

## Press release

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### Basic information

Name: Peter Bo Jørgensen    Email: pbjr@clin.au.dk Phone: 24422004

Department of: Public Health

Main supervisor: Maiken Stilling

Title of dissertation: Kinematics, tribology and safety of a dual mobility hip prosthesis

Date for defence: 29/10 at (time of day): 10 Place: Auditorium C114-101, Aarhus University Hospital

Press release (Danish)

En undersøgelse af bevægelighed og holdbarhed i en kunstig hoftesproteze med dobbeltled.

En kunstig hofte med et dobbeltled består af en bevægelig plast mellem en hofteskål og et ledhoved. Dobbeltledet mindsker risikoen for, at den kunstige hofte kan gå ud af led - men kun hvis plasten bliver ved med at kunne bevæge sig, når den kunstige hofte er indsatt i patienten. Det er vanskeligt at måle plastens bevægelighed, fordi den ikke kan ses med røntgen. I dette ph.d. projekt præsenteres en avanceret og præcis metode til at måle bevægelsen af plasten i kunstige hofter med dobbeltled samt resultaterne af en klinisk undersøgelse af plastbevægelsen, slitage af plasten i og knoglebinding af den kunstig hofte med dobbeltled. Resultaterne er sammenfattet i et nyt ph.d. projekt af cand.scient.san Peter Bo Jørgesen fra Aarhus Universitet, Health.

Forsvaret af ph.d. projektet er offentligt og finder sted den 29. oktober 2021 kl. 10.00 i Auditorium C114-101, Aarhus Universitetehospital, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N.

Forsvaret kan følges via Zoom:

<https://uso2web.zoom.us/j/81362713377?pwd=SUxCcnJ2bFhzMGdPYnlMMoRGdTBRUT0>

ID: 813 6271 3377

Kode: 298708).

Titlen på ph.d. projektet er "Kinematics, tribology and safety of a dual mobility hip prosthesis".

Yderligere oplysninger: Ph.d.-studerende Peter Bo Jørgensen, e-mail: pbjr@clin.au.dk, tlf. 24422004.

Bedømmelsesudvalg:

Alma Bećić Pedersen, Professor, MD, PhD, DMSc (formand)

Department of Clinical Epidemiology, Aarhus University Hospital, Denmark

Stuart Callery, Senior Medical Scientist, MMSc, PhD

Department of Orthopaedics and Trauma, Royal Adelaide Hospital, Adelaide, Australia

Centre for Orthopaedic and Trauma Research, The University of Adelaide, Adelaide, Australia

Henrik Malchau, Professor, MD, PhD

Harvard Medical School, Massachusetts General Hospital, Boston, Massachusetts, USA

Department of Orthopaedics, Sahlgrenska University Hospital, Mölndal, Sweden

Press release (English)

Investigations of mobility and durability of a dual mobility hip prosthesis.

A dual mobility hip prosthesis consist of a moveable plastic liner between a metal acetabular component and a femoral head. The dual mobility articulation design reduce the risk of hip

dislocation after total hip arthroplasty - but only if the plastic liner keeps moving during hip function in the patient. It is difficult to measure the liner motion, because the plastic is translucent in radiographs. In this ph.d. project an advanced and precise method to measure motion of the plastic liner is presented and used to measure liner motion, liner wear and prosthesis fixation in the bone in clinical studies. The results are presented by cand.scient. san Peter Bo Jørgensen in a new ph.d project from Aarhus University, Health.

The defence is public and takes place on October 29<sup>th</sup>, 2021 at 10.00 AM in Auditorium C114-101, Aarhus University Hospital, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N.

The defence can also be followed on Zoom  
(<https://us02web.zoom.us/j/81362713377?pwd=SUxCcnJ2bFhzMGdPYnlMMoRGdTBRUT09>)  
ID: 813 6271 3377  
Code: 298708).

The title of the project is 'Kinematics, tribology and safety of a dual mobility hip prosthesis'. For more information, please contact ph.d. student Peter Bo Jørgensen, email: pbjr@clin.au.dk, Phone +45 24422004.

Assessment committee:  
Alma Bečić Pedersen, Professor, MD, PhD, DMSc (Chairman and moderator of the defence)  
Department of Clinical Epidemiology, Aarhus University Hospital, Denmark

Stuart Callery, Senior Medical Scientist, MMSc, PhD  
Department of Orthopaedics and Trauma, Royal Adelaide Hospital, Adelaide, Australia  
Centre for Orthopaedic and Trauma Research, The University of Adelaide, Adelaide, Australia

Henrik Malchau, Professor, MD, PhD  
Harvard Medical School, Massachusetts General Hospital, Boston, Massachusetts, USA  
Department of Orthopaedics, Sahlgrenska University Hospital, Mölndal, Sweden

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