

Curriculum Vitae

Jon Tjörnstrand

Date of birth: 08-01-1973

Nationality: Swedish

Education and qualifications

University Medical Degree (MD), University of Lund, Sweden, June 1999.

License to practice by the Swedish National Board of Health and Welfare (Socialstyrelsen), May 2001.

Specialist of Orthopaedics, Sweden, September 2008.

Doctor of Philosophy (PhD), Faculty of Medicine, Lund University, Sweden, November 2019
(Thesis title: “*The Prognostic value of dGEMRIC regarding future knee OA*”).

Granted the qualification as a Specialist of Orthopaedics by the Danish National Board of Health and Welfare (Styrelsen for Patientsikkerhed), Denmark, June 2024.

Courses/international education and exchange

Altogether 10 orthopaedic “SK” or SK-equal during the residency covering spine, hip, knee, hand, foot, tumour, and paediatrics, throughout Sweden 2003-2008.

Knee and Hip implant surgery specific:

Hip Arthroplasty Exeter, Exeter GB, 2004

Current Concepts in joint replacement, Orlando Fl US, 2007, 2009 and 2013.

Visit at Prof. Hurst’s office and operation theatre, demonstration of primary and revision knee arthroplasty, Manchester, UK, 2007.

Advanced hip surgery, Visby, 2010

Hip Arthroplasty Corail, Arlanda, 2010

Infection in Knee Arthroplasty, Werheim Tyskland, 2010

Knee Arthroplasty, Triathlon, PKA/TKA/Revision. Wetlab. Luzern, Schweiz, 2013.

Knee Arthroplasty, Triathlon, TS/Revision. Wetlab, Edinburgh Scotland, 2015.

Work Experience

Residency, Dept. of Orthopaedics, Malmö University Hospital, Sweden 2002-2007

Orthopaedic Specialist, Dept. of Orthopaedics, Skåne University Hospital/Malmö, Sweden:2008-2012

Orthopaedic Specialist, Dept. of Orthopaedics, Skåne University Hospital/Lund, Sweden: 2012-2020

Assistant Consultant, Dept. of Orthopaedics, Skåne University Hospital/ Lund, Sweden: 2020-2021

Senior Consultant, Dept. of Orthopaedics, Skåne University Hospital/ Lund, Sweden, 2021-2024

Expert consulting assignments on osteoarthritis and arthroplasty matters, including joint replacement surgeries, for JT Ortho Consulting AB: 2022-

Scientific contributions

Author or co-author of 20 published peer reviewed papers. 2004-2024

OARSI, Berlin, 2003 (poster + oral presentation)

ORS, San Fransisco 2004 (poster),

ORS, Washington 2005 (poster).

AAOS, Washington, 2005

SOF, Örebro, 2004 (poster + oral presenstation)

SOF, Kristianstad, 2012

SOF, Umeå, 2017, (poster + oral presentation)

8th Nordic Cartilage Imaging Meeting in Båstad 2017, abstract, speaker

LOAD, Torekov, 2019, speaker.

Educational experience: Teaching at Lund University

Amanuensis of orthopaedics - teacher of medical students, August 2014 – May 2015

Various lectures and education participation mainly related to OA surgery for student of medicine, nurse, scrub nurse, physiotherapists and occupational therapists. 2012-2024

Scientific Associations

Member of the Swedish Medical Association

Member of the Swedish Orthopaedic Association (SOF)

Member of the Swedish Hip and Knee Society

Publications (peer reviewed)

Rydén M, Sjögren A, Önnerrfjord P, Turkiewicz A, Tjörnstrand J, Englund M et al. Exploring the Early Molecular Pathogenesis of Osteoarthritis Using Differential Network Analysis of Human Synovial Fluid. *Molecular and Cellular Proteomics*. 2024 juni;23(6):100785. doi: 10.1016/j.mcpro.2024.100785

Shakya BR, Karjalainen VP, Hellberg I, Finnilä MAJ, Elkhoully K, Sjögren A, Tjörnstrand J, et al. Prevalence and classification of meniscal calcifications in the human knee. *Osteoarthritis and Cartilage*. 2024 aug. 6. Epub 2024 aug. 6. doi: 10.1016/j.joca.2024.07.013

Hellberg I, Karjalainen VP, Finnilä MAJ, Jonsson E, Turkiewicz A, Önnerrfjord P, Tjörnstrand J, et al. 3D analysis and grading of calcifications from ex vivo human meniscus. *Osteoarthritis and Cartilage*. 2023;31(4):482-492. Epub 2022. doi: 10.1016/j.joca.2022.10.016

Rydén M, Turkiewicz A, Önnerrfjord P, Tjörnstrand J, Englund M, Ali N. Identification and quantification of degradome components in human synovial fluid reveals an increased proteolytic activity in knee osteoarthritis patients vs controls. *Proteomics*. 2023;23(15). Epub 2023 maj 24. doi: 10.1002/pmic.202300040

Ali N, Turkiewicz A, Hughes V, Folkesson E, Tjörnstrand J, Neuman P et al. Proteomics profiling of human synovial fluid suggests increased protein interplay in early-osteoarthritis (OA) that is lost in late-stage OA. *Molecular & Cellular Proteomics*. 2022;100200. doi: 10.1016/j.mcpro.2022.100200

Bergvinsson H, Zampelis V, Sundberg M, Tjörnstrand J, Flivik G. Vitamin E infused highly cross-linked cemented cups in total hip arthroplasty show good wear pattern and stabilize satisfactorily: a randomized, controlled RSA trial with 5-year follow-up. *Acta Orthopaedica*. 2022;93:249-255. doi: 10.2340/17453674.2022.1517

Finnilä MAJ, Das Gupta S, Turunen MJ, Hellberg I, Turkiewicz A, Lutz-Bueno V et al. Mineral Crystal Thickness in Calcified Cartilage and Subchondral Bone in Healthy and Osteoarthritic Human Knees. *Journal of Bone and Mineral Research*. 2022 sep.;37(9):1700-1710. Epub 2022. doi: 10.1002/jbmr.4642

Karjalainen VP, Kestilä I, Finnilä MA, Folkesson E, Turkiewicz A, Önnerrfjord P, Tjörnstrand J, et al. Quantitative three-dimensional collagen orientation analysis of human meniscus posterior horn in health and osteoarthritis using micro-computed tomography. *Osteoarthritis and Cartilage*. 2021 maj 1;29(5):762-772. Epub 2021 feb. 12. doi: 10.1016/j.joca.2021.01.009

Einarsson E, Svensson J, Folkesson E, Kestilä I, Tjörnstrand J, Peterson P et al. Relating MR relaxation times of ex vivo meniscus to tissue degeneration through comparison with histopathology. *Osteoarthritis and Cartilage Open*. 2020 juni;2(2):100061. doi: 10.1016/j.ocarto.2020.100061

Folkesson E, Turkiewicz A, Rydén M, Hughes HV, Ali N, Tjörnstrand J et al. Proteomic characterization of the normal human medial meniscus body using data-independent acquisition mass spectrometry. *Journal of Orthopaedic Research*. 2020 aug.;38(8):1735-1745. Epub 2020 jan. 28. doi: 10.1002/jor.24602

Folkesson E, Turkiewicz A, Ali N, Rydén M, Hughes HV, Tjörnstrand J et al. Proteomic comparison of osteoarthritic and reference human menisci using data-independent acquisition mass spectrometry. *Osteoarthritis and Cartilage*. 2020 aug. 1;28(8):1092-1101. Epub 2020 maj 11. doi: 10.1016/j.joca.2020.05.001

Kestilä I, Folkesson E, Finnilä MA, Turkiewicz A, Önnerrfjord P, Hughes V, Tjörnstrand J, et al. Three-dimensional microstructure of human meniscus posterior horn in health and osteoarthritis. *Osteoarthritis and Cartilage*. 2019;27(22):1790-1799. Epub 2019 juli 10. doi: 10.1016/j.joca.2019.07.003

Olsson E, Folkesson E, Peterson P, Önnerrfjord P, Tjörnstrand J, Hughes HV et al. Ultra-high field magnetic resonance imaging parameter mapping in the posterior horn of ex vivo human menisci. *Osteoarthritis and Cartilage*. 2019;27(3):476-483. Epub 2018 dec. 12. doi: 10.1016/j.joca.2018.12.003

Tjörnstrand J, Neuman P, Svensson J, Lundin B, Dahlberg L, Tiderius CJ. Osteoarthritis development related to cartilage quality-the prognostic value of dGEMRIC after anterior cruciate ligament injury. *Osteoarthritis and Cartilage*. 2019 juni 13;27(11):1647-1652. doi: 10.1016/j.joca.2019.06.012

Tjörnstrand J. The prognostic value of dGEMRIC regarding future knee OA Long-term assessment after traumatic chondral injury and ACL injury. Lund: Lund University: Faculty of Medicine, 2019. 120 s. (Lund University, Faculty of Medicine Doctoral Dissertation Series; 114).

Tjörnstrand J, Neuman P, Lundin B, Svensson J, Dahlberg LE, Tiderius CJ. Poor outcome after a surgically treated chondral injury on the medial femoral condyle: early evaluation with dGEMRIC and 17-year radiographic and clinical follow-up in 16 knees. *Acta Orthopaedica*. 2018;89(4):431-436. doi: 10.1080/17453674.2018.1481304

Owman H, Ericsson Y, Englund M, Tiderius CJ, Tjörnstrand J, Roos EM et al. Association between delayed gadolinium-enhanced MRI of cartilage (dGEMRIC) and joint space narrowing and osteophytes: a cohort study in patients with partial meniscectomy with 11 years of follow-up. *Osteoarthritis and Cartilage*. 2014;22(10):1537-1541. doi: 10.1016/j.joca.2014.02.929

Neuman P, Tjörnstrand J, Svensson J, Ragnarsson C, Roos H, Englund M et al. Longitudinal assessment of femoral knee cartilage quality using contrast enhanced MRI (dGEMRIC) in patients with anterior cruciate ligament injury - comparison with asymptomatic volunteers. *Osteoarthritis and Cartilage*. 2011;19:977-983. doi: 10.1016/j.joca.2011.05.002

Ericsson Y, Tjörnstrand J, Tiderius CJ, Dahlberg L. Relationship between cartilage glycosaminoglycan content (assessed with dGEMRIC) and OA risk factors in meniscectomized patients. *Osteoarthritis and Cartilage*. 2009;17:565-570. doi: 10.1016/j.joca.2008.10.009

Tiderius CJ, Tjörnstrand J, Åkeson P, Södersten K, Dahlberg L, Leander P. Delayed gadolinium-enhanced MRI of cartilage (dGEMRIC): intra- and interobserver variability in standardized drawing of regions of interest. *Acta Radiologica*. 2004;45(6):628-634. doi: 10.1080/02841850410008379