

# Avinash G Patwardhan

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8277268/publications.pdf>

Version: 2024-02-01

88  
papers

2,817  
citations

185998

28  
h-index

182168

51  
g-index

89  
all docs

89  
docs citations

89  
times ranked

1558  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of K-wire Reuse and Drill Mode on Heat Generation in Bone. <i>Hand</i> , 2023, 18, 314-319.	0.7	3
2	Characterising acetabular component orientation with pelvic motion during total hip arthroplasty. <i>HIP International</i> , 2021, 31, 743-750.	0.9	6
3	Loading of the lumbar spine during transition from standing to sitting: effect of fusion versus motion preservation at L4-L5 and L5-S1. <i>Spine Journal</i> , 2021, 21, 708-719.	0.6	13
4	Osteoinductivity and biomechanical assessment of a 3D printed demineralized bone matrix-ceramic composite in a rat spine fusion model. <i>Acta Biomaterialia</i> , 2021, 127, 146-158.	4.1	18
5	Biomechanics of Cervical Disc Arthroplasty Devices. <i>Neurosurgery Clinics of North America</i> , 2021, 32, 493-504.	0.8	5
6	Prosthesis design influences segmental contribution to total cervical motion after cervical disc arthroplasty. <i>European Spine Journal</i> , 2020, 29, 2713-2721.	1.0	23
7	Effectiveness of cervical zero profile integrated cage with and without supplemental posterior Interfacet stabilization. <i>Clinical Biomechanics</i> , 2020, 78, 105078.	0.5	1
8	Estimation of Trunk Muscle Forces Using a Bio-Inspired Control Strategy Implemented in a Neuro-Osteo-Ligamentous Finite Element Model of the Lumbar Spine. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 949.	2.0	3
9	Biomechanics of Cervical Disc Arthroplasty—A Review of Concepts and Current Technology. <i>International Journal of Spine Surgery</i> , 2020, 14, S14-S28.	0.7	23
10	Neutral cervical sagittal vertical axis and cervical lordosis vary with T1 tilt. <i>Journal of Neurosurgery: Spine</i> , 2020, 33, 158-164.	0.9	3
11	Anatomic considerations in headaches associated with cervical sagittal imbalance: A cadaveric biomechanical study. <i>Journal of Clinical Neuroscience</i> , 2019, 65, 140-144.	0.8	7
12	The Effect of Proton Pump Inhibitors on Bone Formation in a Rat Spinal Arthrodesis Model. <i>Spine</i> , 2019, 44, E815-E822.	1.0	4
13	Motion response of a polycrystalline diamond adaptive axis of rotation cervical total disc arthroplasty. <i>Clinical Biomechanics</i> , 2019, 62, 34-41.	0.5	4
14	Biomechanical Analysis of Stand-alone Lateral Lumbar Interbody Fusion for Lumbar Adjacent Segment Disease. <i>Cureus</i> , 2019, 11, e6208.	0.2	7
15	Cervical sagittal balance: a biomechanical perspective can help clinical practice. <i>European Spine Journal</i> , 2018, 27, 25-38.	1.0	90
16	Kinematic assessment of an elastic-core cervical disc prosthesis in one and two-level constructs. <i>JOR Spine</i> , 2018, 1, e1040.	1.5	12
17	Thursday, September 27, 2018 3:35 PM—5:05 PM Section on Motion Technology Abstract Presentations. <i>Spine Journal</i> , 2018, 18, S66-S67.	0.6	1
18	Biomechanics of an Expandable Lumbar Interbody Fusion Cage Deployed Through Transforaminal Approach. <i>International Journal of Spine Surgery</i> , 2018, 12, 520-527.	0.7	16

#	ARTICLE	IF	CITATIONS
19	Does Resection of the Posterior Longitudinal Ligament Affect the Stability of Cervical Disc Arthroplasty?. <i>International Journal of Spine Surgery</i> , 2018, 12, 285-294.	0.7	8
20	Cervical Spine Muscle-Tendon Unit Length Differences Between Neutral and Forward Head Postures: Biomechanical Study Using Human Cadaveric Specimens. <i>Physical Therapy</i> , 2017, 97, 756-766.	1.1	40
21	Biomechanical Stability Analysis of a Stand-alone Cage, Static and Rotational-dynamic Plate in a Two-level Cervical Fusion Construct. <i>Orthopaedic Surgery</i> , 2017, 9, 290-295.	0.7	7
22	A Biomechanical Comparison of Limited Open Versus Krackow Repair for Achilles Tendon Rupture. <i>Foot &amp; Ankle Orthopaedics</i> , 2017, 2, 247301141771543.	0.1	4
23	Effect of L4-Sacrum Fusion Alignment on Biomechanics of the Proximal Lumbar Segments in Sitting Postures. <i>Spine Journal</i> , 2017, 17, S118-S119.	0.6	2
24	Interpolation of three dimensional kinematics with dual-quaternions. <i>Journal of Biomechanics</i> , 2017, 51, 105-110.	0.9	4
25	Biomechanics of an Expandable Lumbar Interbody Fusion Cage Deployed Through Transforaminal Approach. <i>International Journal of Spine Surgery</i> , 2017, 11, 24.	0.7	12
26	Bilateral posterior cervical cages provide biomechanical stability: assessment of stand-alone and supplemental fixation for anterior cervical discectomy and fusion. <i>Medical Devices: Evidence and Research</i> , 2016, Volume 9, 223-230.	0.4	14
27	Is Cervical Sagittal Imbalance a Risk Factor for Adjacent Segment Pathomechanics After Multilevel Fusion?. <i>Spine</i> , 2016, 41, E580-E588.	1.0	26
28	Effects of motion segment level, Pfirrmann intervertebral disc degeneration grade and gender on lumbar spine kinematics. <i>Journal of Orthopaedic Research</i> , 2016, 34, 1389-1398.	1.2	48
29	A biomechanical comparison study of a modern fibular nail and distal fibular locking plate in AO/OTA 44C2 ankle fractures. <i>Journal of Orthopaedic Surgery and Research</i> , 2016, 11, 100.	0.9	48
30	Are Collapsed Cervical Discs Amenable to Total Disc Arthroplasty?. <i>Spine</i> , 2016, 41, 1866-1875.	1.0	5
31	Dimensions of the cervical neural foramen in conditions of spinal deformity: an ex vivo biomechanical investigation using specimen-specific CT imaging. <i>European Spine Journal</i> , 2016, 25, 2155-2165.	1.0	14
32	Development of an attention-touch control for manual cervical distraction: a pilot randomized clinical trial for patients with neck pain. <i>Trials</i> , 2015, 16, 259.	0.7	9
33	Postural Consequences of Cervical Sagittal Imbalance. <i>Spine</i> , 2015, 40, 783-792.	1.0	56
34	Three-Dimensional Computed Tomography-Based Specimen-Specific Kinematic Model for Ex Vivo Assessment of Lumbar Neuroforaminal Space. <i>Spine</i> , 2015, 40, E814-E822.	1.0	18
35	Clinician proficiency in delivering manual treatment for neck pain within specified force ranges. <i>Spine Journal</i> , 2015, 15, 570-576.	0.6	6
36	Unilateral absence of the neural arch in the subaxial cervical spine. <i>Spine Journal</i> , 2015, 15, e23-e24.	0.6	1

#	ARTICLE	IF	CITATIONS
37	Biomechanical Effects of a Unilateral Approach to Minimally Invasive Lumbar Decompression. PLoS ONE, 2014, 9, e92611.	1.1	32
38	Quantification of Shear Stresses Within a Transtibial Prosthetic Socket. Foot and Ankle International, 2014, 35, 779-782.	1.1	8
39	Doctors of Chiropractic Proficiency in Delivering Prescribed Traction Forces During Manual Cervical Distraction of Neck Pain Patients. Journal of Alternative and Complementary Medicine, 2014, 20, A48-A49.	2.1	1
40	Biomechanics of thoracolumbar burst fractures: Methods of induction and treatments. Journal of Clinical Neuroscience, 2014, 21, 2059-2064.	0.8	12
41	Biomechanical Evaluation of a Low-Profile, Anchored Cervical Interbody Spacer Device at the Index Level or Adjacent to Plated Fusion. Spine, 2014, 39, E763-E769.	1.0	7
42	Compressive Preload Reduces Segmental Flexion Instability After Progressive Destabilization of the Lumbar Spine. Spine, 2014, 39, E74-E81.	1.0	15
43	Biomechanical Characteristics of an Integrated Lumbar Interbody Fusion Device. International Journal of Spine Surgery, 2014, 8, 1.	0.7	16
44	Parametric and cadaveric models of lumbar flexion instability and flexion restricting dynamic stabilization system. European Spine Journal, 2013, 22, 2710-2718.	1.0	9
45	Biomechanical evaluation of a low profile, anchored cervical interbody spacer device in the setting of progressive flexion-distraction injury of the cervical spine. European Spine Journal, 2013, 22, 135-141.	1.0	16
46	Development of Force-Feedback Technology for Training Clinicians to Deliver Manual Cervical Distraction. , 2013, , .		3
47	Asymmetric Motion Distribution Between Components of a Mobile-Core Lumbar Disc Prosthesis. Journal of Bone and Joint Surgery - Series A, 2012, 94, 846-854.	1.4	15
48	Neck Pain Participant's Perception of Traction Forces During Chiropractic Manual Cervical Distraction. , 2012, , .		1
49	Relaxation Response of Lumbar Segments Undergoing Disc-Space Distraction. Spine, 2012, 37, 733-740.	1.0	3
50	Effect of prosthesis endplate lordosis angles on L5-S1 kinematics after disc arthroplasty. European Spine Journal, 2012, 21, 585-591.	1.0	4
51	Kinematics of Cervical Total Disc Replacement Adjacent to a Two-Level, Straight Versus Lordotic Fusion. Spine, 2011, 36, 1359-1366.	1.0	36
52	Disc Replacement Adjacent to Cervical Fusion. Spine, 2011, 36, 1932-1939.	1.0	59
53	Effect of Increasing Implant Height on Lumbar Spine Kinematics and Foraminal Size Using the ProDisc-L Prosthesis. Spine, 2010, 35, 1777-1782.	1.0	20
54	Kinematics of total facet replacement (TFAS-TL) with total disc replacement. SAS Journal, 2009, 3, 85-90.	1.3	4

#	ARTICLE	IF	CITATIONS
55	Effect of the Total Facet Arthroplasty System after complete laminectomy-facetectomy on the biomechanics of implanted and adjacent segments. Spine Journal, 2009, 9, 96-102.	0.6	49
56	P47. Increasing Compressive Preload Reduces the Segmental Instability Produced by Progressive Destabilization. Spine Journal, 2009, 9, 139S.	0.6	1
57	P152. Limited Restoration of Primary and Coupled Motions in Lateral Bending and Axial Rotation after Total Disc Replacement: A Common Finding in Cervical Disc Prostheses. Spine Journal, 2009, 9, 192S-193S.	0.6	3
58	Anterior Cervical Discectomy and Fusion With a Locked Plate and Wedged Graft Effectively Stabilizes Flexion-Distraktion Stage-3 Injury in the Lower Cervical Spine. Spine, 2009, 34, E9-E15.	1.0	28
59	Effect of Two-Level Total Disc Replacement on Cervical Spine Kinematics. Spine, 2009, 34, E794-E799.	1.0	48
60	L5 to S1 Segmental Kinematics After Facet Arthroplasty. International Journal of Spine Surgery, 2009, 3, 50-58.	0.7	2
61	Altered disc pressure profile after an osteoporotic vertebral fracture is a risk factor for adjacent vertebral body fracture. European Spine Journal, 2008, 17, 1522-1530.	1.0	41
62	Quality of motion considerations in numerical analysis of motion restoring implants of the spine. Clinical Biomechanics, 2008, 23, 536-544.	0.5	48
63	Enhancing the Stability of Anterior Lumbar Interbody Fusion. Spine, 2008, 33, E38-E43.	1.0	37
64	What Is the Correlation of In Vivo Wear and Damage Patterns With In Vitro TDR Motion Response?. Spine, 2008, 33, 481-489.	1.0	36
65	The M6 Artificial Cervical Disc. , 2008, , 272-276.		3
66	Effect of Uncovertebral Joint Excision on the Motion Response of the Cervical Spine After Total Disc Replacement. Spine, 2007, 32, 2965-2969.	1.0	62
67	Novel model to analyze the effect of a large compressive follower pre-load on range of motions in a lumbar spine. Journal of Biomechanics, 2007, 40, 1326-1332.	0.9	189
68	Biomechanics of posterior dynamic stabilizing device (DIAM) after facetectomy and discectomy. Spine Journal, 2006, 6, 714-722.	0.6	67
69	Test Protocols for Evaluation of Spinal Implants. Journal of Bone and Joint Surgery - Series A, 2006, 88, 103-109.	1.4	199
70	TEST PROTOCOLS FOR EVALUATION OF SPINAL IMPLANTS. Journal of Bone and Joint Surgery - Series A, 2006, 88, 103-109.	1.4	3
71	Restoring geometric and loading alignment of the thoracic spine with a vertebral compression fracture: effects of balloon (bone tamp) inflation and spinal extension. Spine Journal, 2005, 5, 45-54.	0.6	32
72	Response of Charit total disc replacement under physiologic loads: prosthesis component motion patterns. Spine Journal, 2005, 5, 590-599.	0.6	96

#	ARTICLE	IF	CITATIONS
73	Effect of Supplemental Translaminar Facet Screw Fixation on the Stability of Stand-Alone Anterior Lumbar Interbody Fusion Cages Under Physiologic Compressive Preloads. <i>Spine</i> , 2004, 29, 1731-1736.	1.0	64
74	Flexion-Extension Response of the Thoracolumbar Spine Under Compressive Follower Preload. <i>Spine</i> , 2004, 29, E510-514.	1.0	34
75	Effect of compressive follower preload on the flexion-extension response of the human lumbar spine. <i>Journal of Orthopaedic Research</i> , 2003, 21, 540-546.	1.2	176
76	COMPRESSIVE PRELOAD IMPROVES THE STABILITY OF ANTERIOR LUMBAR INTERBODY FUSION CAGE CONSTRUCTS. <i>Journal of Bone and Joint Surgery - Series A</i> , 2003, 85, 1749-1756.	1.4	39
77	Biomechanical Comparison of Posterior and Transforaminal Interbody Fusion Constructs for the Degenerative Lumbar Spine. , 2002, , 397.		0
78	A Frontal Plane Model of the Lumbar Spine Subjected to a Follower Load: Implications for the Role of Muscles. <i>Journal of Biomechanical Engineering</i> , 2001, 123, 212-217.	0.6	53
79	An Experimental Model of Adult-Onset Slip Progression in Isthmic Spondylolisthesis. , 2001, , .		0
80	Load-Carrying Capacity of the Human Cervical Spine in Compression Is Increased Under a Follower Load. <i>Spine</i> , 2000, 25, 1548-1554.	1.0	161
81	A Follower Load Increases the Load-Carrying Capacity of the Lumbar Spine in Compression. <i>Spine</i> , 1999, 24, 1003-1009.	1.0	415
82	A Reliable and Accurate Method of Measuring Orthosis-Wearing Time. , 1999, , .		0
83	Flexion and traction effect on C5-C6 foraminal space. <i>Archives of Physical Medicine and Rehabilitation</i> , 1998, 79, 1105-1109.	0.5	33
84	The Natural History of the Cervical Foramen in Symptomatic and Asymptomatic Individuals Aged 20-60 Years as Measured by Magnetic Resonance Imaging. <i>Spine</i> , 1998, 23, 2180-2184.	1.0	71
85	Intervertebral Disc Pressure Changes During Low Back Treatment Procedures. , 1998, , .		0
86	Stability of the Lumbar Spine Subjected to a Follower Load: Part I - Experimental Results. , 1998, , .		0
87	Intervertebral Disc Pressure Changes During a Chiropractic Procedure. , 1997, , .		4
88	Computers in rehabilitative biomechanics. <i>ACM SIGCAPH Computers and the Physically Handicapped</i> , 1983, , 16-26.	0.1	0