

NAME Hyoungmin Kim, MD, PhD	POSITION TITLE Clinical Professor
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EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Seoul National University	BA	1998	Pre-medicine
Seoul National University College of Medicine, Seoul, South Korea	MD	2002	Medicine
Seoul National University College of Medicine, Seoul, South Korea	PhD	2016	Medicine

A. Positions and Honors:

Positions and Employment

- Sep 2021 – Present, Clinical Professor, Department of Orthopedic Surgery, Seoul National University Hospital and Seoul National University College of Medicine, Seoul, South Korea
- Mar 2016 – Aug 2021, Clinical Associate Professor, Department of Orthopedic Surgery, Seoul National University Hospital and Seoul National University College of Medicine, Seoul, South Korea
- Mar 2012 – Feb 2016, Clinical Assistant Professor, Department of Orthopedic Surgery, Seoul National University Hospital and Seoul National University College of Medicine, Seoul, South Korea
- May 2011 – Feb 2012, Clinical Fellow & Instructor, Department of Orthopedic Surgery and Scoliosis Center, Asan Medical Center, Seoul, South Korea
- May 2010 – Apr 2011, Clinical Fellow & Instructor, Spine Surgery Service, Department of Orthopedic Surgery, Seoul National University Hospital, Seoul, South Korea
- May 2007 – Apr 2010, Public Health Service Physician for substitute of obligatory military service, Gyeonggi-province, South Korea
- Mar 2003 – Feb 2007, Resident, Department of Orthopedic Surgery, Seoul National University Hospital, Seoul, South Korea
- Mar 2002 – Feb 2003, Intern, Seoul National University Hospital

Visited Spine Centers

- Mar 2015 – April 2015, Visiting Professor, Department of Orthopaedic Surgery, Keio University, Tokyo, Japan
- Jan 2018 – March 2018, Visiting Professor, Chirurgien orthopédiste et traumatologue, Centre Médico-Chirurgical de Réadaptation (CMCR) des Massues, Lyon, France
- April 2018 – June 2018, Visiting Professor, Department of Neurosurgery, National Hospital for Neurology and Neurosurgery, University College London Institute of Neurology, London, United Kingdom
- July 2018 – June 2019, Visiting Professor, Department of Orthopedic Surgery, The Daniel and Jane Och Spine Hospital, Morgan Stanley Children's Hospital, New York Presbyterian/Columbia University Medical Center, New York, United States

Other Experience and Professional Memberships

Since 2018, Member of Cervical Spine Research Society
Since 2016, Candidate Fellow of Scoliosis Research Society
Since 2015, Member of Cervical Spine Research Society, Asia-Pacific section
Since 2012, Member of North American Spine Society
Since 2012, Member of Korean Society of Spinal Tumor
Since 2012, Member of Korean Society of Spine Surgery
Since 2007, Member of Korean Orthopaedic Association

Honors and Awards

May 2015, Young Scholar Award of the Year, Korean Society of Spine Surgery, South Korea
Dec 2012, Best Clinical Post Award, Cervical Spine Research Society, Chicago

B. Selected Publications or Manuscripts in Press (in chronological order)

Book-Chapters

Surgical Failures Mechanisms and Their Treatment, Sagittal Balance of the Spine, 2019, New York: Thieme Medical Pub., 2019
Congenital Spinal Deformity, Textbook of Spinal Surgery, 4th Ed., Seoul: New Medical Pub., 2017, ISBN 978-9-88159-94-1
Subaxial Cervical Spine Injuries, Textbook of Fractures and Joint Injuries, 4th Ed., Seoul: Koonja Pub., 2016, ISBN 9788962784091(8962784092)
Spinal Deformity, Orthopaedics for Medical Students, 3rd Ed., Seoul: Koonja Pub., 2016, ISBN 8962785420(9788962785425)
Spinal Deformity, Orthopaedics for Medical Students, 2nd Ed., Seoul: Koonja Pub., 2016, ISBN 9788962785425(8962785420)
Congenital Spinal Anomaly, Orthopaedics Vol. 2, 7th Ed., Seoul: New Medical Pub., 2013, ISBN 978898815997

Peer-Reviewed Publications: Spine

Chang SY, Kim JH, Mok S, Chang BS, Lee CK, **Kim H.** The Use of High-Density Pedicle Screw Construct with Direct Vertebral Derotation of the Lowest Instrumented Vertebra in Selective Thoracic Fusion for Adolescent Idiopathic Scoliosis: Comparison of Two Surgical Strategies. Asian Spine J. 2023 Jan 10. doi: 10.31616/asj.2022.0111. Online ahead of print. PMID: 36625017

Son HJ, Chang BS, Chang SY, Park HS, **Kim H.** Anterior Cervical Discectomy and Fusion Using Escherichia coli-Derived Recombinant Human Bone Morphogenetic Protein-2: A Pilot Study. Clin Orthop Surg. 2022 Dec;14(4):557-563. doi: 10.4055/cios22032. Epub 2022 Sep 28. PMID: 36518942

Cho M, You KH, Yeom JS, **Kim H,** Lee KB, Cho JH, Yang JJ, Lee JH. Mid-term efficacy and safety of Escherichia coli-derived rhBMP-2/hydroxyapatite carrier in lumbar posterolateral fusion: a randomized, multicenter study. Eur Spine J. 2022 Nov 17. doi: 10.1007/s00586-022-07440-3

Hong SH, Chang BS, **Kim H,** Kang DH, Chang SY. An Updated Review on the Treatment Strategy for Spinal Metastasis from the Spine Surgeon's Perspective. Asian Spine J. 2022 Oct;16(5):799-811. doi: 10.31616/asj.2022.0367

- Chang SY, Lee WS, Mok S, Park SC, **Kim H**, Chang BS. Anterior Thigh Pain Following Minimally Invasive Oblique Lateral Interbody Fusion: Multivariate Analysis from a Prospective Case Series. *Clin Orthop Surg*. 2022 Sep;14(3):401-409. doi: 10.4055/cios21250.
- Mok S, Chang SY, Park SC, Chae I, **Kim H**, Chang BS, Cho TJ, Ko JM. Radiographic Factors for Progression of Thoracolumbar Kyphosis in Achondroplasia Patients after Walking Age: A Generalized Estimating Equation Analysis. *Clin Orthop Surg*. 2022 Sep;14(3):410-416. doi: 10.4055/cios22046.
- Kang DH, Chang BS, **Kim H**, Hong SH, Chang SY. Separation surgery followed by stereotactic ablative radiotherapy for metastatic epidural spinal cord compression: A systematic review and meta-analysis for local progression rate. *J Bone Oncol*. 2022 Aug 3;36:100450. doi: 10.1016
- Lee SH, Kim HY, Cho TJ, **Kim H**, Ko JM. Clinical characteristics and effects of enzyme replacement therapy with elosulfase alfa in Korean patients with mucopolysaccharidosis type IVA. *Mol Genet Metab Rep*. 2022 Apr 15;31:100869.
- Kim H**, Chang BS, Chang SY. Pearls and Pitfalls of Oblique Lateral Interbody Fusion: A Comprehensive Narrative Review. *Neurospine*. 2022 Mar;19(1):163-176.
- Lee DH, Park S, **Kim H**, Hwang CJ, Cho JH, Yang JJ, Lee CS. The Kappa Line as a Regional Modification of the K-line: A Predictor of Neurological Outcome and Indicator of the Adequate Level of Decompression in Selective Laminoplasty. *Clin Spine Surg*. 2022 Feb 1;35(1):E7-E12.
- Wi SM, Park SM, Chang SY, Lee J, Kim SM, Chang BS, **Kim H**. Surgical Causes of Significant Intraoperative Neuromonitoring Signal Changes in Three-Column Spinal Surgery. *Asian Spine J*. 2021 Dec;15(6):831-839
- Chang SY, Kim J, Kim Y, Im BE, Chang BS, Lee CK, **Kim H**. The Fate of Lumbar Facet Cyst After Indirect Decompression Using Oblique Lateral Interbody Fusion in Degenerative Spondylolisthesis. *Orthopedics*. 2021 Sep-Oct;44(5):306-312.
- Chang SY, Chae IS, Mok S, Park SC, Chang BS, **Kim H**. Can Indirect Decompression Reduce Adjacent Segment Degeneration and the Associated Reoperation Rate After Lumbar Interbody Fusion? A Systemic Review and Meta-analysis. *World Neurosurg*. 2021 Sep;153:e435-e445.
- Oh JS, **Kim H**, Jin US. The effect of delayed breast reconstruction after unilateral mastectomy on spine alignment. *Gland Surg*. 2021 Aug;10(8):2368-2377.
- Park SC, Chang SY, Gimm G, Mok S, **Kim H**, Chang BS, Lee CK. Involvement of L5-S1 level as an independent risk factor for adverse outcomes after surgical treatment of lumbar pyogenic spondylitis: A multivariate analysis. *J Orthop Surg (Hong Kong)*. 2021 May-Aug;29(2):23094990211035570.
- Kim H**, Chang SY, Son J, Mok S, Park SC, Chang BS. The Effect of Adding Biological Factors to the Decision-Making Process for Spinal Metastasis of Non-Small Cell Lung Cancer. *J Clin Med*. 2021 Mar 8;10(5):1119.
- Chang SY, Son J, Zheng GB, Chang BS, Lee CK, **Kim H**. Clinical outcomes of selective fusion for the thoracolumbar-lumbar curve in patients with Lenke type 6C adolescent idiopathic scoliosis: a preliminary study. *J Pediatr Orthop B*. 2021 May 1;30(3):211-217.
- Chang SY, Kim Y, Kim J, **Kim H**, Kim HJ, Yeom JS, Lee CK, Chang BS. Sagittal Alignment in Patients with Thoracic Myelopathy Caused by the Ossification of the Ligamentum Flavum:

- A Retrospective Matched Case-Control Study. *Spine (Phila Pa 1976)*. 2021 Mar 1;46(5):300-306.
- Cho TJ, Ko JM, **Kim H**, Shin HI, Yoo WJ, Shin CH. Management of Osteogenesis Imperfecta: A Multidisciplinary Comprehensive Approach. *Clin Orthop Surg*. 2020 Dec;12(4):417-429
- Park SC, Chang SY, Mok S, **Kim H**, Chang BS, Lee CK. Risk factors for postoperative ileus after oblique lateral interbody fusion: a multivariate analysis. *Spine J*. 2020 Oct 6:S1529-9430(20)31139-6.
- Cho TJ, Ko JM, **Kim H**, Shin HI, Yoo WJ, Shin CH. Management of Osteogenesis Imperfecta: A Multidisciplinary Comprehensive Approach. *Clin Orthop Surg*. 2020 Dec;12(4):417-429. doi: 10.4055/cios20060. Epub 2020 Nov 18.
- Kim YH, Kim J, Chang SY, **Kim H**, Chang BS. Treatment Strategy for Impending Instability in Spinal Metastases. *Clin Orthop Surg*. 2020 Sep;12(3):337-342
- Chang SY, Mok S, Park SC, Kim H, Chang BS. Treatment Strategy for Metastatic Spinal Tumors: A Narrative Review. *Asian Spine J*. 2020 Aug;14(4):513-525.
- Chang SY, Son J, Park SM, Chang BS, Lee CK, **Kim H**. Predictive Value of Comprehensive Geriatric Assessment on Early Postoperative Complications Following Lumbar Spinal Stenosis Surgery: A Prospective Cohort Study. *Spine (Phila Pa 1976)*. 2020 Nov 1;45(21):1498-1505.
- Chang SY, Nam Y, Lee J, Chang BS, Lee CK, **Kim H**. Clinical Significance of Radiologic Improvement Following Single-Level Oblique Lateral Interbody Fusion With Percutaneous Pedicle Screw Fixation. *Orthopedics*. 2020 Jul 1;43(4):e283-e290
- Kim J, Kim YH, Kim H, Chang BS, Lee CK, Chang SY. Kaposiform Hemangioendothelioma in Adolescent-Onset Scoliosis: A Case Report and Review of Literature. *Case Rep Orthop*. 2020 Feb 7;2020:1839053.
- Clinical Significance of Improved Intraoperative Neurophysiological Monitoring Signal during Spine Surgery: A Retrospective Study of a Single-Institution Prospective Cohort. *Wi SM, Lee HJ, Kang T, Chang SY, Kim SM, Chang BS, Lee CK, Kim H. Asian Spine J*. 2020 Feb;14(1):79-87.
- Park SJ, Lee CS, Chang BS, Kim YH, **Kim H**, Kim SI, Chang SY; Korean Spine Tumor Study Group. Rod fracture and related factors after total en bloc spondylectomy. *Spine J*. 2019 Oct;19(10):1613-1619.
- Wi SM, Lee HJ, Chang SY, Kwon OH, Lee CK, Chang BS, **Kim H**. Restoration of the Spinous Process Following Muscle-Preserving Posterior Lumbar Decompression via Sagittal Splitting of the Spinous Process. *Clin Orthop Surg*. 2019 Mar;11(1):95-102.
- Chang SY, Chang BS, Lee CK, **Kim H**. Remaining Systemic Treatment Options: A Valuable Predictor of Survival and Functional Outcomes after Surgical Treatment for Spinal Metastasis. *Orthop Surg*. 2019 Aug;11(4):552-559.
- Chang SY, Nam Y, Lee J, Lee NK, Chang BS, Lee CK, **Kim H**. Predicting the Natural Course of Hemivertebra in Early Childhood: Clinical Significance of Anteroposterior Discordance Based on Three-dimensional Analysis. *Spine (Phila Pa 1976)*. 2019 Dec 1;44(23):E1362-E1368.
- Chang SY, Nam Y, Lee J, Chang BS, Lee CK, **Kim H**. Impact of Preoperative Diagnosis on Clinical Outcomes of Oblique Lateral Interbody Fusion for Lumbar Degenerative Disease in a Single-institution Prospective Cohort. *Orthop Surg*. 2019 Feb;11(1):66-74.

- Park SM, Kim GU, Kim HJ, **Kim H**, Chang BS, Lee CK, Yeom JS. Low handgrip strength is closely associated with chronic low back pain among women aged 50 years or older: A cross-sectional study using a national health survey. *PLoS One*. 2018 Nov 26;13(11):e0207759.
- Park SM, Kim GU, Kim HJ, **Kim H**, Chang BS, Lee CK, Yeom JS. Walking more than 90minutes/week was associated with a lower risk of self-reported low back pain in persons over 50years of age: a cross-sectional study using the Korean National Health and Nutrition Examination Surveys. *Spine J*. 2019 May;19(5):846-852.
- Park SM, Shen F, Kim HJ, **Kim H**, Chang BS, Lee CK, Yeom JS. How Many Screws Are Necessary to Be Considered an Experienced Surgeon for Freehand Placement of Thoracolumbar Pedicle Screws?: Analysis Using the Cumulative Summation Test for Learning Curve. *World Neurosurg*. 2018 Oct;118:e550-e556.
- Chang SY, Ha JH, Seo SG, Chang BS, Lee CK, **Kim H**. Prognosis of Single Spinal Metastatic Tumors: Predictive Value of the Spinal Instability Neoplastic Score System for Spinal Adverse Events. *Asian Spine J*. 2018 Oct;12(5):919-926.
- Park JW, Park SM, Lee HJ, Lee CK, Chang BS, **Kim H**. Infection following percutaneous vertebral augmentation with polymethylmethacrylate. *Arch Osteoporos*. 2018 Apr 27;13(1):47.
- Park SM, Kim HJ, Jeong H, **Kim H**, Chang BS, Lee CK, Yeom JS. Longer sitting time and low physical activity are closely associated with chronic low back pain in population over 50 years of age: a cross-sectional study using the sixth Korea National Health and Nutrition Examination Survey. *Spine J*. 2018 Nov;18(11):2051-2058.
- Dho YS, **Kim H**, Wang KC, Kim SK, Lee JY, Shin HY, Park KD, Kang HJ, Kim IH, Park SH, Phi JH. Pediatric Spinal Epidural Lymphoma Presenting with Compressive Myelopathy: A Distinct Pattern of Disease Presentation. *World Neurosurg*. 2018 Jun;114:e689-e697.
- Park SM, Park C, **Kim H**, Kim HJ, Yeom JS, Lee CK, Chang BS. Is Redo Vertebroplasty an Effective Treatment on the Same Vertebra? *Cardiovasc Intervent Radiol*. 2018 Jul;41(7):1058-1066.
- Park SM, Kim HJ, Jang S, **Kim H**, Chang BS, Lee CK, Yeom JS. Depression is Closely Associated With Chronic Low Back Pain in Patients Over 50 Years of Age: A Cross-sectional Study Using the Sixth Korea National Health and Nutrition Examination Survey (KNHANES VI-2). *Spine (Phila Pa 1976)*. 2018 Sep 15;43(18):1281-1288.
- Park SM, Park JW, **Kim H**, Kim HJ, Yeom JS, Lee CK, Chang BS. Morphological changes of vertebral compression fracture with intra-vertebral cleft treated with percutaneous vertebroplasty. *J Orthop Sci*. 2018 Mar;23(2):237-247.
- Park JW, Park SM, Lee HJ, Lee CK, Chang BS, **Kim H**. Mortality following benign sacral insufficiency fracture and associated risk factors. *Arch Osteoporos*. 2017 Nov 9;12(1):100.
- Yoon DH, Bin SI, Chan SK, Chung CK, In Y, **Kim H**, Lichauco JJ, Mok CC, Moon YW, Ng TK, Penserga EG, Shin DA, You D, Moon H. Effectiveness and tolerability of transdermal buprenorphine patches: a multicenter, prospective, open-label study in Asian patients with moderate to severe chronic musculoskeletal pain. *BMC Musculoskelet Disord*. 2017 Aug 4;18(1):337.
- Cho JH, Lee JH, Yeom JS, Chang BS, Yang JJ, Koo KH, Hwang CJ, Lee KB, Kim HJ, Lee CK, **Kim H**, Suk KS, Nam WD, Han J. Efficacy of Escherichia coli-derived recombinant human

bone morphogenetic protein-2 in posterolateral lumbar fusion: an open, active-controlled, randomized, multicenter trial. *Spine J.* 2017 Dec;17(12):1866-1874

Lee DH, **Kim H**, Lee CS, Hwang CJ, Cho JH, Cho SK. Clinical and radiographic outcomes following hinge fracture during open-door cervical laminoplasty. *J Clin Neurosci.* 2017 Sep;43:72-76.

Park SM, Park JW, Lee HJ, Choi JY, Yoo HJ, Lee CK, Chang BS, **Kim H**. Diagnostic Value of Technetium-99m Bone Scintigraphy in the Detection of Cervical Spine Metastases in Oncological Patients. *Spine (Phila Pa 1976).* 2017 Nov 15;42(22):1699-1705

Chang BS, Jung JH, Park SM, Lee SH, Lee CK, **Kim H**. Structural Femoral Shaft Allografts for Anterior Spinal Column Reconstruction in Osteoporotic Spines. *Biomed Res Int.* 2016;2016:8681957.

Ha JH, Kim SH, Park SM, Lee CK, Chang BS, **Kim H**. Geriatric risk in the surgical management of infectious spondylitis. *Geriatr Gerontol Int.* 2017 Jun;17(6):984-990.

H Kim, CK Lee, BS Chang. Considerations in Surgical Treatment for Osteoporotic Spinal Fracture: Surgical Indication, Approach, Fixation, and Graft Material - Review Article -. *J Korean Soc Spine Surg.* 2016 Mar;23(1):34-45

Lee CS, Ha JK, Kim DG, **Kim H**, Hwang CJ, Lee DH, Cho JH. The clinical importance of sacral slanting in patients with adolescent idiopathic scoliosis undergoing surgery. *Spine J.* 2015 May 1;15(5):834-40.

Lee CS, Lee DH, Hwang CJ, **Kim H**, Noh H. The effect of a mismatched center of rotation on the clinical outcomes and flexion-extension range of motion: lumbar total disk replacement using mobi-disc at a 5.5-year follow-up. *J Spinal Disord Tech.* 2014 May;27(3):148-53.

Kim H, Lee CK, Yeom JS, Lee JH, Cho JH, Shin SI, Lee HJ, Chang BS. Asymmetry of the cross-sectional area of paravertebral and psoas muscle in patients with degenerative scoliosis. *Eur Spine J.* 2013 Jun;22(6):1332-8.

Lee CS, Noh H, Lee DH, Hwang CJ, **Kim H**, Cho SK. Analysis of sagittal spinal alignment in 181 asymptomatic children. *J Spinal Disord Tech.* 2012 Dec;25(8):E259-63.

Kim H, Lee CK, Yeom JS, Lee JH, Lee KH, Chang BS. The efficacy of porous hydroxyapatite bone chip as an extender of local bone graft in posterior lumbar interbody fusion. *Eur Spine J.* 2012 Jul;21(7):1324-30.

Peer-Reviewed Publications: Non-Spine

Lee S, **Kim H**, Jang J, Seong SC, Lee MC. Intraoperative correlation analysis between tunnel position and translational and rotational stability in single- and double-bundle anterior cruciate ligament reconstruction. *Arthroscopy.* 2012 Oct;28(10):1424-36.

Lee S, **Kim H**, Jang J, Seong SC, Lee MC. Comparison of anterior and rotatory laxity using navigation between single- and double-bundle ACL reconstruction: prospective randomized trial. *Knee Surg Sports Traumatol Arthrosc.* 2012 Apr;20(4):752-61.

C. Presentations

Peer-Reviewed Poster or Podium Presentations

Podium 2016 APOA-APSS, Melbourne Surgical Treatment of Primary Spinal Sarcoma
Podium 2015 IMAST, Kuala Lumpur Geriatric Risk in the Surgical Management of Infectious Spondylitis
Poster 2015 CSRS-AP, Yokohama Complete en bloc resection of primary synovial sarcoma involving cervical spine – a case report and review of literature
Poster 2013 CSRS, LA Diagnostic Value of Bone Scintigraphy to Detect Metastasis in the Cervical Spine
Poster 2013, IMAST, Spain The Predictive Value of the Spinal Instability Neoplastic Score (SINS) System for Adverse Events of Pathologic Fracture and Spinal Cord Compression in Patients with Single Spinal Metastasis.
Poster 2012 CSRS, Chicago The Fate of Hinge Fracture Following Cervical Open Door Laminoplasty
Poster 2012 CSRS, Chicago Kappa-line : A Predictor of Neurologic Outcome After Cervical Laminoplasty
Above Listed Presentations in International Meetings Only

D. Grants Received (in chronological order)

Aug 2016, Aisa-Pacific Spinal Deformity Scholarship, Scoliosis Research Society, United States

E. Spine-Related Meetings, Conventions and Symposiums Attended

Mar 2016, Asia Pacific Orthopaedic Association – Asia Pacific Spine Society, Melbourne
Jul 2015, IMAST, Kuala Lumpur, Malaysia
Mar 2015, CSRS-AP, Yokohama, Japan
Dec 2013, CSRS, LA
Sep 2013, SRS, Lyon
Aug 2013, Pacific Asia Minimal Invasive Spinal Surgery, Miyazaki, Japan
Jul 2013, Complex Spinal Tumor Course, Memphis (Medtronic sponsored)
Dec 2012, CSRS, Chicago
Sep 2012, SRS, Chicago
Jul 2012, Advances in Spine Trauma and Tumor Course, Bangkok, Thailand (Medtronic sponsored)
Oct 2010, AOSpine Global Symposium, Seoul, Korea
Jun 2010, AOSpine Principle & ORP Course, Seoul, Korea
Above Listed Attendance at International Meetings Only