



Minimally invasive partial knee replacement



Minimally invasive total knee replacement



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Kneecap realignment surgery



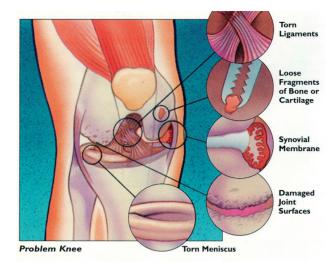
Kneecap joint replacement



Keyhole surgery – here precartilage transplantation



Anterior Cruciate Ligament reconstruction



MR SANJIV JARI

BSc(Hons), MBChB, FRCS(Eng), FRCS(Tr & Orth)

Consultant Knee, Lower Limb & Orthopaedic Sports Medicine Surgeon

Contact details and for appointments:

Tel: 0161 787 8705 **Fax:** 0161 787 8706

Email: info@thekneedoc.co.uk

Web: www.thekneedoc.co.uk



www.thekneedoc.co.uk



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KNEE PAIN?
KNEE INJURY?
KNEE PROBLEM?
KNEE ARTHRITIS?

Need information?

What are the treatment options?

Do you have to have an operation?

- If so, when should it be done?
- Are you ready for it?
- Do you need it?
- · What is involved?
- · What is the rehabilitation afterwards?

For answers, go to:

www.thekneedoc.co.uk

It's all you need to know



Introduction

- · The knee is the biggest joint in the body.
- The knee takes up to 8 times body weight with activities such as running, jumping, twisting and even just going up and down stairs
- The knee is the second most commonly injured joint in the body.
- It is therefore not surprising that knee problems, be they pain, swelling, arthritis or an injury, are very common in the community.
- That is where thekneedoc comes in.

The Knee Joint

The knee is really a series of three joints linked together by bones, muscles and ligaments.

The most commonly affected knee joints are the tibiofemoral joint and the patellofemoral joint.

The above knee joints are lined by a synovial membrane, which produces synovial fluid, a very important part of knee joint function.



Knee Symptoms

Most people who are having problems with their knee(s), have one or more of the following symptoms:

- Pain
- Swelling
- Stiffness
- Locking
- Giving way
- Limitation of function
- A recent injury to the knee

Knee Injuries

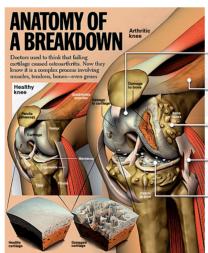
These can occur at any age. They are usually associated with twisting of the knee on a fixed or planted foot. They can result in damage to any of the structures in or around the knee.

Commonly, injuries will result in ligament tears (ACL, PCL), meniscus tears, damage to the lining cartilage of the knee, fractures (breaking) of the bones, tendon ruptures or a combination of these.

Arthritis

This is a condition that occurs when the cartilage that cushions the ends of the bones, softens and wears away. The bones then rub against each other causing pain, stiffness and swelling.

Arthritis occurs to a degree in everyone as you get older. It can however also occur in people with long standing inflammation of the lining membrane of the knee (rheumatoid arthritis). Arthritis can also occur some years after serious knee injuries such as fractures and ligament tears.



Cartilage: Made up of water, proteins and sugars, cartilage is the body's shock absorber. Injury, age and many other factors can cause cartilage to break down, but the end result is the same: without its cushion, bones start to grind against one another.

Muscles: These support the joints. The quadriceps for example, are responsible for holding up the knee and relieving some of the stress of walking and running. Weak quads can put too much strain on the joint, leading to tears in the tendons.

Bone: While bone normally responds to eroding cartilage by sending out spurs and other odd growths, sometimes it's the other way around: changes in bone structure that affect the shape of a joint can trigger a breakdown in the cartilage.

Tendons and Ligaments: By connecting and anchoring muscles and bones, these provide support for the joint. If they are torn in an injury or weakened from lack of use, the cartilage in the knee is forced to bear more weight, hastening its collapse.

Inflammation: As cartilage degrades, immune cells swoop in to engulf and destroy the dying tissue. In their zeal, they even attack healthy tissue. The debris, including toxic enzymes, can build up in the fluid of the joint, causing painful swelling.

Genes: More than half of arthritis sufferers are born with mutations in their genes that control cartilage formation and destruction. These aberrations can result in cartilage that is weaker t begin with or that degrades faster than it should.

About thekneedoc

thekneedoc is a developing on-line resource of the diagnosis and management of the many knee conditions. It includes:

- Knee anatomy & biomechanics
- Knee investigations
- · Knee conditions
- · Knee rehabilitation
- · Knee surgery
- · Sports injuries
- ACL reconstruction techniques to get you back to sport significantly faster
- · Keyhole (arthroscopic) surgery
- · Arthritis treatments
- · Minimally invasive Knee Replacement Surgery
- · Interactive surgery feature
- · Hot topics
- Cutting edge treatments including cartilage transplantation, minimally invasive knee replacements, hyaluronic acid injection and others



www.thekneedoc.co.uk



Minimally invasive total knee replacement surgery (knee on left of picture) by Mr Jari.