Brian D Snyder

List of Publications by Year
in descending order

69 papers	2,726 citations	331670 21 h-index	189892 50 g-index
70 all docs	70 docs citations	70 times ranked	2723 citing authors

#	Article	IF	Citations
1	Diagnosis and management of spinal muscular atrophy: Part 1: Recommendations for diagnosis, rehabilitation, orthopedic and nutritional care. Neuromuscular Disorders, 2018, 28, 103-115.	0.6	584
2	Diagnosis and management of spinal muscular atrophy: Part 2: Pulmonary and acute care; medications, supplements and immunizations; other organ systems; and ethics. Neuromuscular Disorders, 2018, 28, 197-207.	0.6	421
3	Development and Initial Validation of the Classification of Early-Onset Scoliosis (C-EOS). Journal of Bone and Joint Surgery - Series A, 2014, 96, 1359-1367.	3.0	226
4	Quantitative micro-computed tomography: A non-invasive method to assess equivalent bone mineral density. Bone, 2008, 43, 302-311.	2.9	113
5	Effect of Contrast Agent Charge on Visualization of Articular Cartilage Using Computed Tomography: Exploiting Electrostatic Interactions for Improved Sensitivity. Journal of the American Chemical Society, 2009, 131, 13234-13235.	13.7	90
6	Cationic contrast agents improve quantification of glycosaminoglycan (GAG) content by contrast enhanced CT imaging of cartilage. Journal of Orthopaedic Research, 2011, 29, 704-709.	2.3	90
7	Cortical Somatosensory Reorganization in Children with Spastic Cerebral Palsy: A Multimodal Neuroimaging Study. Frontiers in Human Neuroscience, 2014, 8, 725.	2.0	90
8	CT-based Structural Rigidity Analysis Is More Accurate Than Mirels Scoring for Fracture Prediction in Metastatic Femoral Lesions. Clinical Orthopaedics and Related Research, 2016, 474, 643-651.	1.5	84
9	Predicting Fracture Through Benign Skeletal Lesions with Quantitative Computed Tomography. Journal of Bone and Joint Surgery - Series A, 2006, 88, 55.	3.0	73
10	Effect of Hip Reconstructive Surgery on Health-Related Quality of Life of Non-Ambulatory Children with Cerebral Palsy. Journal of Bone and Joint Surgery - Series A, 2016, 98, 1190-1198.	3.0	66
11	Proximal Femoral Varus Derotation Osteotomy in Children with Cerebral Palsy. Journal of Bone and Joint Surgery - Series A, 2015, 97, 2024-2031.	3.0	63
12	Noninvasive Prediction of Fracture Risk in Patients with Metastatic Cancer to the Spine. Clinical Cancer Research, 2009, 15, 7676-7683.	7.0	62
13	Reorganization of the somatosensory cortex in hemiplegic cerebral palsy associated with impaired sensory tracts. NeuroImage: Clinical, 2018, 17, 198-212.	2.7	46
14	Contrastâ€enhanced CT using a cationic contrast agent enables nonâ€destructive assessment of the biochemical and biomechanical properties of mouse tibial plateau cartilage. Journal of Orthopaedic Research, 2016, 34, 1130-1138.	2.3	45
15	Treatment Planning and Fracture Prediction in Patients with Skeletal Metastasis with CT-Based Rigidity Analysis. Clinical Cancer Research, 2015, 21, 2514-2519.	7.0	43
16	Active agents, biomaterials, and technologies to improve biolubrication and strengthen soft tissues. Biomaterials, 2018, 181, 210-226.	11.4	42
17	Assessing Cartilage Biomechanical Properties: Techniques for Evaluating the Functional Performance of Cartilage in Health and Disease. Annual Review of Biomedical Engineering, 2017, 19, 27-55.	12.3	33
18	Evaluating the Discriminant Validity of the Pediatric Evaluation of Disability Inventory: Computer Adaptive Test in Children With Cerebral Palsy. Physical Therapy, 2017, 97, 669-676.	2.4	30

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19	Health-Related Quality of Life and Care Giver Burden Following Spinal Fusion in Children With Cerebral Palsy. Spine, 2017, 42, E733-E739.	2.0	27
20	Differences in healthâ€related quality of life and caregiver burden after hip and spine surgery in nonâ€ambulatory children with severe cerebral palsy. Developmental Medicine and Child Neurology, 2016, 58, 298-305.	2.1	26
21	Implementing a Multidisciplinary Clinical Pathway Can Reduce the Deep Surgical Site Infection Rate After Posterior Spinal Fusion in High-Risk Patients. Spine Deformity, 2019, 7, 33-39.	1.5	25
22	Measuring the Reliability and Construct Validity of the Pediatric Evaluation of Disability Inventoryâ€“Computer Adaptive Test (PEDI-CAT) in Children With Cerebral Palsy. Archives of Physical Medicine and Rehabilitation, 2019, 100, 45-51.	0.9	25
23	Mega macromolecules as single molecule lubricants for hard and soft surfaces. Nature Communications, 2020, 11, 2139.	12.8	25
24	Mendelian etiologies identified with whole exome sequencing in cerebral palsy. Annals of Clinical and Translational Neurology, 2022, 9, 193-205.	3.7	23
25	A synthetic polymeric biolubricant imparts chondroprotection in a rat meniscal tear model. Biomaterials, 2018, 182, 13-20.	11.4	22
26	A FoxA2+ long-term stem cell population is necessary for growth plate cartilage regeneration after injury. Nature Communications, 2022, 13, 2515.	12.8	22
27	Evaluation of musculoskeletal phenotype of the G608G progeria mouse model with lonafarnib, pravastatin, and zoledronic acid as treatment groups. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12029-12040.	7.1	20
28	Does CT-based Rigidity Analysis Influence Clinical Decision-making in Simulations of Metastatic Bone Disease?. Clinical Orthopaedics and Related Research, 2016, 474, 652-659.	1.5	19
29	Maturation of Corticospinal Tracts in Children With Hemiplegic Cerebral Palsy Assessed by Diffusion Tensor Imaging and Transcranial Magnetic Stimulation. Frontiers in Human Neuroscience, 2019, 13, 254.	2.0	18
30	Murine articular cartilage morphology and compositional quantification with high resolution cationic contrastâ€enhanced Î¼CT. Journal of Orthopaedic Research, 2017, 35, 2740-2748.	2.3	17
31	Computed tomography-based rigidity analysis: a review of the approach in preclinical and clinical studies. BoneKEy Reports, 2014, 3, 587.	2.7	16
32	Assessment of healthy trapeziometacarpal cartilage properties using indentation testing and contrast-enhanced computed tomography. Clinical Biomechanics, 2019, 61, 181-189.	1.2	16
33	Part 1. Review and metaâ€analysis of studies on modulation of longitudinal bone growth and growth plate activity: A macroâ€scale perspective. Journal of Orthopaedic Research, 2021, 39, 907-918.	2.3	15
34	A Synthetic Bottle-Brush Polyelectrolyte Reduces Friction and Wear of Intact and Previously Worn Cartilage. ACS Biomaterials Science and Engineering, 2019, 5, 3060-3067.	5.2	13
35	Extent of Spine Deformity Predicts Lung Growth and Function in Rabbit Model of Early Onset Scoliosis. PLoS ONE, 2015, 10, e0136941.	2.5	13
36	Impact of Non-medical Out-of-pocket Expenses on Families of Children With Cerebral Palsy Following Orthopaedic Surgery. Journal of Pediatric Nursing, 2017, 37, 101-107.	1.5	12

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37	Whatâ€™s New in Pediatric Spine Growth Modulation and Implant Technology for Early-Onset Scoliosis?. Journal of Pediatric Orthopaedics, 2018, 38, e3-e13.	1.2	10
38	Why Irrigate for the Same Contamination Rate: Wound Contamination in Pediatric Spinal Surgery Using Betadine Versus Saline. Journal of Pediatric Orthopaedics, 2020, 40, e994-e998.	1.2	10
39	The Use of Tranexamic Acid (TXA) in Neuromuscular Hip Reconstruction: Can We Alter the Need for Blood Transfusion?. Journal of Pediatric Orthopaedics, 2020, 40, e766-e771.	1.2	10
40	Altered White Matter Connectivity Associated with Intergyral Brain Disorganization in Hemiplegic Cerebral Palsy. Neuroscience, 2019, 399, 146-160.	2.3	9
41	Healthâ€related quality of life and caregiver burden after hip reconstruction and spinal fusion in children with spastic cerebral palsy. Developmental Medicine and Child Neurology, 2022, 64, 80-87.	2.1	9
42	Microstructural, Densitometric and Metabolic Variations in Bones from Rats with Normal or Altered Skeletal States. PLoS ONE, 2013, 8, e82709.	2.5	9
43	A Tissueâ€Penetrating Double Network Restores the Mechanical Properties of Degenerated Articular Cartilage. Angewandte Chemie, 2016, 128, 4298-4302.	2.0	8
44	Quantitative Evaluation of Equine Articular Cartilage Using Cationic Contrast-Enhanced Computed Tomography. Cartilage, 2021, 12, 211-221.	2.7	8
45	Part 2. Review and metaâ€analysis of studies on modulation of longitudinal bone growth and growth plate activity: A microâ€scale perspective. Journal of Orthopaedic Research, 2021, 39, 919-928.	2.3	8
46	Raman needle arthroscopy for in vivo molecular assessment of cartilage. Journal of Orthopaedic Research, 2022, 40, 1338-1348.	2.3	8
47	In-vivo cervical spine FSU dynamic motion measured by dual ultrasound: The effect of muscle activation. , 2016, , .		7
48	Combined preoperative traction with instrumented posterior occipitocervical fusion for severe ventral brainstem compression secondary to displaced os odontoideum: technical report of 2 cases. Journal of Neurosurgery: Pediatrics, 2016, 18, 724-729.	1.3	7
49	Surgical Treatment of Developmental Spondylolisthesis: Contemporary Series With a Two-Surgeon Team. Spine Deformity, 2019, 7, 275-285.	1.5	7
50	Off-Label Use of Pediatric Orthopaedic Devices: Important Issues for the Future. Journal of Bone and Joint Surgery - Series A, 2014, 96, e21.	3.0	6
51	Thoracic vertebral morphology in normal and scoliosis deformity in skeletally immature rabbits: A Longitudinal study. JOR Spine, 2020, 3, e1118.	3.2	6
52	Scoliosis with Chiari I malformation without associated syringomyelia. Spine Deformity, 2021, 9, 1105-1113.	1.5	6
53	High incidence of fracture events in patients with Long-Gap Esophageal Atresia (LGEA): A retrospective review prompting implementation of standardized protocol. Bone Reports, 2015, 3, 1-4.	0.4	5
54	dGEMRIC and CECT Comparison of Cationic and Anionic Contrast Agents in Cadaveric Human Metacarpal Cartilage. Journal of Orthopaedic Research, 2020, 38, 719-725.	2.3	5

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55	Expansion Thoracoplasty in Rabbit Model. Spine, 2018, 43, E877-E884.	2.0	5
56	Contrast-enhanced CT imaging as a non-destructive tool for ex vivo examination of the biochemical content and structure of the human meniscus. Journal of Orthopaedic Research, 2017, 35, 1018-1028.	2.3	4
57	Cationic contrastâ€enhanced computed tomography distinguishes between reparative, degenerative, and healthy equine articular cartilage. Journal of Orthopaedic Research, 2021, 39, 1647-1657.	2.3	4
58	Tantalum Oxide Nanoparticles for the Quantitative Contrast-Enhanced Computed Tomography of Ex Vivo Human Cartilage: Assessment of Biochemical Composition and Biomechanics. ACS Nano, 2021, 15, 19175-19184.	14.6	4
59	Contrastâ€Enhanced Computed Tomography Scoring System for Distinguishing Early Osteoarthritis Disease States: A Feasibility Study. Journal of Orthopaedic Research, 2019, 37, 2138-2148.	2.3	3
60	Mortality in Early-Onset Scoliosis During the Growth-friendly Surgery Era. Journal of Pediatric Orthopaedics, 2022, 42, 131-137.	1.2	3
61	Non-Invasive Prediction of Fracture Risk Due to Benign and Metastatic Skeletal Defects. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	1
62	Protocol development for synchrotron contrast-enhanced CT of human hip cartilage. Medical Engineering and Physics, 2019, 73, 1-8.	1.7	1
63	Outcomes and Complications in Management of Congenital Myopathy Early-Onset Scoliosis. Journal of Pediatric Orthopaedics, 2021, Publish Ahead of Print, 531-536.	1.2	1
64	Noninvasive Imaging Technique Predicts Failure Load of the Femur with Simulated Osteolytic Defects. Key Engineering Materials, 2006, 326-328, 811-814.	0.4	0
65	Evaluation of in-vivo kinematics of cervical spines by co-registering dynamic ultrasound with MRI. , 2017, , .		0
66	Evaluation of in-vivo kinematics of cervical spines by co-registering dynamic ultrasound with MRI. , 2017, , .		0
67	Diagnosing and treating native spinal and pelvic osteomyelitis in adolescents. Spine Deformity, 2020, 8, 1001-1008.	1.5	0
68	Variability in Antibiotic Treatment of Pediatric Surgical Site Infection After Spinal Fusion at A Single Institution. Journal of Pediatric Orthopaedics, 2021, 41, e380-e385.	1.2	0
69	Influence of fixation on CA4+ contrast enhanced microCT of articular cartilage and subsequent feasibility for histological evaluation. American Journal of Translational Research (discontinued), 2021, 13, 8921-8937.	0.0	0