

Contact Information

NHS and Private Secretary:

**For all Spire, The London Clinic
and One Hatfield Hospital
Enquiries
(Mon – Thurs 9am – 2pm):**

Amanda Laws

Spire Harpenden Hospital
Ambrose Lane, Harpenden, AL5 4BP
Tel: 01582 714472
Fax: 01582 714463
Mobile: 07421 463260
Amanda.Laws@orthospecialist.info

For NHS and Cobham enquiries

Karen Lawrence

Luton & Dunstable NHS Foundation
Trust
Lewsey Road, Luton LU4 0DZ
Tel: 01582 497 068
Fax: 01582 718 350
Mobile: 07421 301146
karen.lawrence@ldh.nhs.uk
karen@orthospecialist.info
Website: www.ldh.nhs.uk



Private Consulting Rooms/ Hospitals:

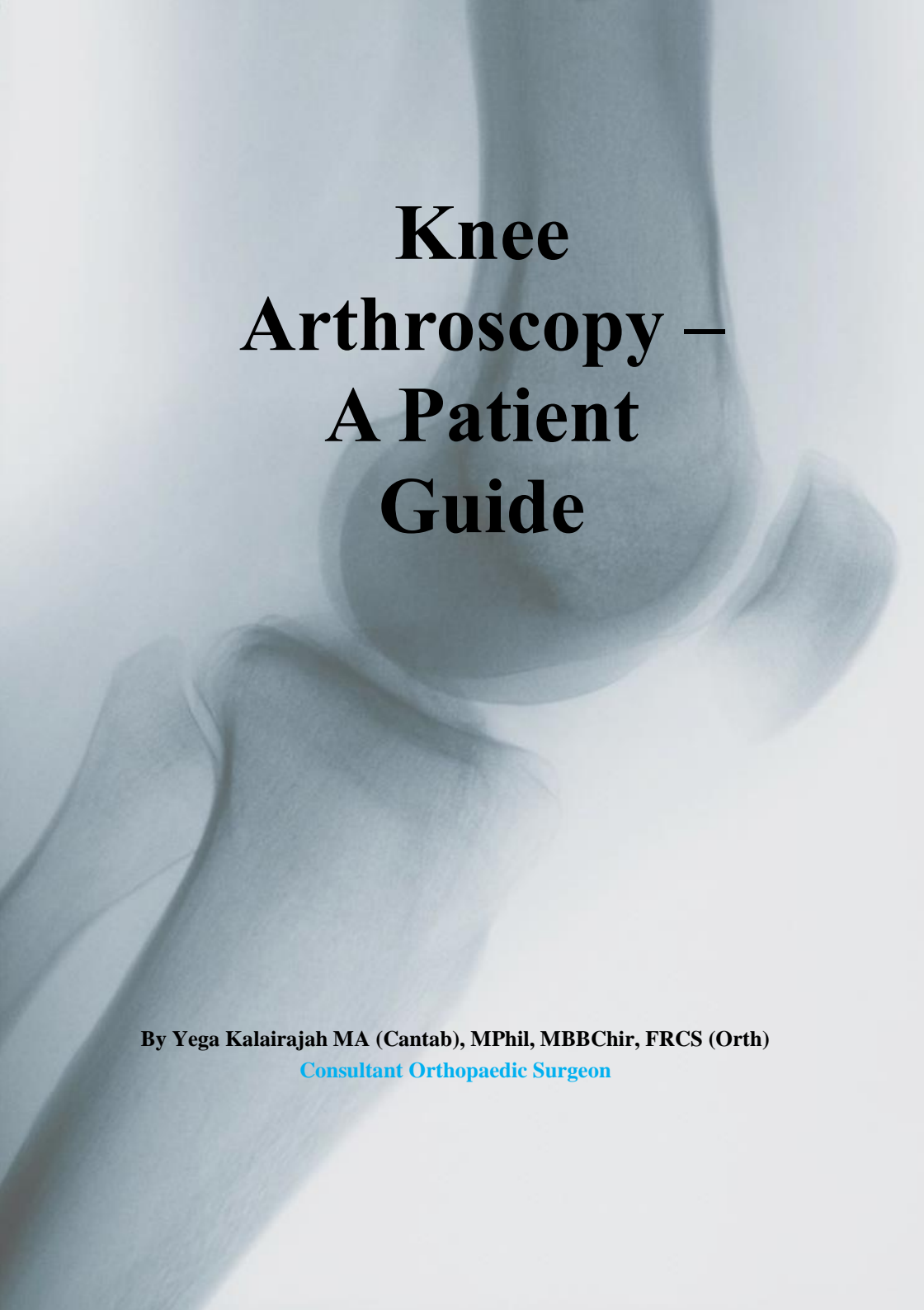
The Cobham Clinic

Luton and Dunstable Hospital NHS Trust Lewsey Road, Luton,
Bedfordshire, LU4 0DZ
Tel: 01582 497 433
Fax: 01582 497 450
www.cobhamclinic.co.uk

Spire Harpenden Hospital

Ambrose Lane, Harpenden,
Hertfordshire AL5 4BP
Main Switch: 01582 763 191
Appointments Tel: 0800 585 112
www.spirehealthcare.com/harpenden





Knee Arthroscopy – A Patient Guide

By Yega Kalairajah MA (Cantab), MPhil, MBBChir, FRCS (Orth)
Consultant Orthopaedic Surgeon

Knee Arthroscopy

Introduction.....	3
Knee Anatomy	3
What is a Knee Arthroscopy?	7
The Benefits of Arthroscopy.....	9
What are the risks of surgery?	9
How to help yourself and reduce these risks?	11
Procedure and preparation for surgery.....	13
What is Pre-assessment/ Pre-admission?	13
Preparation before coming to hospital	13
Coming into hospital.....	15
The Operation	16
After the operation	17
Going home.....	17
At home.....	18
Appendix 1	21
Exercises following knee surgery.	21
Appendix 2.....	25
Outcome Scores	25
Appendix 3.....	39
Consent Form.....	39
References.....	40
The Profile of your Surgeon	41

Knee Arthroscopy

Introduction

Your surgeon has given you this booklet because the option of a knee arthroscopy has been discussed with you. This booklet explains what to expect before and after the operation and any significant risks that may occur. This booklet aims to make your recovery as straightforward as possible.

The information is a guide only and you should always refer to your doctor, nurse or therapist for individual advice and treatment.

Knee Anatomy

The knee joint is the largest joint in the body. It is a hinge type joint consisting of the thigh bone (femur) and the shin bone (tibia). There is also a further joint at the front of the knee between the knee cap (patella) and the thigh bone. The surfaces of these bones are covered by articular **cartilage**. This enables the knee to glide smoothly.

The knee is also supported by other structures to provide stability and cushioning. These are

located both within and outside the joint –
Ligaments and Meniscus, and Muscles/ Tendons.

Figure 1 Normal knee radiographs



Ligaments:

There are 4 key ligaments that stabilise the knee joint. These are:

The **Medial collateral ligament** - this ligament runs from the femur to the tibia on the inner side of the knee.

The **Lateral collateral ligament** – this runs from the femur to the fibula on the outer side of the knee.

The **Anterior cruciate ligament** – this runs from the front tibia surface in the middle of the knee to the under surface of the femur at the back.

The **Posterior cruciate ligament** – this lies behind the anterior cruciate ligament. It comes from the under surface of the femur and inserts into the back of the tibia.

Figure 2 The anterior (ACL) and posterior (PCL) collateral ligaments. (Looking at the knee from the side)

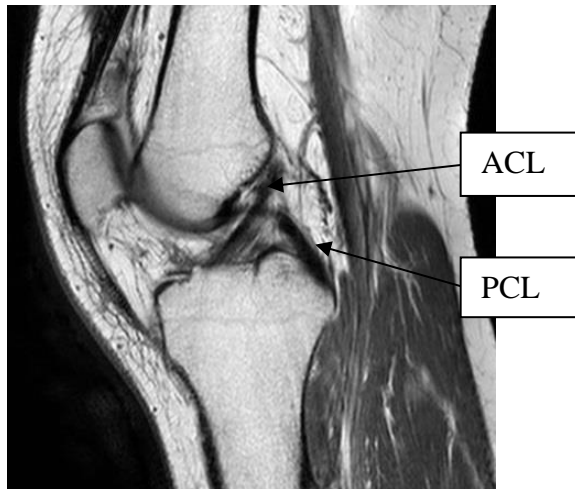
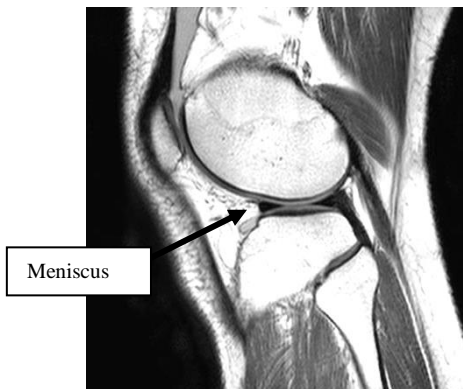
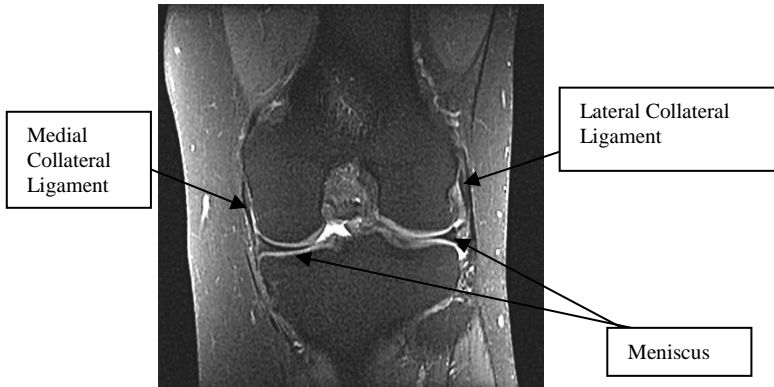


Figure 3 The medial and lateral collateral ligaments.(i) looking at the left knee from the front. (ii) Looking at the knee from the side.



Menisci:

There are 2 menisci – **the medial** (inner side) and **lateral** (outer side) discs of cartilage which are

C- shaped. These are “rubbery” structures that act as cushions in the knee and also contribute to stabilise the knee.

Surrounding the whole knee there is a thin membrane (**synovium**) that produces the lubricating fluid within the knee.

What is a Knee Arthroscopy?

Knee arthroscopy (or keyhole surgery of the knee) is a common procedure that orthopaedic surgeons use to examine and treat the inside of the knee joint.

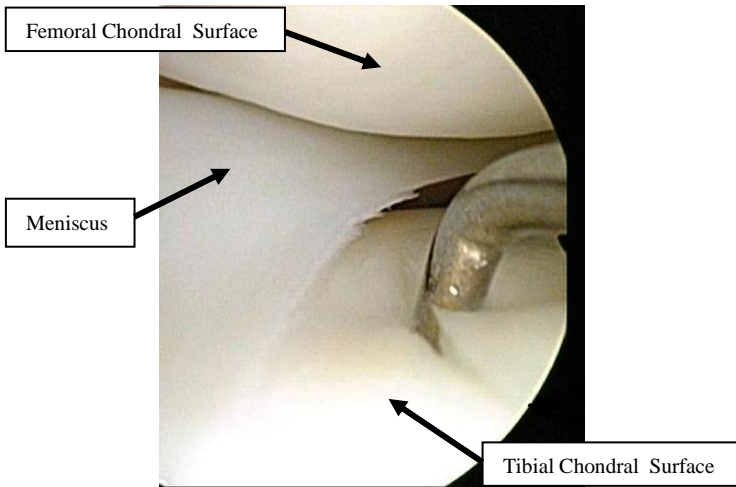
An arthroscope (a thin fibre optic telescope) is attached to a camera and passed inside the knee through a small incision on the outer side of the knee joint. This telescope is no wider than a pencil. A clear view of the knee can then be obtained on a television monitor and the structures inside the knee assessed. Depending on the problem identified, most problems can be addressed at the time of surgery but further operations may be required at a later date in some cases.

You will usually have a general anaesthetic and return home the same day.

Figure 4 Arthroscopy



Figure 5 A view inside the knee



The Benefits of Arthroscopy.

The main aims are

- To diagnose/identify the cause of your problem.
- To treat the identified problem, if possible, of locking, swelling and pain. e.g.
 1. Remove/repair tears to the meniscus.
 2. To remove loose bodies or cartilage flaps.
 3. Early arthritic changes with microfracture and/ or debridement.
 4. Patella (knee cap) tracking problems
 5. To remove inflamed synovium.
 6. Reconstruction of Ligaments, Cartilage replacement etc (these will not usually be done at the time of arthroscopy unless already discussed with you.)

What are the risks of surgery?

Anaesthesia and surgery involve a degree of risk to any individual, and hence your doctor would always suggest that you have tried other means of treatment such as exercises and physiotherapy, simple pain killers etc. where appropriate. If there is uncertainty over the diagnosis after your clinical examination, further investigations such

as an MRI may also be done to avoid the need for an arthroscopy.

Serious complications following knee arthroscopy are rare. However, you should be aware of the complications that can occur. Where a complication occurs, it is usually dealt with satisfactorily and the patient recovers with no damage to their knee.

The risks:

- **General Anaesthetic** – there is a small risk of a reaction and your anaesthetist will discuss this with you.
- **Infection** – there is a risk of surface wound infection or more seriously a deep infection of the knee which may need a further operation. *If after you get home you notice pain, swelling and redness or persistent discharge around the wound contact your operating surgeon's team.*
- **Blood clot** in the leg (a deep vein thrombosis DVT) which can sometimes break off and go to the lungs (a pulmonary embolus- PE) - treating this will involve medication which thins the blood (anticoagulants). *If you experience an increase in pain in your calf and/or increase in swelling in the calf area after your discharge, you should go to your Accident and Emergency Department*

immediately. (Swelling of the leg is common and normally resolves on its own over a few weeks.)

- **Haematoma** (collection of blood in the tissues) which on rare occasions need to be washed out.
- **Stiffness** can sometimes occur and this can be reduced by the exercises given to you after surgery.
- **Numbness** around the incision sites can occur but most usually resolve with time
- **Persistent pain** – a number of patients continue to have discomfort usually because of underlying knee changes is more than what can be addressed by arthroscopy.
- Other serious but rare complications include damage to the blood-vessels and nerves.

How to help yourself and reduce these risks?

Before Surgery:

- Stop smoking.*

* Smoking increases surgical and anaesthetic risks. It impairs wound healing and can cause chest infections. If

- Have a well balanced diet and maintain your general fitness before surgery.
- Ensure your other medical problems such as high blood pressure, diabetes etc are well controlled and have these all checked by your GP or GP practice nurse.
- Ensure you do not have an active infection or any dental problems.
- Stop any herbal medication and anti-inflammatory medication about 10 days before surgery.

After surgery:

- Start moving your toes and ankles as soon as you can.
- Do regular exercises and get moving as advised by the physiotherapist.
- Keep your knee **elevated** when resting and **ice** the knee regularly to keep the swelling down.

you do smoke we recommend you stop smoking at least 2 (preferably 6) weeks before surgery.

Procedure and preparation for surgery

What is Pre-assessment/ Pre-admission?

Several weeks before your operation you may be contacted by telephone and asked questions about your health. If deemed necessary you will be asked to attend a pre-assessment clinic to check you are medically fit to have your surgery. This can take several hours, so please be patient. The clinic is led by nurses who will ask about your health, past medical history, and circumstances at home.

If you have any specific medical problems, the nurse will tell the doctor and a further appointment may be made with the anaesthetist if necessary.

Preparation before coming to hospital

- You will need to **make arrangements for family or friends to help** to take you home after any day surgery and stay with you for the first 24 hours.

- **Stop blood thinning drugs** (e.g. Warfarin, Clopidogrel, Asprin etc.) as instructed in the pre-assessment clinic
- Please also read the above section on “How to help yourself and reduce risks” above.
- If you become ill with **a cold, flu, or develop an infection** just before your operation, you must contact your pre-assessment nurse/your operating surgeon’s team to delay the surgery.
- **A shower, bath or sponge wash** should be taken the evening before and on the morning of your surgery. Use a shampoo for your hair. Remove any make up or nail polish and any jewellery (except your wedding ring).
- **Check any fasting instructions** in your admission letter (It is usually no eating anything for a minimum of 6 hours before your surgery. You may usually drink water (not juices, milk etc.) up to 2 hours before surgery)

Coming into hospital

This usually occurs on the day of your operation – check your admission letter for details.

Please follow instructions on your admission letter on where to report to on arrival at the hospital.

- A **nurse** will take your medical and personal details and carry out routine test e.g. blood pressure etc. You will be given a hospital gown and an identity band.
- The physiotherapist will visit to give you exercises and advice on moving around (see exercises section at the end of the booklet). **The exercise program is a key part of your recovery.** To help you walk, crutches may be given to you.
- Your **surgeon** will see you to explain the operation and to complete a consent form to confirm that you understand the operation and risks involved, and that you agree to go ahead with it. This may happen earlier. Your leg will be marked with a pen at the site of your operation.
- The **Anaesthetist** will discuss with you the type of anaesthetic that you are having. Usually this will be a general anaesthetic.

- Any dentures can be removed at the last minute. Please advise staff of any crowns or capped teeth.
- You will be escorted to the operating theatre usually by a nurse.

The Operation

Anaesthetic Room:

- After the anaesthetist has given you your anaesthetic, you will be transferred into the operating theatre.

Operating Room:

- The surgeon will carry out the procedure and identify the problem and address the condition as appropriate. There will be 2 or 3 small cuts around the knee. There are usually no stitches and the wounds are covered with a waterproof dressing. The knee is then bandaged with a large support bandage.
- This operation will take approximately 0.5 to 1 hour.

- When you leave theatre you may on rare occasions have a drain from your knee. This usually comes out a few hours later

Recovery room:

- You will be closely observed in the recovery ward until you are fully recovered and transferred back to the ward.
- Start moving your toes and ankles to maintain your circulation.

After the operation

Going home

- You will be on the ward for about four hours and can have a drink and snack as soon as you feel like it.
- You must have a responsible person to take you home and stay with you for the first day.
- Before you leave hospital, a nurse will check your leg and apply a new dressing if necessary.
- Painkillers will be prescribed for you to take home and sometimes blood thinning medication may also be given.

- You will be sent an appointment to see your consultant between 2 to 6 weeks later to discuss the findings at the time of surgery.
- A letter will be sent to your doctor about your procedure and a copy given to you.
- Please ask for a sickness certificate from the ward before you leave if you need one.

At home

It takes about 24 hours for the anaesthetic to wear off and thus you must not operate any machinery, sign any important documents, drink alcohol or drive.

Pain – you can expect some pain but this will be different from the pain you had prior to your surgery. Please take your painkillers as advised initially in the first 3 days and then gradually cut down as the pain decreases.

Swelling – try to ice the knee after any exercise and elevate the leg (higher than your bottom) when resting. If you can tolerate anti-inflammatory medication/have been prescribed it (e.g. Ibuprofen, Diclofenac etc) it can also be used to reduce the swelling. If the swelling in the knee remains excessive you may need to cut back

on your knee exercises. Swelling and bruising usually takes several weeks to settle.

- *If after you get home you notice increasing pain, swelling and redness or persistent discharge around the wound contact your operating surgeon's team.*
- *If you experience an increase in pain and/or increase in swelling in your calf after your discharge, you should go to your Accident and Emergency Department immediately.*

Dressing/Bandages – take the bulky bandages down 48 hours after the operation. You should keep the waterproof dressings on for 10 days.

Showering and bathing -you can have a shower with the waterproof dressings. Avoid your knee soaking in water for the first weeks after the dressings are removed.

Activities – gradually increase your activities every day e.g. start walking a little further each day. Also increase your exercises as pain allows. Continue with your walking aids and if you feel safe you can stop using them. Avoid any sporting activity for 6 weeks or until you have seen your doctor. You should usually be able to return to driving about 3 to 7 days after surgery. Check that you can easily slam onto the emergency breaks if necessary without any discomfort.

Depending on your work you should be able to return to work anywhere between a few days after your arthroscopy (in sedentary occupations) to 2 weeks or longer if your occupation involves more active heavy work. *On rare occasions when special procedures such as a meniscal repair has been done, you will be advised to refrain from sports for 4 to 6 months after surgery and will have special braces fitted – this will be explained to you clearly before you leave hospital if this is the case.*

Stitches – we will advise you of any stitches that that need to be removed – if so this can be done in your GP surgery by the GP practice nurse or in the orthopaedic clinic (10-14 days after surgery).

Massaging the knee and wound – once the wound has healed (usually after 12 days) gentle massaging around the wound with moisturising cream may assist in restoring a more normal feeling around the knee. It is quite common to notice some degree of numbness around the wound and this is normal.

Follow up – you should receive an appointment approximately 2 to 6 weeks after surgery. If you do not receive an appointment, please contact the appointments desk at the hospital. If you are concerned about anything do not hesitate to ring your consultant's secretary or hospital to make an earlier appointment.

Appendix 1

Exercises following knee surgery.

See www.orthoexercise.com

It is very important to carry out knee exercises to reduce your pain, optimise the function and speed up the recovery of your knee. These exercises should be carried out little and often and only move as far as pain allows. Carry them out smoothly rather than jarring your knee.

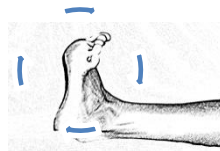
Immediately after surgery:

While you are in your bed:

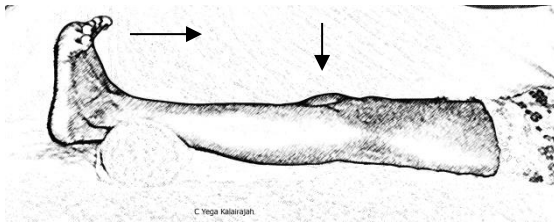
1. **Feet:** Pull both your left and right toes up towards you and then away. Circle your feet in both directions. Repeat 10 times every twenty minutes.



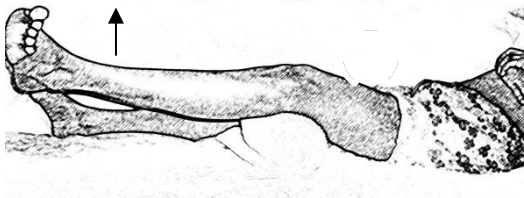
This exercise will improve the blood flow back from your legs and reduce the risk of clots occurring in the calf, reduce swelling and also the risk of pressure blisters under your heel.



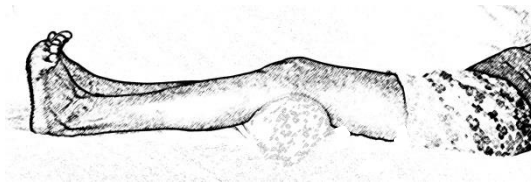
2. **Quadriceps:** Pull your toes up towards you, push your knee down and tighten the muscle on the front of the thigh. You can check this by putting your hand on the front of the thigh. Hold this for 5 seconds and relax.



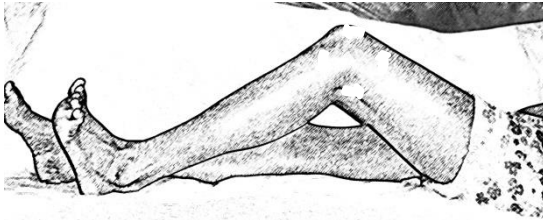
3. **Vastus Medialis:** Turn your hip outwards and lift your heel. Hold for 5 seconds.



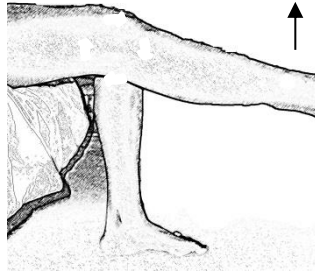
4. **Hamstrings:** Place a rolled up pillow or a wedge under your knee. Push your knee and heel down to tighten your muscles at the back of the thigh.



5. **Range of motion.** Once you feel your knee is strong enough you can start to bend your knee up as far as your pain allows hold this position for 5 seconds and then straighten. (i.e. slide your heels to your buttock)



6. Once you can sit out or sit over the edge of the bed, lower your foot of the operated leg gently to the floor. Try to get it to right angles or more. Once you have reached the maximum amount of comfortable bend try to straighten your leg slowly and hold for 5 seconds.



7. Once you are home/ comfortable with the above exercises: All the above exercises

should be continued and you should concentrate on building your muscles and range of knee movement further.

You should do all the above exercises at least 3 times a day and if possible more often (preferably 5-10 times every half an hour!) If they increase your pain then reduce the number or frequency of the exercises.

Appendix 2

Outcome Scores

Please fill in the following standardised questionnaires so as we can record and monitor the function of your knee over the long term. Please tear this section out after completion and hand it to your consultant.

OXFORD KNEE QUESTIONNAIRE ^{1 2}

Name: Date.....

Side: Left/Right

When answering the questions please only consider how you have been getting on during the past **four weeks**

- | | | |
|----|--|--------------|
| 1. | How would you describe the pain you have usually from your left/right knee? | Score |
| | <input type="checkbox"/> None | 0 |
| | <input type="checkbox"/> Very mild | 1 |
| | <input type="checkbox"/> Mild | 2 |
| | <input type="checkbox"/> Mild Moderate | 3 |
| | <input type="checkbox"/> Severe | 4 |
| 2. | Have you had any trouble with washing and drying yourself (all over) because of your left/right knee? | |
| | <input type="checkbox"/> No trouble at all | 0 |
| | <input type="checkbox"/> Very little trouble | 1 |
| | <input type="checkbox"/> Moderate trouble | 2 |
| | <input type="checkbox"/> Extreme difficulty | 3 |
| | <input type="checkbox"/> Impossible to do | 4 |

- 3 **Have you had any trouble getting in and out of a car or using public transport because of your left/right knee? (whichever you tend to use)**
- No trouble at all **0**
 - Very little trouble **1**
 - Moderate trouble **2**
 - Extreme difficulty **3**
 - Impossible to do **4**
- 4 **For how long have you been able to walk before the pain from your left/right knee became severe? (with or without a stick)**
- No pain, even after more than 30 minutes **0**
 - 16 to 30 minutes **1**
 - 5 to 15 minutes **2**
 - Around the house only **3**
 - Unable to walk at all **4**
5. **After a meal (sat at a table), how painful has it been for you to stand up from a chair because of your left/right knee?**
- Not at all painful **0**
 - Slightly painful **1**
 - Moderately painful **2**
 - Very painful **3**
 - Unbearable **4**

6. **Have you been limping when walking, because of your left/right knee?**
- Rarely/never **0**
 - Sometimes or just at first **1**
 - Often, not just at first **2**
 - Most of the time **3**
 - All of the time **4**
7. **Could you kneel down and get up again afterwards?**
- Yes, easily **0**
 - With little difficulty **1**
 - With moderate difficulty **2**
 - With extreme difficulty **3**
 - No, impossible **4**
8. **Have you been troubled by pain from your left/right knee in bed at night?**
- No nights **0**
 - Only 1 or 2 nights **1**
 - Some nights **2**
 - Most nights **3**
 - Every night **4**
9. **How much pain from your left/right knee interfered with your usual work (including housework)?**
- Not at all **0**
 - A little bit **1**

- Moderately 2
- Greatly 3
- Totally 4

10. **Have you felt that your knee might suddenly “give way” or let you down?**

- Rarely / never 0
- Sometimes or just at first 1
- Often, not just at first 2
- Most of the time 3
- All of the time 4

11. **Have you been able to do your household shopping on your own?**

- Yes, easily 0
- With little difficulty 1
- With moderate difficulty 2
- With extreme difficulty 3
- No, impossible 4

12. **Have you been able to climb a flight of stairs?**

- Yes, easily 0
- With little difficulty 1
- With moderate difficulty 2
- With extreme difficulty 3
- No, impossible 4

	TOTAL	
--	-------	--

WOMAC KNEE QUESTIONNAIRE ^{3 4}
 (Please fill this in and also hand it back to your doctor)

Name:

Date.....

Side: Left/Right

When answering the questions please only consider how you have been getting on during **the past ONE week**

SYMPTOMS		
S1	Do you have swelling in your knee? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Sometimes <input type="checkbox"/> Often <input type="checkbox"/> Always	Score 0 1 2 3 4
S2	Do you feel grinding, hear clicking or any other type of noise when your knee moves? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
S3	Does your knee catch or hang up when moving? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4

S4	Can you straighten your knee fully? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	Score 0 1 2 3 4
S5	Can you bend your knee fully? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
STIFFNESS (Stiffness is a sensation of restriction or slowness in the ease with which you move your knee joint.)		
S6	How severe is your knee joint stiffness after first wakening in the morning? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	Score 0 1 2 3 4
S7	How severe is your knee stiffness after sitting, lying or resting later in the day? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4

PAIN		
P1	How often do you experience knee pain? <input type="checkbox"/> Never <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily <input type="checkbox"/> Always	Score 0 1 2 3 4
P2	What amount of pain have you experienced when <i>twisting/pivoting on your knee?</i> <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
P3	What amount of pain have you experienced when <i>straightening knee fully?</i> <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
P4	What amount of pain have you experienced when <i>bending knee fully?</i> <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4

<p>P5</p>	<p>What amount of pain have you experienced when walking on flat surface?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>Score</p> <p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
<p>P6</p>	<p>What amount of pain have you experienced when going up or down stairs?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
<p>P7</p>	<p>What amount of pain have you experienced when at night while in bed?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
<p>P8</p>	<p>What amounts of pain have you experienced when sitting or lying?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>

P9	What amount of pain have you experienced when <i>standing upright</i>)? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	Score 0 1 2 3 4
FUNCTION, DAILY LIVING		
A1	What degree of difficulty have you experienced when <i>descending stairs</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
A2	What degree of difficulty have you experienced when <i>ascending stairs</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
A3	What degree of difficulty have you experienced when <i>rising from sitting</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4

A4	What degree of difficulty have you experienced when <i>standing</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	Score 0 1 2 3 4
A5	What degree of difficulty have you experienced when <i>bending to floor/picking up an object</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
A6	What degree of difficulty have you experienced when <i>walking on a flat surface</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
A7	What degree of difficulty have you experienced when <i>getting in/out of car</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4

A8	What degree of difficulty have you experienced when <i>going shopping</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	Score 0 1 2 3 4
A9	What degree of difficulty have you experienced when <i>putting on socks or stockings</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
A10	What degree of difficulty have you experienced when <i>rising from bed</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
A11	What degree of difficulty have you experienced when <i>taking off socks/stockings</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4

A12	<p>What degree of difficulty have you experienced when lying in bed (turning over, maintaining knee position)?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>Score</p> <p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
A13	<p>What degree of difficulty have you experienced when getting in and out of bath?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
A14	<p>What degree of difficulty have you experienced when sitting?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Extreme</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
A16	<p>What degree of difficulty have you experienced with heavy domestic duties (moving heavy boxes, scrubbing floors etc)?</p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Mild</p>	<p>0</p> <p>1</p>

	<input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	2 3 4
A17	What degree of difficulty have you experienced with <i>light domestic duties (cooking, dusting etc)</i>? <input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme	0 1 2 3 4
TOTAL		

Thank you very much for completing all the questions in this questionnaire.

Appendix 3

Consent Form

See www.orthoconsent.com

References

- ¹ Dawson J, Fitzpatrick R, Murray D, Carr A. **Questionnaire on the perceptions of patients about total knee replacement.** J Bone Joint Surg Br. 1998 Jan;80(1):63-9.
- ² Moonot P, Medalla GA, Matthews D, Kalairajah Y, Field RE **Correlation between the Oxford Knee and American Knee Society scores at mid-term follow-up.** J Knee Surg. 2009 Jul;22(3):226-30.
- ³ Bellamy N Buchanan WW et al. **Validation study of WOMAC: A health status instrument for measuring clinically important patient relevant outcomes to antirheumatic drug therapy in patients with osteoarthritis of the hip or knee.** J Rheumatol. 1988; 15: 1833-1840.
- ⁴ Roos EM, Roos HP, Lohmander LS, Ekdahl C, Beynnon BD. **Knee Injury and Osteoarthritis Outcome Score (KOOS)--development of a self-administered outcome measure.** J Orthop Sports Phys Ther. 1998 Aug;28(2):88-96.

The Profile of your Surgeon

Yega Kalairajah graduated from Cambridge University and, Guy's and St. Thomas' Hospital in London in 1995. He carried out his basic surgical training in South East London (King's) and subsequently went on to do his Orthopaedic training in the South West London Region (St.George's). After completing his FRCS (Tr & Orth), Yega spent a year of advanced training in Sportmed.SA, Adelaide, Australia in Sports Surgery, Arthroscopy (keyhole surgery) and Arthroplasty (joint replacement) surgery.

On completing his Certificate of Completion of Specialist Training (CCST), Yega took up a locum consultant position at Epsom and St. Helier's Hospital NHS Trust and the South West London Elective Orthopaedic Centre (EOC). EOC is the largest arthroplasty unit in Europe enabling Yega to be one of the highest volume hip and knee surgeons in the UK during his 18 month tenure at the unit. In Oct 2007 Yega was appointed as Consultant Orthopaedic Surgeon at the Luton and Dunstable University Hospital (L&D) with the aim of forming the hip and knee unit within the trust. The L&D now provides all cutting edge treatments available for hip and knee disorders to the region and further afield. He still maintains an Honorary Consultant status at the EOC unit. To date he has carried out well over a

1000 hip and knee replacement operations as a consultant and all his operative data is submitted to the National Joint Registry. This ensures effective monitoring of personal outcomes to ensure the highest quality service.¹

Yega has a committed interest in teaching and research and plays an active role in helping and supervising research and education at his base NHS trust. He is an examiner for the UCL medical students, is the Orthopaedic Tutor for senior trainees at the L&D and presents and teaches at national and international courses and meetings regularly. Yega has also completed a Master's degree in Engineering on hip acetabulum (socket) fixation techniques. He has published extensively in Orthopaedic journals on hip, knee and sports surgery and has done several pioneering works on computer assisted/navigated orthopaedic surgery.² He is also internationally quoted on his orthopaedic hip and knee sub-scoring system for identifying failing hip and knee implants.³

His areas of special surgical interest include

- **Sports Surgery** particularly of the hip, knee and ankle (e.g. ACL, Meniscal repairs, Chondral surgery, Nerve entrapments)

- **Early intervention (Young adult) hip and knee surgery** – Hip arthroscopy and Knee arthroscopy, osteotomies and partial joint replacements.
- **Primary and Revision Hip and Knee Arthroplasty** (including navigation and patient specific instrumentation).

Yega consults at Spire Harpenden on Monday and Tuesday evenings, Friday afternoons and Saturday mornings , and in the Cobham clinic in Luton on Tuesday afternoons. Emergency appointments can be organised by his secretaries outside these times.



¹<http://www.njrsurgeonhospitalprofile.org.uk/SurgeonProfile?gmccode=4209982>

²<http://www.ncbi.nlm.nih.gov/pubmed?term=kalairajah%5BAuthor%5D>

³<http://www.nzoa.org.nz/system/files/NJR%2014%20Year%20Report.pdf>