systematic review and meta-analysis
- Chapter VIII** The influence of postoperative coronal alignment on tibial migration after total knee arthroplasty in preoperative varus and valgus knees
- Chapter IX** General discussion and future perspectives
- Chapter X** Summary
- Chapter XI** Summary in Dutch (Nederlandse samenvatting)
- Chapter XII** Appendices (Acknowledgements, Bibliography, Curriculum Vitae)