



Enhanced Recovery
After Surgery
in Transplantation

ERAS and kidney transplant

What is it, and why is it important for me?



Blood and Transplant

Enhanced recovery after surgery (ERAS) is a programme designed to help you to recover more quickly from your transplant operation and reduce the risk of complications after surgery.



The programme keeps you informed and enables you to be involved in your own care. Being better informed about what to expect can help to improve your overall experience. To get the best from your recovery after your transplant, it is important that you take an active part, so that you can help yourself to recover as well as possible. This will help you to be better prepared to look after yourself when you leave hospital.



An enhanced recovery shared care plan will guide you about what to expect each day, and you can record your progress and experiences. (If you wish, a friend, relative or carer can also be involved and help you with your care).



Aiming for certain targets can reduce the likelihood of complications, (for example, we know that the earlier patients get out of bed, start walking, eating and drinking after surgery, the less likely they are to suffer complications such as chest infections, blood clots and constipation. This early progress helps to speed up the process of getting back to independence and enjoying improved health).

Aiming for a target date to leave hospital, allows you and the transplant team to stay focussed on your recovery and helps you to plan for going home. Don't worry if you don't meet your targets. Every patient experience is different, and there can be 'bumps in the road' along the way. The team will support you to recover at a pace that's right for you. The transplant team will adapt the programme where needed to ensure that you receive the high-quality care you need. You will not be discharged from hospital until you are ready.

Fluid management.
Keeping hydrated, without
having too much fluid

**Fewer tubes and lines, and
removing them sooner**




Keeping well on the waiting list
Early and regular mobility
Building strength and fitness after discharge

Good pain control with fewer side effects

**Being better informed about what to expect and
how you can help own your recovery**

**Helping you to prepare for discharge and how to
manage at home**

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- A blue icon of a house with a white outline. Inside the house, there is a white medical symbol (a caduceus) on the wall and a small figure of a person standing in the doorway.
- **Keeping healthy and well to help prepare your body to cope with the stress of the transplant operation**
 - **While you are waiting for your transplant, there are things you can do to prepare and help your body to cope with the transplant operation when it happens. This can reduce the chances of developing complications both during the transplant operation, and as you recover.**
 - **Areas you can focus on to help with this include:**
 - **Nutrition (making sure you eat a well-balanced diet with all the nourishment you need)**
 - **Stopping smoking**
 - **Looking after your heart and lung health through regular exercise. Positive changes (even if only small) can help improve the body's ability to cope with the transplant operation. A longer walk, quicker pace, extra flight of stairs etc. There are also electronic platforms that can help you exercise from your own home, (such as Kidney Beam <https://beamfeelgood.com/home>).**
 - **Preparing you for what to expect when you come to hospital for your transplant is important to help with reducing anxiety and supporting you to take an active role in your transplant journey.**

A blue circular icon containing a white silhouette of a person sitting and reading an open book.

***(Optional)* Enhanced recovery shared care plan**

You will be provided with an enhanced recovery shared care plan, designed to support you whilst you are in hospital. It provides you with information about what to expect each day, as well as encouraging you to record your progress. We hope this will help you to prepare for when you leave hospital, enabling you to have a good understanding of how to monitor your progress and look after yourself at home.



The way we manage fluids during the operation and in the first few days after transplant:

It is important to have enough fluids to keep you hydrated, but we also know that too much fluid can slow down your recovery.

- Before the operation, you will need to fast. The team may be able to give you some water to sip until you go to theatre. This is called 'sip til send'. Ask the team about this.
- You will be encouraged to start drinking as soon as you feel able, after the operation
- The transplant team will aim to stop your drip (Intravenous fluids) as soon as possible. If the plan isn't clear, you can ask them about this.
- The team will guide you about how much to try to drink each day. Some patients can find this difficult after being on a fluid restriction. If you are struggling, talk to the nurses.
- Recording your weight each morning, as well as keeping track of what you're managing to drink and how much urine you are passing, can all help when deciding how much fluid you need.
- You can use your journal to help you to record your progress



The way we manage pain to provide good relief and to minimise side effects from the drugs.

- **After a kidney transplant operation, it is expected that you will have some discomfort, particularly around your wound as you recover. There are lots of ways the team can support you to make sure this is as manageable as possible.**
- **You can use these three questions to guide you;**
 - **Can you cough?**
 - **Can you take deep breaths?**
 - **Can you move around?**
- **It is important that you can answer yes to all three questions. Answering no because of discomfort, suggests that your pain is not well controlled, and this can lead to complications (such as chest infections) and can slow your recovery. Let the transplant team know if you are finding any of these difficult. There are lots of different things we can use to help with your pain.**
- **We know that certain types of pain relief called opiates, often provide good pain relief, but over time they can build up, leading to unpleasant side effects that can slow down your recovery (such as sickness, constipation and drowsiness). We try to keep these kinds of pain relief to a minimum. For example, you may have a PCA (patient-controlled analgesia button) to begin with, but the team will aim to stop this within the first 12 hours after surgery. After this you will have the option of other pain relief, with fewer side effects to keep you comfortable and this will help you move around more easily.**



Early and regular mobility and building strength.

- We know that getting up and moving again as early as possible after an operation is very important. It can help to reduce the risks of complications, such as blood clots developing in your legs and lungs. It can also help to speed up your recovery and reduce muscle wastage from inactivity.
- After your transplant operation, the team will aim to help you to get out of bed, a few hours after you arrive back on the ward. You will be given some important daily targets to try to achieve, (such as walking and sitting out in your chair). If you have mobility difficulties, don't worry, this will be tailored to meet your needs. All patients are different, and some days may be harder than others as you recover. Don't worry if you don't meet all your targets. Every little helps and each step is important. Just do what you can and keep a record of your progress in your enhanced recovery shared care plan.
- As you continue to recover, the team can give you some simple and safe exercises to try. It is important for you and the health of your kidney that you try to begin to rebuild your strength.





Tubes and lines are sometimes necessary but can be uncomfortable, make it more difficult for you to move around, and can increase the likelihood of infections.

- **Drains – (tube coming from near your scar that drains excess fluid from the operation)**

Where possible, the surgeons will aim to avoid drains altogether. If drains are needed, they will try to limit the number of drains they use. If you do need a drain, the team will monitor it closely and aim to remove it as soon as possible. You can play a role in your recovery by asking about this each day, encouraging the team to be proactive and remove it as soon as it is safe to do so.

- **Urinary catheter – (tube into your bladder, to pass urine into)**

The team will try to remove your urinary catheter as soon as possible after the transplant operation. This depends on certain criteria that the staff will consider. You can also encourage the team to be proactive with this by asking them about it each day. If your catheter needs to stay in longer, the team will explain this to you. They may be able to offer you a different type of drainage bag to make it easier for you to move around, (ask your team about this).

- **Other lines**

It may be necessary to insert a line into your neck or groin to give some types of medicine or to help with dialysis if needed. The team will avoid these lines wherever possible. They will explain the need for any lines to you.



Preparing to look after yourself and your new kidney

It is important to think about how you will cope at home and if you will need extra support. Discuss this with your friends, family and nursing staff at an early stage, if you can.

Understanding your medication is an important part of looking after yourself and your new kidney. It's important to take medications at the right times and understand the possible side effects that may occur. The team will support you with this.

As you prepare to leave hospital, the team will also provide you with information about how to look after yourself and your new kidney. Rejection and infection are two of the most common complications after transplant. It is important to know the signs and symptoms so they can be treated early.

When you do leave hospital, remember that you are not alone. You will be supported with regular clinic appointments and your team will make sure that you know who to contact with any questions or concerns, day or night. Leaving the hospital is the start of a long journey of recovery, often with some challenges along the way. Having a transplant can be an emotional experience and the transplant medications can also affect your mood. There are support services available, offering a range of practical, social and emotional support including from local and national Kidney charities. Ask the transplant team about what is available near you.



It is important to try to build up your strength and fitness levels after the transplant, to keep you and your new kidney working well for as long as possible. Before you leave hospital, the transplant team can provide you with some guidance and simple exercises that are safe to do. Having a transplant can be a great motivator to make changes to your lifestyle. This can include stopping smoking, eating a healthy diet and increasing your activity levels.

Patients can often gain weight following transplant. This can be because of many factors including transplant medications, increased appetite and increased risk of diabetes. You can make a difference and keep yourself as healthy and as active as possible. Your diet may change after the transplant, including what food groups to increase and what to avoid. If you follow dietary restrictions before the transplant, it is likely these will change. Ask the team about what is right for you.



With your mobility, start small and slowly increase your levels of activity as you are able. If you would like help with this, ask the transplant team about what is available in your area. You may wish to consider using an electronic platform to help you exercise from your home. (For example, Kidney Beam, which is designed to help kidney patients with their health and wellbeing <https://beamfeelgood.com/home>).