



AFFIX PATIENT DETAIL STICKER HERE	NHS Organisation.....
Forename.....	Responsible surgeon.....
Surname.....	Job Title.....
Hospital Number.....	
D.O.B...../...../.....	No special requirements <input type="checkbox"/>

<p><b>OPERATION:</b> ..... Proximal tibial osteotomy Distal femoral osteotomy</p> <p style="text-align: right;">(Delete as appropriate)</p>
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**PROCEDURE:** The knee joint is formed where the thighbone (femur) meets the shinbone (tibia). “Wear and tear” arthritis (or osteoarthritis) can develop in the knee joint, which can become painful causing reduced movement and limiting your activities. Osteoarthritis can affect both the inner and outer aspects of the knee joint but sometimes one side is affected more than the other. An osteotomy is an operation done to transfer loads from the worn part of the joint onto the healthier side. This will help reduce pain and delay further damage to the joint. . This operation is more suitable for a younger, more active patient, especially in the presence of a “bow-legged” or “knock-kneed” deformity. However, the operation does not remove osteoarthritis from the knee.

Your surgeon will see you before the operation. The surgeon will mark your leg with a permanent marker pen to make sure the correct leg is operated on. If you have any questions, now might be a good time to ask them.

An anaesthetic will be given in the anaesthetic room, next to the operating theatre. This can be either a general (when you will be asleep) and/or a regional (when just one area of your body is numbed). You will be lying on your back on the table for the operation. When you are asleep, a tight inflatable band (tourniquet) will wrap around your thigh. This is to limit the amount of bleeding. The surgeon will clean the leg with anti-septic solution and place clean towels (drapes) around the site.

Depending on your X-rays and the surgeon’s decision, an incision will be made either on the inside or outside of your leg and may be above or below the knee. The bone will be cut in a controlled manner and the position of the bones adjusted. They will then be fixed into position with plates and screws. An X-ray machine will be used to guide the surgeon and to check the position of the bones, plates and screws during the operation.



The skin can be closed with dissolvable stitches under the skin (sutures). Some surgeons may use stitches above the skin (which will need to be removed in 7 to 10 days). Some surgeons prefer metal clips, called skin staples. All techniques are effective and it comes down to surgeon's preference. When the operation is over, you will be taken to a recovery room and then back to a ward.

When the anaesthetic wears off, your leg will be sore - this is normal. You will have a bandage across the lower leg. If the pain is excruciating, you must tell someone.

You will likely need to stay in hospital for one night – this will give you time to get used to walking with crutches and to make sure you are comfortable enough when you go home. You will have further X-rays after the operation before you leave hospital to check the final result.

You may need to wear a knee brace for the first week following the operation and you should not put any weight through the knee for around 6 weeks. Physiotherapists will help you learn how to walk with crutches without putting weight through the affected leg. You will need to have outpatient physiotherapy to prevent stiffness in the knee after the operation. Follow up with your surgeon will be arranged for you too.

\*\*\*Please be aware that a surgeon other than a consultant, but with adequate training or supervision may perform the operation\*\*\*

### **ALTERNATIVE PROCEDURE:**

Osteoarthritis only requires an operation if you and your surgeon agree that it significantly affects your daily activities or quality of life. Therefore, there is the option to **delay or avoid an operation** if you are coping adequately. Symptoms of arthritis can be managed with anti-inflammatory medications and/or steroid injections and/or physiotherapy. However, these treatments will not cure or remove osteoarthritis and later you may wish to opt for treatment.

An alternative operation is a **total knee replacement**, when both joint surfaces are replaced with synthetic implants. Knee replacements can last several years but we know that total knee replacements do not last as long in younger or more active patients as in older patients. Therefore, your surgeon may advise that this option is kept in reserve in case the arthritis significantly worsens in later years. It is possible to have a total knee replacement after a proximal tibial or distal femoral osteotomy.

*You are of course entitled to a second opinion.*



## RISKS

As with all procedures, this carries some risks and complications.

### COMMON (2-5%)

**Pain:** There will inevitably be some pain after the operation around the operation site. If you are in pain it is important that you ask for pain killers. Pain will decrease over the next few days to weeks as the bone heals and the swelling decreases. Very rarely, pain may continue. Pain at the knee is common after the operation.

**Infection:** The wound site may become red, swollen and painful. There may also be discharge. If this occurs, antibiotics may need to be given. If the metalwork becomes involved, it may require removal. There may be spread of the infection to bone or blood (sepsis). Again antibiotics may be necessary. Extremely rarely, very severe local infections may require the leg to be amputated.

**Numbness:** The skin around the wound sites may be temporarily or more permanently numb.

### LESS COMMON (1-2%)

**Bleeding:** There will be some bleeding. This is usually minimal and can be stopped at the time of operation. Very occasionally a blood transfusion or iron tablets may be necessary

**Blood clots:** a DVT (deep vein thrombosis) is a blood clot in a vein. This usually presents as a red, painful and swollen leg. The risks of developing a DVT are greater after any surgery (and especially bone surgery in the leg). Although not a problem themselves, a DVT can pass in the blood stream and be deposited in the lungs (a pulmonary embolism – PE). This is a very serious condition which affects your breathing. Your surgeon may give you medication through a needle to try and limit this risk of DVTs from forming. Some centres will also ask you to wear stockings on your legs, while others may use foot pumps to keep blood circulating around the leg. Keeping mobile following your surgery is one of the best ways to prevent blood clots from forming.

**Stiffness of the joints:** In some cases this operation simply does not achieve the results expected. This can occur due to more advanced osteoarthritis in other areas of the joint, especially in the cartilage behind the kneecap. If you continue to have pain or do not achieve the results that you expect from the operation, you should speak to your surgeon who will be able to talk to you about treatment options.

### RARE (<1%)

**Removal of metalwork:** this may be necessary if the metalwork is irritating or painful for you or if it damages the skin. Rarely, the screws may move and can enter the joint itself; very rarely, the metalwork can become infected – both of these complications may require removal of metalwork. If you have a total knee



replacement in later years, the screws and plates will need to be removed prior to knee replacement surgery.

**Abnormal wound healing:** the scar may become thick, red and painful (keloid scar). This is more common in Afro-Caribbean people.

**Deformity of the leg:** This operation means that the shape of the leg will change but this is intended. However, the bone may not heal in the exact alignment that your surgeon planned. This may require physiotherapy or a further operation.

**Delayed or non-union:** as the bone is being broken in a controlled way, the cut bone ends may not join adequately. The risk of this is greatly increased if you smoke.

**Damage to the skin under the tourniquet:** this may require dressing, surgery or skin graft. There may also be numbness of the skin under the tourniquet although this is usually temporary.

**Chronic Regional Pain syndrome:** this is when pain persists in the operated limb long after the operation – it can be difficult to treat but specialists can help with symptom control.

**Compartment syndrome:** this is a build up pressure within the lower leg and can cause pain, nerve damage, blood vessel damage and muscle damage. If this occurs, an emergency operation will have to be performed to prevent death of tissue of the leg/foot.

**I have read/ understand** the procedure, risks and complications. I have asked any questions and raised any immediate concerns I might have. I understand another surgeon other than my consultant may perform the operation (although they will have adequate training/supervision).

**I understand** that I will have the opportunity to discuss the details of anaesthesia with an anaesthetist before the procedure

**I understand** that any procedure in addition to those described on this form will only be carried out if it is necessary to save my life or to prevent serious harm to my health

Signature.....

Print name.....

Date.../.../....

2<sup>nd</sup> Confirmation.....Date:...../...../.....

**NAME of SURGEON (Capital letters)**.....

**SIGNATURE of SURGEON**.....

**POSITION**.....**DATE**...../...../.....



**British  
Orthopaedic  
Association**

If you have any complaints about your treatment or your care, you are always encouraged to discuss them with your surgical team.

However, if you wish to complain to the trust, each hospital will have a PALS or Patient Advise and Liaison Service. The head nurse on the ward or out patients' clinic can direct you to them. The PALS team will treat all complaints seriously.