

# The Knee

VOLUME 40

CONTENTS

JANUARY 2023

## Editorial

- New Year's resolutions and activity modification A1
- Reviewer thank-you 2022 A2

## Reviews

- Kinematic alignment results in clinically similar outcomes to mechanical alignment: Systematic review and meta-analysis  
J. Van Essen, J. Stevens, M.M. Dowsey, P.F. Choong, S. Babazadeh (Australia) 24
- Indications and timing in isolated medial femoral hemiepiphysiodesis for idiopathic genu valgum: A systematic review  
E. Artioli, A. Mazzotti, V. Ramacci, S.O. Zielli, V. Digennaro, A. Ruffilli, C. Faldini (Italy) 52
- Supervised versus unsupervised rehabilitation following total knee arthroplasty: A systematic review and meta-analysis  
M. Bravi, U.G. Longo, A. Laurito, A. Greco, M. Marino, M. Maselli, S. Sterzi, F. Santacaterina (Italy) 71
- A systematic review of outcomes of high tibial osteotomy for the valgus knee  
A. Coakley, M. McNicholas, L. Biant, G. Tawy (UK) 97
- The effects of open wedge high tibial osteotomy for knee osteoarthritis on the patellofemoral joint. A systematic review  
T. Kurien, J. East, V. Mandalia (UK) 201
- Does laterality matter? a systematic review and meta-analysis of clinical and survival outcomes of medial versus lateral meniscal scaffolds  
S.K.A. Phua, S.Y.Y. Tham, S.W.L. Ho (Singapore) 227

## Basic science

- Sagittal mechanical ratio: A novel technique to define sagittal alignment of the femur independent of distal anatomic landmarks  
B.C. Allen, B.D. Welling, L.J. Villamaria, Y. Munoz-Maldonado (USA) 192
- A new look at quadriceps tendon – Is it really composed of three layers?  
Ł. Olewnik, N. Zielinska, K. Ruzik, P. Karauda, M. Podgórski, A. Borowski, R.F. LaPrade (Poland, United States) 292

## Biomechanics & Kinematics

- Correlation of knee laxity with alignment and repetitive physical activity in patients with knee osteoarthritis: A cross-sectional study  
M. Wada, T. Miyazaki, Y. Yamamoto, T. Sakamoto, T. Adachi (Japan) 111
- Targeted exercises can improve biomechanical markers in individuals with knee osteoarthritis: A secondary analysis from a cluster randomized controlled trial  
A. Cagnin, M. Choinière, N.J. Bureau, M. Durand, N. Mezghani, N. Gaudreault, N. Hagemeister (Canada) 122
- Computer-based analysis of different component positions and insert thicknesses on tibio-femoral and patello-femoral joint dynamics after cruciate-retaining total knee replacement  
M. Kebbach, A. Geier, M. Darowski, S. Krueger, C. Schilling, T.M. Grupp, R. Bader (Germany, Japan) 152
- Effect of iliotibial band and gastrocnemius activation on knee kinematics  
A. Chevalier, A. Van Overmeire, H. Vermue, L. Pringels, S. Herregodts, J. Victor, M. Loccufier (Belgium) 238
- How metal augments, polyethylene thickness and stem length affect tibial baseplate load transfer in revision total knee arthroplasty  
J. LaMonica, N. Pham, K. Milligan, S.M. Tommasini, R. Schwarzkopf, R. Parisi, D.H. Wiznia (USA) 283

## Soft Tissue

- An analysis of the incidence, risk factors, and timing of development of cyclops lesions after anterior cruciate ligament reconstruction  
T.E. Moran, E.R. Taleghani, J.R. Ruland, A.J. Ignozzi, J. Hart, D.R. Diduch (USA) 1

High initial graft tension is a post-operative risk factor for high UTE T2* value of the graft 6 months after anterior cruciate ligament reconstruction K. Asai, J. Nakase, R. Yoshimizu, M. Kimura, T. Kanayama, Y. Yanatori, H. Tsuchiya (Japan)	143
<b>Arthritis &amp; Osteotomies</b>	
Higher activity level after opening wedge high tibial osteotomy compared to medial unicompartmental knee arthroplasty in a selected cohort of advanced age: A propensity score-matched analysis D. Screpis, G. Piovan, M. Baldini, A. Amarossi, S. Natali, V. Iacono, A.P. Gigante, C. Zorzi (Italia, Italy)	183
Key-point estimation of knee X-ray images using a parallel fusion decoding network Z. Wu, R. Zhang, H. Bai, J. Ma, X. Ma, X. Zhu (China)	256
<b>Rehabilitation &amp; Orthotics</b>	
Unloader bracing in osteoarthritis of the knee – Is there a direct effect on the damaged cartilage? S. Beck, F. Dittrich, A. Busch, M. Jäger, J.M. Theysohn, A. Lazik-Palm, J. Haubold (Germany)	16
Evaluating the effective pressure applied by a valgus knee orthosis in individuals with medial knee osteoarthritis based on the dose–response relationship M. Khosravi, M. Jalali, T. Babae, M. Ali Sanjari, A. Rahimi (Iran)	174
Quantifying muscle strength, size, and neuromuscular activation in adolescent and young adult survivors of musculoskeletal sarcoma: Identifying correlates and responses to functional strengthening K. Rock, O. Addison, V.L. Gray, C.M. Nelson, R.M. Henshaw, T. York, K. Ruble, V. Marchese (USA)	270
<b>Arthroplasty</b>	
Immunohistochemical analysis of the quadriceps femoris muscle before and after total knee arthroplasty E. Haruo Kawatake, A. de Castro Pochini, M. Cohen, M. Vinicius Malheiros Luzo, C. Augusto Real Martinez, J. Aires Pereira (Brazil)	42
Low dose vancomycin-loaded spacers for two-stage revision knee arthroplasty: High success, low toxicity E.S. Dedeogullari, O. Caglar, M. Danisman, A.M. Tokgozoglu, S. Kamaci, B. Atilla (Turkey)	63
Age, female sex, and oral contraceptive use are risk factors for anterior cruciate ligament reconstruction: A nationwide database study C.X. Wang, N. Kale, V.J. Wu, M. Stamm, M.K. Mulcahey (United States)	135
Analysis of revision rates and complication rates among patients undergoing unicompartmental and bicompartamental knee Arthroplasties when compared to Total knee arthroplasty A.R. Agarwal, J.S. Cohen, S.I. Fuller, A. Malyavko, G. Golladay, S.C. Thakkar (United States)	166
Return to work and employment retention after uni-compartmental and total knee replacement: findings from the Clinical Outcomes in Arthroplasty study E. Zaballa, G. Ntani, E.C. Harris, N.K. Arden, C. Cooper, K. Walker-Bone (United Kingdom, Australia)	245
Is cement mantle thickness a primary cause of aseptic tibial loosening following primary total knee arthroplasty? Z.C. Cox, S.M. Engstrom, A.A. Shinar, G.G. Polkowski, J.B. Mason, J.R. Martin (USA)	305
Inflammatory bowel disease is associated with increased complications after total knee arthroplasty E.A. Remily, O.C. Sax, S.J. Douglas, C.G. Salib, H.S. Salem, R.G. Monárrez, R.E. Delanois (USA)	313
<b>Case Reports</b>	
Supra tubercular tibial osteotomy and gradual correction with Taylor spatial frame for the management of Torsional malalignment syndrome – surgical technique and outcomes J. Hogg, M. Hampton, S. Madan (United Kingdom)	8
Three-stage total knee arthroplasty combined with deformity correction and leg lengthening using Taylor spatial frames and conversion to internal fixation for severe intra- and extra-articular deformities and hypoplasia in a patient with hemophilic knee arthropathy: A case report A. Fukushima, K. Iwasaki, R. Hishimura, S. Matsubara, Z. Joutoku, M. Matsuoka, T. Endo, T. Onodera, E. Kondo, N. Iwasaki (Japan)	90
Intraoperative avulsion fracture of the intercondylar eminence in Oxford mobile-bearing unicompartmental knee arthroplasty: Case report A. Saitoh, T. Hiranaka, A. Arimoto, A. Tanaka, Y. Suda, M. Koide, T. Fujishiro, K. Okamoto (Japan)	220