

## Curriculum Vitae

**Name:** Seong-Eun, Byun, M.D., Ph.D.

**Gender:** Male

**Date of Birth:** February 15<sup>th</sup>, 1980

**Nationality:** Republic of Korea

**Current Professional Position:** Associate Professor, Department of Orthopaedic Surgery  
CHA Bundang Medical Center, CHA University

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### Academic Preparation:

Preliminary Course; March, 1998 – February, 2000,  
College of Natural Science, Seoul National University

College of Medicine; March, 2000 – February, 2004,  
Seoul National University, Korea

Master Degree from Graduate School of Medicine; February, 2012  
Graduate School of Medicine, Ulsan University

Ph. D. from Graduate School of Medicine; February, 2017  
Graduate School of Medicine, Ulsan University

### Training:

Internship; March, 2004 – February, 2005  
Seoul National University Hospital

Resident; May, 2008 – February 2012  
Department of Orthopaedic Surgery, Asan Medical Center, Ulsan University

Fellowship; March, 2012 – February, 2014  
Department of Orthopaedic Surgery, Asan Medical Center, Ulsan University  
December, 2018 – December, 2019  
Denver Health Medical Center, University of Colorado

### Professional Experience:

March, 2014 ~ February, 2015: Clinical Assistant Professor, Department of Orthopaedic Surgery  
CHA Bundang Medical Center, CHA University

March, 2015 ~ February, 2020: Assistant Professor, Department of Orthopaedic Surgery

CHA Bundang Medical Center, CHA University

March, 2020 ~ Present: Associate Professor, Department of Orthopaedic Surgery  
CHA Bundang Medical Center, CHA University

**Certification & License:**

Korean Medical License: February, 2004 (No: 83794)

Korean Board of Orthopaedic Surgery: February, 2012 (No: 5660)

**Publications**

**SCI(E) papers**

**First author**

- 1) Byun SE, Lee HS, Ahn JY, Seo DK, Seo JH. Treatment of naviculo-first cuneiform coalition of the foot. *Foot Ankle Int.* 2014;35(5):489-495.
- 2) Byun SE, Shon HC, Park JH, Oh HK, Cho YH, Kim JW, Sim JA. Incidence and risk factors of knee injuries associated with ipsilateral femoral shaft fractures: A multicentre retrospective analysis of 429 femoral shaft injuries. *Injury.* 2018 Aug;49(8):1602-1606.
- 3) Byun SE, Shon HC, Kim JW, Kim HK, Sim Y. Risk factors and prognostic implications of aspiration pneumonia in older hip fracture patients: A multicenter retrospective analysis. *Geriatr Gerontol Int.* 2019 Feb;19(2):119-123.
- 4) Byun SE, Kim S, Kim KH, Ha YC. Psoas cross-sectional area as a predictor of mortality and a diagnostic tool for sarcopenia in hip fracture patients. *J Bone Miner Metab.* 2019 Sep;37(5):871-879.
- 5) Byun SE, Choi W, Choi Y, Ahn TK, Kim HK, Yoon S, Lee J, Choi DS. Impact of two- and three-dimensional computed tomography use on intraobserver and interobserver reliabilities of pilon fracture classification and treatment recommendation. *Orthop Traumatol Surg Res.* 2019 Nov;105(7):1407-1412.
- 6) Byun SE, Kwon KB, Kim SH, Lim SJ. The prevalence, risk factors and prognostic implications of dysphagia in elderly patients undergoing hip fracture surgery in Korea. *BMC Geriatrics.*

2019;19:356.

- 7) Byun SE, Sim JA, Joo YB, Kim JW, Choi W, Na YG, Shon OJ. Changes in patellar fracture characteristics: A multicenter retrospective analysis of 1596 patellar fracture cases between 2003 and 2017. *Injury*. 2019 Dec;50(12):2287-2291.
- 8) Byun SE, Jung GH. Implications of three-dimensional modeling of tibia for intramedullary nail fixation: A virtual study on Asian cadaver tibia. *Injury*. 2020 Feb;51(2):505-509.
- 9) Byun SE, Shon OJ, Sim JA, Joo YB, Kim JW, Na YG, Choi W. Application of Three-Dimensional Computed Tomography Improved the Interrater Reliability of the AO/OTA Classification Decision in a Patellar Fracture. *J Clin Med*. 2021 Jul 23;10(15):3256. doi: 10.3390/jcm10153256. PMID: 34362040; PMCID: PMC8347080.
- 10) Byun SE, Sim C, Chung Y, Kim HK, Park S, Kim DK, Cho S, Lee S. Skeletal Muscle Regeneration by the Exosomes of Adipose Tissue-Derived Mesenchymal Stem Cells. *Curr Issues Mol Biol*. 2021 Oct 9;43(3):1473-1488. doi: 10.3390/cimb43030104. PMID: 34698065.
- 11) Byun SE, Cho YH, Lee YK, *et al*. Straight nail insertion through a laterally shifted entry for diaphyseal atypical femoral fractures with bowing: good indications and limitations of this technique. *International Orthopaedics (SICOT)*. 2021; **45**:3223–3232. <https://doi.org/10.1007/s00264-021-05212-0>
- 12) Byun SE, Hwang J, Salameh M, *et al*. Three-Dimensional Computed Tomography Reconstructions Do Not Improve the Interobserver Reliability of the AO/Orthopaedic Trauma Association and Young and Burgess Pelvic Fracture Classifications. *JOJO* 2022;**56**:1018–1022. <https://doi.org/10.1007/s43465-022-00637-0>
- 13) Byun SE, Lee KJ, Shin WC, Moon NH, Kim CH. The effect of teriparatide on fracture healing after atypical femoral fracture: A systematic review and meta-analysis. *Osteoporos Int*. 2023 Aug;34(8):1323-1334. doi: 10.1007/s00198-023-06768-w.
- 14) Lee JW, Byun SE, Kim YW, Byun YS, Yoon YC, Sohn HS. Fibular fixation in same-level distal third tibiofibular fractures: Is fibular fracture regarded as a secondary importance? *Clin Orthop Surg*. 2023 Oct; 15(5): 704–710. (Co-first author)

- 15) Byun SE, Kim H, SY Lee, Kim SM. Selective estrogen receptor modulators (SERMs) with Vitamin D Composite Agent Can Prevent Fracture Better than SERMs Treatment: Based on the National Health Claims Database 2017–2019. *Osteoporos Int.* 2024 Jan 19. doi: 10.1007/s00198-024-07022-7. Online ahead of print.
- 16) Byun SE, Kim JW, Koo J, Lee S. Psoas muscle area is associated with prognosis in elderly patients with hip fracture. *J Bone Miner Metab.* 2024 Jan;42(1):115-121. doi: 10.1007/s00774-023-01485-0.

### **Corresponding author**

- 17) Cho WS, Byun S-E, Lee S-J, Yoon J. Laxity after complete release of the medial collateral ligament in primary total knee arthroplasty. *Knee Surg Sports traumatol Arthrosc.* 2015;23(6):1816-1823.
- 18) Cho WS, Cho HS, Byun SE. Changes in hindfoot alignment after total knee arthroplasty in knee osteoarthritic patients with varus deformity. *Knee Surg Sports Traumatol Arthrosc.* 2017 Nov;25(11):3596-3604.
- 19) Choi W, Kim JH, Byun SE, Ryu HS, Rojas D. Effect of preoperative vitamin D deficiency on functional outcomes after high tibial osteotomy: a retrospective case control study. *BMC Musculoskeletal Disorders.* 2020;21:251.
- 20) Cho YH, Kim S, Koo J, SE Byun. Failure after intramedullary nailing for geriatric trochanteric fracture: does quality of fracture reduction on the AP and lateral planes show the same results? *Arch Orthop Trauma Surg.* 2024 Jan 2. doi: 10.1007/s00402-023-05176-3.

### **Coauthor**

- 21) Cho WS, Byun SE, Cho W-J, Yoon YS, Dhurve K. Polymorphonuclear cell count on frozen section is not an absolute index of reimplantation in infected total knee arthroplasty. *Journal of Arthroplasty.* 28(10):1874-1877, 2013.
- 22) Kim JW, Byun SE, Chang JS. The clinical outcomes of early internal fixation for undisplaced femoral neck fractures and early full weight-bearing in elderly patients. *Arch Orthop Trauma Surg.* 2014. 134:941-946.

- 23) Park JH, Shon HC, Chang JS, Kim CH, Byun SE, Han BR, Kim JW. How can MRI change the treatment strategy in apparently isolated greater trochanteric fracture? *Injury*. 2018. 49(4):824-828.
- 24) Rojas D, Coleman J, Moore E, Dean C, Parry J, Elrick B, Ryan W, Nadeau J, Maher M, Hwang J, Byun SE, Mauffrey C. The Association of Surgical Timing and Injury Severity with Systemic Complications in Severely Injured Patients with Pelvic Ring Injuries. *J Orthop Traum*. 2020. [Epub ahead of print]

### **Scopus papers**

#### **First author**

- 25) Byun SE, Maher M, Mauffrey C, Parry J. The standard sagittal starting point and entry angle for tibia intramedullary nails results in malreduction of proximal tibial fractures. *Eur J Orthop Surg Traumatol*. 2020;30(6):1057-1060.
- 26) Byun SE, Vintimilla D, Bedeir Y, Dean C, Parry J, Hak D, Mauffrey C. Evaluation of callus formation in distal femur fractures after carbon fiber composite versus stainless steel plate fixation. *Eur J Orthop Surg Traumatol*. 2020;30(6):1103-1107.

#### **Coauthor**

- 27) Han SH, Choi W, Song J, Kim J, Lee S, Choi Y, Byun SE, Ahn T, Ahn H, Ding C, Baik L, Ward S, Ting K, Lee S. The Implication of Substance P in the Development of Tendinopathy: A Case Control Study. *Int J Mol Sci*. 2017 Jun 9;18(6). pii: E1241.
- 28) Ahn SH, Koh JM, Gong EJ, Byun S, Lee SY3, Kim BJ, Lee SH, Chang JS, Kim GS. Association of Bone Marrow Sphingosine 1-phosphate Levels with Osteoporotic Hip Fractures. *J Bone Metab*. 20(2):61-65, 2013.
- 29) Lee JK, Byun SE, Lee M, Kim G, Baek E, Han SH. Muscle mass measurements in hip fracture patients and control general population depending on dual-energy X-ray absorptiometry device used: The General Electric Lunar and Hologic systems. *Osteoporosis and Sarcopenia*. 2020; 6(2):88-93.

### **Book chapters & Other journals**

- 30) Byun SE, Maher M, Hwang JH, Parry J, Mauffrey C. Periarticular and Intra-articular fractures. In: Crist B, Borrelli JR. J, Harvey E. (eds) Essential Biomechanics for Orthopedic Trauma. Springer, Cham. 2020. [https://doi.org/10.1007/978-3-030-36990-3\\_18](https://doi.org/10.1007/978-3-030-36990-3_18)
- 31) Byun SE, Y Choi, W Choi. Pediatric Cartilaginous Tibia Eminence Fracture Overlooked on Plain Radiograph: A Report of Two Cases. J Korean Fract Soc. 2017 Jan;30(1):29-34.
- 32) Byun SE, T Kim, BH Kim, JH Kim, SH Han, W Choi. Avulsion of the Femoral Attachment of Anterior Cruciate Ligament Associated with Ipsilateral Femoral Shaft Fracture in Skeletally Mature Patient: A Case Report. J Korean Fract Soc. 2016 Jul;29(3):200-205.
- 33) Byun SE, SJ Lee, U Kim, YR Choi, SH Han, BG Kim. Usefulness of Computed Tomography on Distal Tibia Intra-Articular Fracture Associated with Spiral Tibia Shaft Fracture. J Korean Fract Soc. 2016 Apr;29(2):114-120.
- 34) Byun SE, HJ Lee, J Kim, SJ Lee, U Kim, SH Han. Surgical Outcomes after Olecranon Plating with Retrograde Coronoid Process Screw Fixation through the Plate Hole in the Bifocal Fracture of the Proximal Ulna. J Korean Orthop Assoc. 2016 Oct;51(5):403-410.
- 35) Byun SE, C Mauffrey, JH Yoo, CW Park, JH Hwang. Simulation for Reduction of Transverse Acetabular Fractures in Sawbones Models. J Korean Fract Soc. 2019 Oct;32(4):196-203.
- 36) Byun SE. Denosumab (RANKL inhibitor): A Potent Anti-Resorptive Agent. J Korean Fract Soc. 2021 Oct;34(4):142-147.
- 37) Kim BJ, Shin KO, Kim H, Ahn SH, Lee SH, Seo CH, Byun SE, Chang JS, Koh JM, Lee YM. The effect of sphingosine-1-phosphate on bone metabolism in humans depends on its plasma/bone marrow gradient. J Endocrinol Invest. 2016 Mar;39(3):297-303.
- 38) Kim JW, Byun SE, Oh HK, Kim JJ. Indolent infection in nonunion of the distal femur. Eur J Orthop Surg Traumatol. 25(3):549-553, 2015.
- 39) Kim JW, Byun SE, Chang JS. The clinical outcomes of early internal fixation for undisplaced femoral neck fractures and early full weight-bearing in elderly patients. Arch Orthop Trauma Surg. 134(7):941-946, 2014.

- 40) Park JH, Shon HC, Chang JS, Kim CH, Byun SE, Han BR, Kim JW. How can MRI change the treatment strategy in apparently isolated greater trochanteric fracture? *Injury*. 2018;49(4):824-828.
- 41) Sim JA, Joo YB, Choi W, Byun SE, Na YG, Shon OJ, Kim JW. Patellar fractures in elderly patients: a multicenter computed tomography-based analysis. *Arch Orthop Trauma Surg*. 2020. [Epub ahead of print]
- 42) Cho WS, Byun SE, Yoon YS, Sun JH. The effect of a lumbar spinal lesion on the clinical results of total knee arthroplasty. *J Korean Orthop Assoc*. 2013 48(1):1-8.

Feb, 20<sup>th</sup>, 2024

Seong-Eun Byun, M.D., Ph.D.

A handwritten signature in black ink, appearing to read 'Seong-Eun Byun', is written on a light yellow rectangular background.