

Trauma & Orthopaedic Directorate

Anterior Cruciate Ligament Surgery The Procedure

How is the operation done?

What kind of anaesthetic is used for the surgery?

In the vast majority of cases you will have a general anaesthetic. Occasionally a nerve blocks and/or an epidural may be used by the anaesthetist in the operating theatre and will result in your leg feeling numb and weak when you wake up.

What is used to make the new ACL

There are 2 ways of obtaining tissue for the new ligament. The most common way is to take tissue from either the injured or normal knee. This is called autograft. The most common tissue used to make the new ligament is either to use the hamstring tendons (the most commonly used graft) or the central portion of the patella tendon which is called a BTB graft or bone-tendon-bone graft.

Sometimes it is appropriate to use donor tissue. This is called an allograft.

Your surgeon will explain the pros and cons of the different grafts and choose what is most appropriate for you.

How is the graft introduced into the knee?

The most common way for the graft to be introduced into the knee is by making a tunnel starting below the knee in the

shin bone. The tunnel is made using a special device called a jig that aims the drill to the correct location in the knee. A socket is then made in the thigh bone and the graft is pulled up the tunnel in the shin bone, across the knee joint and up into the socket in the thigh bone.

The TransLateral Technique

At Basingstoke we have been pioneering a new way of carrying out this procedure. We have called this the TransLateral technique. The normal ACL has quite a large attachment area or foot print on the side of the thigh bone. The TransLateral technique allows the surgeon to reliably identify the anatomy and place the new ligament in a more precise and anatomic location. This has led to the development of a series of new instruments to make anatomic ACL surgery more reliable and reproducible for surgeons.

All Inside ACL surgery

The most common way of carrying out the procedure has been described above. At Basingstoke we also offer an all inside ACL reconstruction. Traditionally both hamstring tendons are taken to create the graft. The 2 long tendons are folded to create a “ 4 strand graft”. For the all inside only one tendon needs to be taken for the graft. Rather than make a complete tunnel in the tibia and a socket in the femur, the all inside technique involves making a socket in the tibia and the femur. The all inside technique therefore requires 50% less tissue for the graft and less bone to be removed than with a standard ACL reconstruction.

How is the new ACL fixed?

Once the graft has been pulled into position it is fixed with either screws or buttons, which hold / suspend the new ACL in the tunnels or sockets.

Other surgery carried out at the time of the ACL reconstruction

If there is any joint surface damage or meniscal cartilage tears present at the time of the reconstruction this will be dealt with at the same time as your ACL is reconstructed.