

# Mr Vipul Mandalia

## Research

### Ongoing Research

Outcome of V shaped intra-osseous patella tunnel in MPFL reconstruction. Is it safe and effective?

Outcome of meniscal transplantation in patients with significant cartilage pathology – Early outcome

Comparison of Straight vs. flexible reamer in femoral tunnel placement during ACL reconstruction – A prospective study.

Comparison of fixed vs. adjustable suspensory loop femoral fixation during ACL Reconstruction – A prospective randomised trial.

Mid term results of MACI technique for isolated articular cartilage defects.

### Research Grants

Biomechanical analysis of various suture configuration of vertical meniscus repair –  
**Arthrex Grant 2019**

Outcome of alternative techniques (fixed vs Flexible reamer) of ACL Reconstruction. Exeter Research and Development Department. May 2015  
**A Small grant by RD&E hospital**

Microscale mechanics and chemistry of articular cartilage: relationships to in vivo loading and susceptibility to degeneration. 2014.  
**Arthritis Research UK Project Grant**

Structural and biomechanical effect of radiofrequency energy on human cartilage 2009-1010  
**A small grant by RD&E Hospital**

MRI scans for a prospective research project on "Knee Pathology in Asymptomatic Athletes". 2007-2008  
**Global Diagnostic Grant.**

A prospective follow up of patients with bone bruise of knee on MRI. 2002 –2003  
**Dept of Radiology, Great Western Hospital, Swindon**

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## Chief / Principal Investigator

**ACTIVE trial** - A multi-centre randomised trial of autologous chondrocyte transplantation versus existing treatments for chondral defects in the knee.

**TETEC Trial** – A multicentre randomised international trial comparing 3rd generation of Cartilage transplantation to microfracture.

**Cellular and Biomechanical effect of Radiofrequency chondroplasty on human articular cartilage.** A combined basic science project between Princess Elizabeth Orthopaedic Centre and Biophysics department at the University of Exeter.

**RAF ACL study - Radiological Assessment and Functional Outcome in ACL Reconstruction** – Comparison of Straight Vs. Flexible reamer and tibial stump preservation in ACL Reconstruction. – A prospective Randomised Study.

**Biomechanical properties of fixed and adjustable loop suspensory fixation devices** – A lab-based study comparing initial displacement, cycling elongation and load to failure of various suspensory fixation devices. .

**Knee MRI scan of normal healthy volunteers with asymptomatic knee** – An investigation to understand true normal Patellofemoral relation and other knee parameters.

**Comparison of various meniscus repair configuration** - Biomechanical comparison of different meniscus repair configuration for peripheral vertical meniscus tear

## Co-Investigator

**A Prospective, Randomised Study Investigating the use of a Fixed Loop versus and Adjustable Suspensory Loop in ACL Reconstruction** – A comparison of Clinical and Functional Outcome.

**A prospective, randomised, controlled study of the outcome and cost effectiveness of Triathlon CR knee replacement system:** Traditional instruments versus alternative alignment technique.

**A feasibility study for a prospective, randomised, controlled study of the outcomes and cost effectiveness of personalised HTO:** custom TOKA HTO versus generic TOMOFIX HTO

# Mr Vipul Mandalia

## MS (Orth) Thesis

Mandalia V

"Cannulated cancellous screw fixation in fracture neck of femur" – A prospective study of 44 cases.

## Innovations

TOKA – Patented 3D printed, patient specific Limb alignment correction device and implant. First ever design of this type to be developed in the World. The first in human Trial soon to start in February 2020

Nonlinear Microscope + Arthroscope - Incorporating the ability to obtain microscopic details of cartilage while performing routine arthroscopy. In the developmental stage.

## Audit

Return to pre-injury level of activity following ACL Reconstruction  
Exeter Knee Reconstruction Unit, Royal Devon and Exeter Hospital.

Double Bundle ACL Reconstruction.  
Exeter Knee Reconstruction Unit, Royal Devon and Exeter Hospital.

Day Case ACL Reconstruction.  
Exeter Knee Reconstruction Unit, Royal Devon and Exeter Hospital.

Long bone open injury: A Retrospective Audit.  
Princess Margaret Hospital, Swindon.

Caudal Epidural injection: A Prospective Audit.  
Princess Margaret Hospital, Swindon.

Tip Apex Distance (TAD) in DHS fixation in intertrochanteric fractures: A prospective Audit.  
North Hampshire Hospital, Basingstoke

Timing of post op Hb check in fracture neck of femur: A Prospective Audit.  
Southampton General Hospital, Southampton