Ajit M Chaudhari

List of Publications by Year in Descending Order

118 papers	3,534 citations	29 h-index	58 g-index
149 ext. papers	4,038 ext. citations	2.6 avg, IF	5.38 L-index

#	Paper	IF	Citations
118	A Quiet Unstable Sitting Test to quantify core stability in clinical settings: Application to adults with ventral hernia.. *Clinical Biomechanics*, **2022**, 93, 105594	2.2	0
117	Discover your potential: The influence of kinematics on a muscle's ability to contribute to the sit-to-stand transfer.. *PLoS ONE*, **2022**, 17, e0264080	3.7	
116	Is modular control related to functional outcomes in individuals with knee osteoarthritis and following total knee arthroplasty?. *PLoS ONE*, **2022**, 17, e0267340	3.7	
115	Preoperative exercise and outcomes after ventral hernia repair: Making the case for prehabilitation in ventral hernia patients. *Surgery*, **2021**, 170, 516-524	3.6	1
114	Measuring Vestibular Contributions to Age-Related Balance Impairment: A Review. *Frontiers in Neurology*, **2021**, 12, 635305	4.1	2
113	Effects of spinal coupling and marker set on tracking of spine models during running. *Journal of Biomechanics*, **2021**, 116, 110217	2.9	2
112	High Number of Door Openings Increases the Bacterial Load of the Operating Room. *Surgical Infections*, **2021**, 22, 684-689	2	0
111	Effects of age and knee osteoarthritis on the modular control of walking: A pilot study.. *PLoS ONE*, **2021**, 16, e0261862	3.7	1
110	3D Motion Capture May Detect Spatiotemporal Changes in Pre-Reaching Upper Extremity Movements with and without a Real-Time Constraint Condition in Infants with Perinatal Stroke and Cerebral Palsy: A Longitudinal Case Series. *Sensors*, **2020**, 20,	3.8	3
109	What are the effects of simulated muscle weakness on the sit-to-stand transfer?. *Computer Methods in Biomechanics and Biomedical Engineering*, **2020**, 23, 765-772	2.1	1
108	Differences in coordination and timing of pre-reaching upper extremity movements may be an indicator of cerebral palsy in infants with stroke: A preliminary investigation. *Clinical Biomechanics*, **2020**, 73, 181-188	2.2	3
107	Effects of Optimization Technique on Simulated Muscle Activations and Forces. *Journal of Applied Biomechanics*, **2020**, 1-20	1.2	2
106	A Review of Workload-Monitoring Considerations for Baseball Pitchers. *Journal of Athletic Training*, **2020**, 55, 911-917	4	4
105	Reducing Core Stability Influences Lower Extremity Biomechanics in Novice Runners. *Medicine and Science in Sports and Exercise*, **2020**, 52, 1347-1353	1.2	3
104	Costs Associated with Lower- and Upper-Limb Amputation Over the First 4 Years with a Prosthesis. *Journal of Prosthetics and Orthotics*, **2020**, 32, 81-92	0.7	0
103	A new perspective on transient characteristics of quiet stance postural control. *PLoS ONE*, **2020**, 15, e0237246	3.7	9
102	A new perspective on transient characteristics of quiet stance postural control **2020**, 15, e0237246		

101	A new perspective on transient characteristics of quiet stance postural control **2020**, 15, e0237246		
100	A new perspective on transient characteristics of quiet stance postural control **2020**, 15, e0237246		
99	A new perspective on transient characteristics of quiet stance postural control **2020**, 15, e0237246		
98	Biomechanical analysis of users of multi-articulating externally powered prostheses with and without their device. *Prosthetics and Orthotics International*, **2019**, 43, 618-628	1.5	1
97	The relationship between lateral epicondyle morphology and iliotibial band friction syndrome: A matched case-control study. *Knee*, **2019**, 26, 1198-1203	2.6	4
96	Decreasing Room Traffic in Orthopedic Surgery: A Quality Improvement Initiative. *American Journal of Medical Quality*, **2019**, 34, 561-568	1.1	2
95	Exploring the Roles of Central and Peripheral Nervous System Function in Gait Stability: Preliminary Insights from Cancer Survivors. *Gait and Posture*, **2019**, 71, 62-68	2.6	11
94	Visual-Spatial Memory Deficits Are Related to Increased Knee Valgus Angle During a Sport-Specific Sidestep Cut. *American Journal of Sports Medicine*, **2019**, 47, 1488-1495	6.8	25
93	Impaired Postural Control and Altered Sensory Organization During Quiet Stance Following Neurotoxic Chemotherapy: A Preliminary Study. *Integrative Cancer Therapies*, **2019**, 18, 1534735419828823	3	16
92	Perceived Instability Is Associated With Strength and Pain, Not Frontal Knee Laxity, in Patients With Advanced Knee Osteoarthritis. *Journal of Orthopaedic and Sports Physical Therapy*, **2019**, 49, 513-517	4.2	5
91	Effects of Spinal Coupling and Marker Set on Tracking of Spine Models During Running. *Medicine and Science in Sports and Exercise*, **2019**, 51, 694-694	1.2	
90	The effects of performing integrated compared to isolated core exercises. *PLoS ONE*, **2019**, 14, e0212216	3.7	9
89	Projected Health Care Associated Costs of Workplace-Related Traumatic Amputation After 10, 15, and 20 Years: Part I: Lower Limb. *Journal of Prosthetics and Orthotics*, **2019**, 31, 189-198	0.7	
88	Forces Generated by Vastus Lateralis and Vastus Medialis Decrease with Increasing Stair Descent Speed. *Annals of Biomedical Engineering*, **2018**, 46, 579-589	4.7	2
87	Normative Functional Performance Values in High School Athletes: The Functional Pre-Participation Evaluation Project. *Journal of Athletic Training*, **2018**, 53, 35-42	4	12
86	Visual-Motor Control of Drop Landing After Anterior Cruciate Ligament Reconstruction. *Journal of Athletic Training*, **2018**, 53, 486-496	4	25
85	THE EFFECT OF TACKLING TRAINING ON HEAD ACCELERATIONS IN YOUTH AMERICAN FOOTBALL. *International Journal of Sports Physical Therapy*, **2018**, 13, 229-237	1.4	11
84	INTER-RATER AGREEMENT AND VALIDITY OF A TACKLING PERFORMANCE ASSESSMENT SCALE IN YOUTH AMERICAN FOOTBALL. *International Journal of Sports Physical Therapy*, **2018**, 13, 238-246	1.4	2

83	Pain and Overuse in High School Baseball Pitchers During a Season. *Medicine and Science in Sports and Exercise*, **2018**, 50, 581	1.2	
82	Biomechanical consequences of running with deep core muscle weakness. *Journal of Biomechanics*, **2018**, 67, 98-105	2.9	17
81	Effects of Alterations in Gait Mechanics on the Development of Osteoarthritis in the ACL-Deficient Knee **2018**, 153-166		
80	Proximal Risk Factors for ACL Injury: Role of Core Stability **2018**, 189-205		1
79	Characterizing within-subject variability in quantified measures of balance control: A cohort study. *Gait and Posture*, **2018**, 64, 141-146	2.6	3
78	Assessing the effect of football play on knee articular cartilage using delayed gadolinium-enhanced MRI of cartilage (dGEMRIC). *Magnetic Resonance Imaging*, **2017**, 39, 149-156	3.3	3
77	Differential knee joint loading patterns during gait for individuals with tibiofemoral and patellofemoral articular cartilage defects in the knee. *Osteoarthritis and Cartilage*, **2017**, 25, 1046-1054	6.2	10
76	Quantitative biomechanical assessment of trunk control in Huntington's disease reveals more impairment in static than dynamic tasks. *Journal of the Neurological Sciences*, **2017**, 376, 29-34	3.2	13
75	Relationships Between Standing Frontal-Plane Knee Alignment and Dynamic Knee Joint Loading During Walking and Jogging in Youth Who Are Obese. *Physical Therapy*, **2017**, 97, 571-580	3.3	8
74	Do Neuromuscular Dentistry-Designed Mouthguards Enhance Dynamic Movement Ability in Competitive Athletes?. *Journal of Strength and Conditioning Research*, **2017**, 31, 1627-1635	3.2	1
73	Gait, balance, and patient-reported outcomes during taxane-based chemotherapy in early-stage breast cancer patients. *Breast Cancer Research and Treatment*, **2017**, 164, 69-77	4.4	58
72	When to biomechanically examine a lower-limb amputee: A systematic review of accommodation times. *Prosthetics and Orthotics International*, **2017**, 41, 431-445	1.5	23
71	Interpreting Musculoskeletal Models and Dynamic Simulations: Causes and Effects of Differences Between Models. *Annals of Biomedical Engineering*, **2017**, 45, 2635-2647	4.7	11
70	Test-Retest Reliability of Functional Tasks in Healthy High School Athletes. *Medicine and Science in Sports and Exercise*, **2017**, 49, 118	1.2	
69	Neuroplasticity Associated With Anterior Cruciate Ligament Reconstruction. *Journal of Orthopaedic and Sports Physical Therapy*, **2017**, 47, 180-189	4.2	112
68	Relationships between varus-valgus laxity of the severely osteoarthritic knee and gait, instability, clinical performance, and function. *Journal of Orthopaedic Research*, **2017**, 35, 1644-1652	3.8	21
67	Tibiofemoral Osteoarthritis and Varus-Valgus Laxity. *Journal of Knee Surgery*, **2017**, 30, 440-451	2.4	13
66	Visual Memory Influences the Effect of Soccer Ball Handling on Knee Valgus Angle while Cutting. *Medicine and Science in Sports and Exercise*, **2017**, 49, 381	1.2	

65	Effect of chemotherapy-induced peripheral neuropathy on postural control in cancer survivors.. *Journal of Clinical Oncology*, **2017**, 35, 128-128	2.2	5
64	The Effect of Tackling Form on Head Accelerations Experienced by Youth Football Players. *Medicine and Science in Sports and Exercise*, **2017**, 49, 834	1.2	
63	Muscle Forces and Their Contributions to Vertical and Horizontal Acceleration of the Center of Mass During Sit-to-Stand Transfer in Young, Healthy Adults. *Journal of Applied Biomechanics*, **2016**, 32, 487-503	1.2	28
62	E8 Trunk sway relates to gait and mobility measures and provides insight into increased fall risk in younger individuals with huntington disease. *Journal of Neurology, Neurosurgery and Psychiatry*, **2016**, 87, A48.1-A48	5.5	1
61	Natural history of postural instability in breast cancer patients treated with taxane-based chemotherapy: A pilot study. *Gait and Posture*, **2016**, 48, 237-242	2.6	22
60	Creation of a simple distal femur morphology classification system. *Journal of Orthopaedic Research* , **2016**, 34, 924-31	3.8	4
59	Physical Exam Risk Factors for Lower Extremity Injury in High School Athletes: A Systematic Review. *Clinical Journal of Sport Medicine*, **2016**, 26, 435-444	3.2	15
58	An investigation of jogging biomechanics using the full-body lumbar spine model: Model development and validation. *Journal of Biomechanics*, **2016**, 49, 1238-1243	2.9	51
57	Longitudinal changes in patient-reported symptoms and physical function during taxane-based chemotherapy in breast cancer patients.. *Journal of Clinical Oncology*, **2016**, 34, 10098-10098	2.2	
56	Muscle co-contraction during gait in individuals with articular cartilage defects in the knee. *Gait and Posture*, **2016**, 48, 68-73	2.6	9
55	Exercise-driven metabolic pathways in healthy cartilage. *Osteoarthritis and Cartilage*, **2016**, 24, 1210-22	6.2	17
54	Tibiofemoral joint subchondral surface conformity: Individual variability with race and sex-specific trends. *Knee*, **2016**, 23, 770-6	2.6	2
53	Association between ball-handling versus defending actions and acute noncontact lower extremity injuries in high school basketball and soccer. *American Journal of Sports Medicine*, **2015**, 43, 802-7	6.8	11
52	Changes in lower extremity peak angles, moments and muscle activations during stair climbing at different speeds. *Journal of Electromyography and Kinesiology*, **2015**, 25, 982-9	2.5	10
51	Knee joint loading during lineman-specific movements in American football players. *Journal of Applied Biomechanics*, **2015**, 31, 142-8	1.2	4
50	Stride Leg Ground Reaction Forces Predict Throwing Velocity in Adult Recreational Baseball Pitchers. *Journal of Strength and Conditioning Research*, **2015**, 29, 2708-15	3.2	12
49	Evidence for joint moment asymmetry in healthy populations during gait. *Gait and Posture*, **2014**, 40, 526-31	2.6	27
48	Lumbopelvic control and days missed because of injury in professional baseball pitchers. *American Journal of Sports Medicine*, **2014**, 42, 2734-40	6.8	67

47	Hip adductor activations during run-to-cut manoeuvres in compression shorts: implications for return to sport after groin injury. *Journal of Sports Sciences*, **2014**, 32, 1333-40	3.6	19
46	iLESS Visual Estimation is a Valid Measure of Knee Valgus During Drop Vertical Jump. *Medicine and Science in Sports and Exercise*, **2014**, 46, 407	1.2	2
45	Landing ground reaction forces in figure skaters and non-skaters. *Journal of Sports Sciences*, **2014**, 32, 1042-9	3.6	12
44	Lower extremity work is associated with club head velocity during the golf swing in experienced golfers. *International Journal of Sports Medicine*, **2014**, 35, 785-8	3.6	8
43	Quadriceps femoris strength and sagittal-plane knee biomechanics during stair ascent in individuals with articular cartilage defects in the knee. *Journal of Sport Rehabilitation*, **2014**, 23, 259-69	1.7	8
42	Anteromedial ridging of the femoral intercondylar notch: an anatomic study of 170 archival skeletal specimens. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2014**, 22, 80-7	5.5	13
41	The effects of core muscle activation on dynamic trunk position and knee abduction moments: implications for ACL injury. *Journal of Biomechanics*, **2013**, 46, 2236-41	2.9	38
40	Gluteus maximus and soleus compensate for simulated quadriceps atrophy and activation failure during walking. *Journal of Biomechanics*, **2013**, 46, 2165-72	2.9	35
39	Time-to-contact demonstrates modulation of postural control during a dynamic lower extremity task. *Gait and Posture*, **2013**, 38, 658-62	2.6	4
38	Figure skater level moderates balance training. *International Journal of Sports Medicine*, **2013**, 34, 345-9	3.6	4
37	Lumbopelvic neuromuscular training and injury rehabilitation: a systematic review. *Clinical Journal of Sport Medicine*, **2013**, 23, 160-71	3.2	8
36	Knee joint kinetics in relation to commonly prescribed squat loads and depths. *Journal of Strength and Conditioning Research*, **2013**, 27, 1765-74	3.2	21
35	Knee moments during run-to-cut maneuvers are associated with lateral trunk positioning. *Journal of Biomechanics*, **2012**, 45, 1881-5	2.9	89
34	Design and cadaveric validation of a novel device to quantify knee stability during total knee arthroplasty. *Journal of Biomechanical Engineering*, **2012**, 134, 115001	2.1	9
33	ACL Research Retreat VI: an update on ACL injury risk and prevention. *Journal of Athletic Training*, **2012**, 47, 591-603	4	58
32	Randomized controlled trial of the effects of a trunk stabilization program on trunk control and knee loading. *Medicine and Science in Sports and Exercise*, **2012**, 44, 1924-34	1.2	36
31	Effects of Alterations in Gait Mechanics on the Development of Osteoarthritis in the ACL-Deficient Knee **2012**, 137-147		
30	Proximal Risk Factors for ACL Injury: Role of Core Stability **2012**, 169-183		

29	Lumbopelvic control and pitching performance of professional baseball pitchers. *Journal of Strength and Conditioning Research*, **2011**, 25, 2127-32	3.2	39
28	Quantitative assessment of mobile protein levels in human knee synovial fluid: feasibility of chemical exchange saturation transfer (proteinCEST) MRI of osteoarthritis. *Magnetic Resonance Imaging*, **2011**, 29, 335-41	3.3	5
27	Hip extension, knee flexion paradox: a new mechanism for non-contact ACL injury. *Journal of Biomechanics*, **2011**, 44, 577-85	2.9	63
26	Comparative assessment of bone pose estimation using Point Cluster Technique and OpenSim. *Journal of Biomechanical Engineering*, **2011**, 133, 114503	2.1	13
25	Valgus plus internal rotation moments increase anterior cruciate ligament strain more than either alone. *Medicine and Science in Sports and Exercise*, **2011**, 43, 1484-91	1.2	144
24	Shoe-surface friction influences movement strategies during a sidestep cutting task: implications for anterior cruciate ligament injury risk. *American Journal of Sports Medicine*, **2010**, 38, 478-85	6.8	49
23	Association of noncontact anterior cruciate ligament injury with presence and thickness of a bony ridge on the anteromedial aspect of the femoral intercondylar notch. *American Journal of Sports Medicine*, **2010**, 38, 1667-73	6.8	46
22	ACL Research Retreat V: an update on ACL injury risk and prevention, March 25-27, 2010, Greensboro, NC. *Journal of Athletic Training*, **2010**, 45, 499-508	4	61
21	Side-to-side differences in anterior cruciate ligament volume in healthy control subjects. *Journal of Biomechanics*, **2010**, 43, 576-8	2.9	19
20	Differences in tibial rotation during walking in ACL reconstructed and healthy contralateral knees. *Journal of Biomechanics*, **2010**, 43, 1817-22	2.9	150
19	A case-control study of anterior cruciate ligament volume, tibial plateau slopes and intercondylar notch dimensions in ACL-injured knees. *Journal of Biomechanics*, **2010**, 43, 1702-7	2.9	183
18	Anterior cruciate ligament-injured subjects have smaller anterior cruciate ligaments than matched controls: a magnetic resonance imaging study. *American Journal of Sports Medicine*, **2009**, 37, 1282-7	6.8	88
17	Influence of patellar ligament insertion angle on quadriceps usage during walking in anterior cruciate ligament reconstructed subjects. *Journal of Orthopaedic Research*, **2009**, 27, 730-5	3.8	9
16	The effect of isolated valgus moments on ACL strain during single-leg landing: a simulation study. *Journal of Biomechanics*, **2009**, 42, 280-5	2.9	128
15	Graft orientation influences the knee flexion moment during walking in patients with anterior cruciate ligament reconstruction. *American Journal of Sports Medicine*, **2009**, 37, 2173-8	6.8	35
14	Knee kinematics, cartilage morphology, and osteoarthritis after ACL injury. *Medicine and Science in Sports and Exercise*, **2008**, 40, 215-22	1.2	244
13	The patella ligament insertion angle influences quadriceps usage during walking of anterior cruciate ligament deficient patients. *Journal of Orthopaedic Research*, **2007**, 25, 1643-50	3.8	14
12	The influence of deceleration forces on ACL strain during single-leg landing: a simulation study. *Journal of Biomechanics*, **2007**, 40, 1145-52	2.9	132

11	Knee and hip loading patterns at different phases in the menstrual cycle: implications for the gender difference in anterior cruciate ligament injury rates. *American Journal of Sports Medicine*, **2007**, 35, 793-800	6.8	55
10	Measuring human movement for biomechanical applications using markerless motion capture **2006** , 6056, 246		4
9	Comment: effect of fatigue on knee kinetics and kinematics in stop-jump tasks. *American Journal of Sports Medicine*, **2006**, 34, 312; author reply 313-5	6.8	14
8	Tibiofemoral joint contact force in deep knee flexion and its consideration in knee osteoarthritis and joint replacement. *Journal of Applied Biomechanics*, **2006**, 22, 305-13	1.2	54
7	The mechanical consequences of dynamic frontal plane limb alignment for non-contact ACL injury. *Journal of Biomechanics*, **2006**, 39, 330-8	2.9	107
6	A markerless motion capture system to study musculoskeletal biomechanics: visual hull and simulated annealing approach. *Annals of Biomedical Engineering*, **2006**, 34, 1019-29	4.7	191
5	Conditions that influence the accuracy of anthropometric parameter estimation for human body segments using shape-from-silhouette **2005**,		4
4	Sport-dependent variations in arm position during single-limb landing influence knee loading: implications for anterior cruciate ligament injury. *American Journal of Sports Medicine*, **2005**, 33, 824-30	6.8	88
3	Most favorable camera configuration for a shape-from-silhouette markerless motion capture system for biomechanical analysis **2005**, 5665, 278		11
2	Hip abductor weakness in distance runners with iliotibial band syndrome. *Clinical Journal of Sport Medicine*, **2000**, 10, 169-75	3.2	407
1	Transient liquid crystal thermometry of microfabricated PCR vessel arrays. *Journal of Microelectromechanical Systems*, **1998**, 7, 345-355	2.5	72