

Patella

[View the current Patella InDepth page on BioPortfolio.com](#) ([PDF](#))

(<http://www.bioportfolio.com/indepth/Patella.html>) - Regularly Updated.

The patella or kneecap is a thick, triangular bone which articulates with the femur and covers and protects the front of the knee joint. It is the largest sesamoid bone in the human body. It is attached to the tendon of the quadriceps femoris muscle, which contracts to straighten the leg. The vastus intermedialis muscle is attached to the base of patella. The vastus lateralis and vastus medialis are attached to lateral and medial borders of patella respectively. The patella is stabilised by the insertion of vastus medialis and the prominence of the anterior femoral condyles, which prevent lateral dislocation during flexion. The retinacular fibres of the patella also stabilise it during exercise. The primary functional role of the patella is knee extension. The patella increases the leverage that the tendon can exert on the femur by increasing the angle at which it acts. The patella ossifies between the ages 2-6 years. In some people it may be absent congenitally or hypoplastic. In 2% of the population there is a bipartite patella, which is usually asymptomatic. Regarding non-human animals, the patella is fully developed only in placental mammals; marsupials have only rudimentary, non-ossified patellae. ([From the Wikipedia article Patella](#).)

Recent Publications on Patella:



- [Nail patella syndrome.](#)
In mammalian brain, neurons and astrocytes are reported to express various... 13th November, 2009
Department of Radiodiagnosis, All India Institute of Medical Sciences,- Indian J Pediatr. 2009 Oct;76(10):1077. ([DOI Direct Link](#))
- [Contemporary Management of Symptomatic Bipartite Patella.](#)
In mammalian brain, neurons and astrocytes are reported to express various... 13th November, 2009
- Orthopedics. 2009 Nov 1;32(11):850-851. doi: 10.3928/01477447-20091101-04. ([DOI Direct Link](#))
- [Contemporary Management of Symptomatic Bipartite Patella.](#)
In mammalian brain, neurons and astrocytes are reported to express various... 13th November, 2009
- Orthopedics. 2009 Nov 1;32(11):843-849. doi: 10.3928/01477447-20090922-20. ([DOI Direct Link](#))
- [Localized accumulation of lead within and among bones from lead-dosed goats.](#)
The principal aim of this study was to gain a better understanding of... 10th November, 2009
Laboratory of Inorganic and Nuclear Chemistry, Wadsworth Center, New York- Environ Res. 2009 Nov 6. ([DOI Direct Link](#))
- [MPFL reconstruction for PF instability. The soft \(tissue\) approach.](#)
Historically, anatomic factors have been identified that increase one's... 10th November, 2009
Department of Orthopaedic Surgery, University of Minnesota, 2450 Riverside- Orthop Traumatol Surg Res. 2009 Nov 4. ([DOI Direct Link](#))
- [Three-dimensional in vivo patellofemoral kinematics and contact area of anterior cruciate ligament-deficient and -reconstructed subjects using magnetic resonance imaging.](#)
PURPOSE: The purpose of this study was to test whether (1) the... 10th November, 2009

- Department of Mechanical Engineering, Sogang University, Seoul, Republic- Arthroscopy. 2009 Nov;25(11):1214-23. ([DOI Direct Link](#))
- [Differences in patellofemoral contact mechanics associated with patellofemoral pain syndrome.](#)
*Patellofemoral pain syndrome (PFPS) is a disorder of the patellofemoral...*6th November, 2009
Department of Mechanical and Manufacturing Engineering, Schulich School of- J Biomech. 2009 Nov 2. ([DOI Direct Link](#))
 - [Patellar resurfacing compared with nonresurfacing in total knee arthroplasty. A concise follow-up of a randomized trial.](#)
*Patellar resurfacing in total knee arthroplasty remains controversial...*4th November, 2009
Division of Orthopaedic Surgery, Vancouver Island Health-South Island,- J Bone Joint Surg Am. 2009 Nov;91(11):2562-7. ([DOI Direct Link](#))
 - [Knee joint arthroplasty after tibial osteotomy.](#)
*A total of 29 consecutive knee joint arthroplasties in 24 patients who...*3rd November, 2009
VII Department of Orthopaedic Surgery, Rizzoli Orthopaedic Institute,- Int Orthop. 2009 Oct 31. ([DOI Direct Link](#))
 - [Patellar tendon rupture in a basketball player.](#)
*The patient was a 21-year-old male who was referred to physical therapy...*3rd November, 2009
- J Orthop Sports Phys Ther. 2009 Nov;39(11):825. ([DOI Direct Link](#))
 - [In vivo patellar tracking induced by individual quadriceps components in individuals with patellofemoral pain.](#)
*Patellofemoral pain is a common knee disorder with a multi-factorial...*3rd November, 2009
Rehabilitation Institute of Chicago, Sensory Motor Performance Program,- J Biomech. 2009 Oct 28. ([DOI Direct Link](#))
 - [Microfracture treatment of single or multiple articular cartilage defects of the knee: a 5-year median follow-up of 110 patients.](#)
*We compared the results of microfracture in single versus multiple...*30th October, 2009
Deaconess University Hospital, Haraldsplass, Bergen, Norway,- Knee Surg Sports Traumatol Arthrosc. 2009 Oct 29. ([DOI Direct Link](#))
 - [Mid-term results and factors affecting outcome of a metal-backed unicompartmental knee design: a case series.](#)
*ABSTRACT: BACKGROUND: Controversies exist regarding the indications for...*28th October, 2009
Rubin Institute for Advanced Orthopaedics, Sinai Hospital of Baltimore,- J Orthop Surg Res. 2009 Oct 26;4:39. ([DOI Direct Link](#))
 - [Optic Nerve Head \(ONH\) Topographic Analysis by Stratus OCT in Normal Subjects: Correlation to Disc Size, Age, and Ethnicity.](#)
*PURPOSE: To study optic nerve head (ONH) topography parameters measured by...*27th October, 2009
*Department of Ophthalmology, Indiana University School of Medicine,- J Glaucoma. 2009 Oct 22. ([DOI Direct Link](#))
 - [Simultaneous bilateral anterior cruciate ligament reconstruction: a safe option.](#)
*When patients present with bilateral anterior cruciate ligament (ACL)...*23rd October, 2009
Department of Trauma and Orthopaedic Surgery, University Hospital Coventry- Knee Surg Sports Traumatol Arthrosc. 2009 Oct 22. ([DOI Direct Link](#))

BioNews Results for Patella

- [Diagnostic capability of Macular parameters of Stratus OCT 3 in detection of early glaucoma](#)
British Journal of Ophthalmology: Oct 14 2009 11:42PM Matching: patella
- [Co-existent medial collateral ligament injury following transient patellar dislocation - observations at MRI](#)
British Journal of Sports Medicine: Oct 15 2009 12:48AM Matching: patella

- [A trick dog owners dont want their pet to have](#)
Culpepper Star Exponent: Oct 9 2009 1:14PM Matching: patella
- [Osteosarcoma of the Patella: Biologic Reconstruction With Allograft](#)
Orthopedics Today: Oct 5 2009 12:41PM Matching: patella

Patella Clinical Trials:



- [Functional Surface Electromyogram of Knee Extensors in Healthy Humans and Patients With Patella-Dislocation.](#)

Patella Patents:



- 7563769- [FGF variants and methods for use thereof](#)
- 7582118- [Femoral trochlea prostheses](#)
- 7583487- [System and method for managing fault in a power system](#)
- 7585323- [In vitro mechanical loading of musculoskeletal tissues](#)
- 7585328- [Minimally invasive knee arthroplasty](#)
- 7587945- [Device for measuring tibio-femoral force amplitudes and force locations in total knee arthroplasty](#)
- 7588572- [Connector for domed cutting tool](#)
- 7588758- [COX-2 function and wound healing](#)
- 7591820- [Retrograde osteochondral autograft transfer system](#)
- 7591854- [Apparatus, system and method for intraoperative performance analysis during joint arthroplasty](#)
- 7592010- [Albumin fusion proteins](#)
- 7578850- [Unicondylar knee implant](#)
- 7578825- [Placement of fasteners into bone](#)
- 7578821- [Dynamic knee balancer with pressure sensing](#)
- 7563784- [Protease inhibitors](#)
- 7565559- [Method and system for communicating filter compensation coefficients for a digital power control system](#)
- 7566335- [Method and apparatus for patella resection](#)
- 7569233- [Hybrid biologic-synthetic bioabsorbable scaffolds](#)
- 7569384- [Albumin fusion proteins](#)
- 7572261- [Modular capture with magnetic attachment](#)
- 7572262- [Femoral guide for revision surgery](#)
- 7572291- [Osteochondral repair assembly including retracting spacer, kit and method](#)

- 7572295- [Cushion bearing implants for load bearing applications](#)
- 7575602- [System and method for prosthetic fitting and balancing in joints](#)
- 7594879- [Rotary rehabilitation apparatus and method](#)
- 7594897- [Knee support device](#)
- 7611653- [Manufacturing and material processing for prosthetic devices](#)
- 7614399- [Body conforming textile holder and filter article](#)
- 7615019- [Potentiating support with side struts spanning hinge joint](#)
- 7615020- [Support with removable pressure/alignment ring](#)
- 7615021- [Clothing having expandable framework](#)
- 7615022- [Potentiating support with alignment opening for joint protuberance](#)
- 7615023- [Donning support with framework fastened to garment](#)
- 7615027- [Support with framework fastened to garment](#)
- 7615054- [Bicompartmental knee implant and method](#)
- 7615070- [Electro-stimulation and medical delivery device](#)
- 7611540- [Extra-articular implantable mechanical energy absorbing systems and implantation method](#)
- 7610100- [Methods and systems for treating osteoarthritis](#)
- 7608110- [Systems for bone replacement](#)
- 7594929- [Anchoring screw for a relay strip or suture](#)
- 7594933- [Method and apparatus for positioning a bone prosthesis using a localization system](#)
- 7594934- [Galactosidase-treated prosthetic devices](#)
- 7594935- [Prosthetic device contouring and alignment method and apparatus](#)
- 7595062- [Joint resurfacing orthopaedic implant and associated method](#)
- 7595686- [Digital controller for high-frequency switching power supplies](#)
- 7601812- [Immunomodulating agents from parasitic worms and method for isolation thereof](#)
- 7604639- [Patellar cutting guide](#)
- 7605122- [Human chorionic gonadotropin \(hCG\) formulations for facilitating weight loss and body contouring](#)
- 7608051- [Osteoarthritis knee orthosis](#)
- 7615081- [Femoral components for knee arthroplasty](#)

Resources from the [NCBI](#) used in this document, [NCBI's standard disclaimer applies](#).

Nothing in this document should be used in place of personal medical advice from your own qualified medical practitioner. See BioPortfolio.com [User Agreement](#)

Send comments and feedback to:

Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

All rights reserved. All other trademarks recognized.

BioPortfolio Limited is registered in England & Wales at Stafford House, 10 Prince of Wales Road, Dorchester, Dorset, DT1 1PW, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2009 - BioPortfolio Limited.

