آغا خان یونیورسٹی ہسپتال
The Aga Khan University Hospital

Kidney Transplant

Patient Information

KIDNEY TRANSPLANT PROGRAMME

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

This booklet important information for transplant patients, donors and their caregivers. We highly recommend that you carefully go through the entire booklet and discuss concerns with the transplant team.

About AKUH kidney transplant services

At the Aga Khan University Hospital, our kidney transplant team is available to guide you at every stage of your treatment. We have a multidisciplinary team that consists of nephrologists, transplant surgeons, urologists, trained nurses, nutritionists, technicians, coordinators and pharmacists. They all work together to ensure a comprehensive approach, so your treatment plan is delivered to provide the best results for you.

What is a kidney?

We are born with two kidneys, which are bean-shaped organs located in the back, just under the ribs, one on each side of the spine. The left kidney is slightly higher in position as compared to the right kidney. The function of a kidney is to filter and remove waste products and excess fluid from the body through urine. When a kidney becomes diseased, it cannot perform this function in the way it should, and the waste and toxins can build up to dangerous levels in the body.

What causes a kidney to fail?

Kidney failure means that the kidney is not working properly. The most common causes include:

- Poorly controlled diabetes
- Poorly controlled high blood pressure also known as hypertension
- Kidney stones
- Recurrent urinary tract infections
- Long term kidney inflammation, also known as chronic glomerulonephritis
- Cysts that develop in the kidney due to a genetic disorder known as polycystic kidney disease
- Excess or long-term use of some medicines, e.g. pain killers like ibuprofen and naproxen
- Damage caused to the kidney when urine goes back up from the bladder to kidney, known as reflux nephropathy.

How will I feel if my kidney is failing?

The common symptoms of kidney failure include:

- A generalised weakness and tiredness
- A generalised swelling, swelling in the feet, legs and around the eyes
- Trouble sleeping
- Feeling of nausea, vomiting and a loss of appetite
- Decreased amount of urine
- Shortness of breath that you cannot explain.

What are the treatment options for kidney failure?

If you have been diagnosed with kidney failure, you and your doctors will mutually decide the best treatment options suited for your medical history, health status and personal situation will be taken into account while deciding the treatment options. **Options include:**

Hemodialysis: This a procedure by which a dialysis machine is connected to you as needed by your body. The dialysis machine and a special filter called an artificial kidney, or a dialyzer, mimics the actions of your kidneys. Based on your clinical condition and treatment plan, your doctor decides for access and how often you require dialysis.

Peritoneal dialysis: This procedure involves instilling a special fluid into the abdomen. Your doctor will insert a thin tube (called a "catheter") in your abdomen through which excess waste, salt and water from the blood is drained out of the abdomen. Peritoneal dialysis is mostly performed at home by the patient themselves or their caregivers. A nurse will teach you or a family member who will be carrying out the procedure, how to set up and use the equipment.

Kidney Transplant: Also known as Renal Transplant is a surgery in which a healthy kidney is taken from a healthy person known as the donor and placed into a person whose kidneys are no longer functioning properly, known as the recipient. A kidney transplant is usually the treatment of choice for most patients with kidney failure, because a successful kidney transplant improves your quality of life and increases your lifespan.

In order to have a successful transplant, you and your donor will have to undergo a series of laboratory tests and radiology scans to determine if you are

suitable for transplant. Tests are also conducted to measure if the donor's healthy kidney matches your tissues and if your body will be able to accept it. Unfortunately, many kidney failure patients have no option but to continue with dialysis until a suitable donor is found.

When it is not appropriate for patients to undergo kidney transplant?

You may not be suitable for a kidney transplant if you:

- Have cancer or have recently received treatment for cancer
- Suffer from multiple diseases or co-morbidities with reduced life expectancy
- Have an active infection e.g. tuberculosis (TB), viral etc
- Suffer from neurological or psychological disorders
- Are significantly overweight

What are the different types of kidney transplants?

There are two types of kidney transplants: living donor transplant and deceased donor transplant.

Living donor transplant: As the name suggests, in this form of transplant, the kidney donor is healthy and living. The Sindh Human Organ Transplant Act (SHOTA) has rules that governs and defines who can be a kidney donor for a transplant operation. SHOTA has legal conditions that must be met for all transplants performed and has divided the category of living donors into two segments:

a) **Living-Related (Blood Relative):** a spouse (husband or wife) or a blood relative, including a parent, sister, brother, children, half-sister, half-brother, uncle, aunt, first cousin, nephew, niece, wet mother or her children (with court evidence) can agree to donate a kidney.

b) **Living-Non-Related (Non-Blood Relative):** a person, who is not related through blood to the patient, includes friend or acquaintance.

Deceased Donor Transplant: In this case, the kidney donor is deceased but has provided legal consent before passing away to donate his or her kidney. Currently, deceased donor transplant services are not available at our Hospital.

What is a multidisciplinary transplant team?

A multidisciplinary transplant team, comprises of various healthcare professionals from different specialties who work together to deliver a customised treatment plan for every individual patient.

They discuss the benefits of the kidney transplant, the risks of surgery and inform you of possible complications, ensuring that these are properly addressed and that you and your donor have the best opportunity for success. Our transplant team includes the below specialists:

The **Transplant Nephrologist** is a medical doctor with expertise in nephrology and transplantation medicine. The doctor is responsible for the medical management of your kidney disease, determines if you are medically suitable for a transplant and takes care of you after the transplant.

The **Transplant Surgeon** is a doctor with special training and expertise in kidney transplantation and will meet with you and discuss the appropriateness of a transplant based on the information obtained during your evaluation. The surgeon will also discuss the significance of undertaking a kidney transplant, the risks of the surgery and the possible complications associated with the transplant surgery.

The **Psychiatrist** is a doctor with expertise and special training in mental health. This doctor is responsible for conducting an in-depth psychiatric evaluation and assessment for both, you, the patient, and your donor. Having a kidney transplant or donating a kidney may cause some fear, anxiety, inability to sleep at night and depression. It will take time to adjust to life with your transplanted kidney and the medications that you must take. Our psychiatrist will help prepare you deal with these issues and be available to guide you if you need additional counseling.

The **Transplant Anesthesiologist** is a doctor with special training in ensuring that you and your donor are safe and pain free during the transplant. This doctor will determine the type of anesthesia that will be used during the surgery and can explain the risks and benefits of the anesthesia. You and your donor will be required to provide informed consents.

The **Transplant Coordinator** is a registered nurse with special training in kidney transplantation. Our transplant coordinators are equipped to provide

you and your donor with education throughout your transplant process, from the time of evaluation, during transplantation and for years afterwards. A coordinator will be assigned to meet with you to evaluate your ability to cope with the stress of transplantation, and your ability to follow a rigorous treatment plan, both before and after transplantation. Your coordinator will also help you with coping strategies and identifying your support network. Your coordinator is your facilitator throughout the transplant process and is available to answer any questions. You are encouraged to bring family members to these meetings.

The **Advocate for the Living Donor** an individual who is specifically appointed and will be introduced to the living donor as their donation advocate the advocate has knowledge of living donations, transplantation, medical ethics, and the requirements of the donor informed consent. As there are significant risks associated with donation, living donors face difficult decisions related to providing organ donation.

The transplant coordinator will introduce donor advocate to the kidney donor once the potential donor is identified after the first CDC cross match test.

The donor advocate is not part of routine transplant team and is responsible to:

- Ensure the rights of the living donor are protected.
- Ensure that the donation of an organ is voluntary as living donors may sometimes feel obligated to donate or may feel pressured into donation. In case any uncertainty or coercion is observed, the advocate will report to the transplant team lead.
- Support the living donor. Informing and respecting the living donor in a culturally appropriate manner during the decision-making process.

The **Financial Counselor** has special training in the financial aspects associated with the transplant. He or she will discuss the costs with you including the long term financial impact that comes from the need to have regular medical tests and follow-up, and daily medication. If the ability to pay becomes an issue, the financial counselor can help determine if you are eligible for the AKUH patient welfare and/or Zakat programmes.

The **Transplant Dietitian** has special expertise in the nutritional requirements of kidney disease patients. The dietitian will perform a detailed nutritional

assessment and can provide you and your donor with nutrition education throughout the transplant process.

The **Transplant Pharmacist** has special training and knowledge on the multiple medication requirements of transplant patients. The pharmacist will review all your medications throughout the transplant process and can help you understand your medications, prepare you for and help minimise any side effects, check for medication interactions and suggest changes to maximise the overall results.

Special Consults
Some patients may be referred to multidisciplinary specialty physicians for consultation. These specialists include, but are not limited to, hematologists, vascular surgeons, pulmonologists, cardiologists, dentists and dermatologists. At the Aga Khan University Hospital, we offer all services, all under one roof including detailed diagnostics and laboratory testing. In cases where some patients may need to be referred to another doctor, they can be conveniently seen here in our Hospital and their medical records are easily accessible which ensures continuity of care.

The kidney transplant process

When a healthy kidney is available for transplant, your medical team will begin the process of taking care of you before, during and after your transplant.

Step 1: Assessment of your eligibility for kidney transplant

Before you can have a kidney transplant, the transplant team including the nephrologist, transplant surgeon and transplant coordinator will talk to you and your donor about the procedure and examine you both.

During the evaluation, the transplant team may decide not to proceed with the transplant due to you or your donor's health or clinical condition.

The following tests/assessments are required as part of the evaluation:

- A **general health assessment** which involves a full medical history and physical examination.
  A psychological and **emotional** evaluation to make sure you are

emotionally prepared for the surgery, care after the transplant and living with a transplanted kidney.

- **Compatibility tests** involve knowing the blood type, tissue type and cross match for you and your donor. These tests ensure that the healthy kidney from your donor matches your body and has a high probability of acceptance. A blood test may be done to check the function of your heart, kidneys, liver, thyroid and the immune system. This will include blood sugar control and electrolyte balance as well as tests for certain viruses e.g. hepatitis B, C, HIV/AIDS and IGRA (Interferon Gamma Release Assay) to test for TB (tuberculosis).
- A **chest X-ray** to check the size of your heart and lungs as well as signs of infection, disease or any other abnormalities.
- **Echocardiogram,** an ultrasound, to check for any problems with the chambers, valves and pumping function of your heart.
- **Electrocardiogram** to test the rhythm of your heart and make sure there are no abnormalities.
- **Cardiac stress test** to ensure that your heart is strong enough for the transplant surgery.
- **Cancer screening tests** performed on patients with a history of cancer.
- **Dental checkups to check** for and treat infections, cavities or gum disease before the transplant. If these are not corrected, they can cause health problems after the transplant.

After the assessment, the transplant team will meet to discuss the results and concerns, if any to decide if you are suitable for the transplant. You will be informed if you are suitable for transplant and a treatment plan will be developed for you specifically.

Healthy living before your transplant

Should I stop smoking?
Yes, we advise patients to give up smoking before the transplant.

Do I need to lose weight?
If you are overweight, you are unlikely to be suitable for transplant. The Body Mass Index (BMI) is a measure of your weight relative to your height. A healthy BMI is between 20-25 kg/m2. If your BMI is more than 25kg/m2 you are at risk of health problems. If your BMI is more than 29 kg/m2 you might have complications during your transplant operation. We would encourage you to lose weight if your BMI is more than 29 kg/m2. Seek medical advice for weight reduction.

Can I continue to exercise?
Yes, you can. It is important to stay healthy so speak to your healthcare team in this regard. Your doctor will advise you on the types of exercises you should be doing with your health condition.

Step 2: The Kidney Transplant

During the transplant surgery, the donated healthy kidney will be placed at the right or left side of the lower abdomen, just above and in front of your hipbone. This operation usually takes 4-6 hours.

After the surgery, you will be monitored for post anesthesia recovery. Once you are stable, you will be shifted to a single room in our Special Care Unit for close monitoring. The length of your hospital stay will depend on your health and how well the transplanted kidney is functioning. The average hospital stay for kidney transplant patients is 5-7 days.

Functional life of a transplanted kidney from a living donor
On average, the survival of the transplanted kidney at 10 and 15 years is about 75-76% and 35-45%, respectively. Most patients will require a second transplant after 15 years; however, some kidneys may continue to function even after 15-20 years. The survival of the transplanted kidney depends on many factors, including, degree of match, sudden and long-term rejection episodes and infections.

Can I have another transplant if one fails?
Sometimes a kidney transplant fails. If this happens, another transplant will be considered if you are fit and healthy enough, and you have another donor available. The success rate for the subsequent transplant is generally as good as for the first. You will also need to go through the same tests again to make sure you are fit and healthy enough to have another kidney transplant.

Medicines
After your surgery, it will take some time for your body to accept the new kidney. You will be given medicines to prevent your body from rejecting the kidney, including immunosuppressive medicines, also known as anti-rejection

medicines. These drugs suppress the immune system enough to keep your transplanted kidney healthy. The life of your kidney depends on these medicines and you must take them for the rest of your life; never allow yourself to run out of them. If you stop taking your medicines, even after years of successful transplant, your body will reject your kidney. Altering your schedule may also result in an episode of rejection and damage your new kidney.

Do not take any medicines other than those prescribed by your transplant team, including medicines for common ailments such as cough, cold and allergy, without checking with your transplant team first. Other medicines can interfere with the absorption of your transplant medicines and cause an unwanted increase in the level of medicines in your blood, which may damage your kidney. If you have any questions about your medicines, you should speak with your doctors and/or our pharmacists who are available 24/7 on the AKUH drug and poison hotline.

Side Effects of Medicines
You might experience some side effects from the below mentioned medications. Side effects may vary patient to patient and may not be limited to the below.

Tacrolimus (FK 506):
This is one of the medicines used to prevent rejection of your transplanted kidney. Your doctor will advise you on how long to take it. Common side effects of this medicine are difficulty in sleeping, tremors, changes in kidney function, increased risks of infection, burning or tingling in your hands or feet, headaches, high blood sugar, hair fall and elevated potassium level.

Cyclosporine:
This is another medicine used in combination with other drugs to help your body accept your new transplanted kidneys. Its side effects may include swollen or inflamed gums, sweating or hot flashes, tingling in your hands or feet, tremors, runny nose, high blood pressure and sugar, and increased hair growth.

Prednisolone:
This medicine is used to prevent or treat rejection. It is a steroid that is like a hormone produced by your body. Its side effects may include mood swings,

increased appetite, changes in vision, high blood pressure and sugar, weight gain, fluid retention and joint destruction/ bone thinning.

Mycophenolate Mofetil:
This medicine is used in combination with other immunosuppressive medicines to prevent rejection of your transplanted kidney. Its side effects may include decrease in white blood cells or platelets, loss of appetite, stomach pain, nausea/vomiting, diarrhea and increased risk of infection.

Sirolimus (mTOr inhibitor):
This medicine is indicated for the prevention of organ rejection and works in combination with other medicines. Side effects may include diarrhea, high blood pressure, joint pain, rashes/acne, increased risk of infection, low potassium and high cholesterol and triglyceride levels.

ATG (Anti-thymocyte Globulin):
This medicine is administered in combination with other drugs during hospitalisation. Most side effects are temporary and may include chills/fever, pain, headache, shortness of breath, increased heart rate, elevated potassium levels and increased risk of infection.

Basiliximab
This medicine is used to prevent rejection by suppressing your immune system. It is also only given while you are at the hospital. Side effects are uncommon but may include: an upset stomach, edema, tremors, headaches, dizziness, chest pain, rapid heart rate, changes in blood pressure, urinary hesitancy, night sweats, muscle pain/cramps and blurred vision.

Diet
Your diet plays an important role in maintaining your health. The optimal function of your transplanted kidney is also influenced by what you eat. Individual needs vary; however, the main nutritional goals after transplantation are controlling blood cholesterol, uric acid levels and excessive weight gain. A regular exercise programme can enhance the achievement of these goals. Before you are discharged from the hospital, your transplant dietitian will review your diet plan with you and discuss guidelines on what you can eat and what you should avoid. At the time of discharge, you will receive additional materials to help you manage your diet. The dietician will also be available to assist you in the clinic and during hospitalisation as and when needed.

Wound Care
No dressing is needed over your incision, but some light gauze may be applied if you have staples that are irritated by your clothing. To prevent infection, you are advised to shower, even if your staples are in place. The staples will be removed in the clinic about two weeks after the surgery. Your transplant nurses will further guide you about this.

Step 3: Discharge from the Hospital

Before you are discharged from the hospital, your transplant team will ensure that you and your family know the following:

1. All medicines by name, appearance, purpose, dosage and when to take them
2. Major side effects of these medicines and special precautions which you must take
3. How to check and record your vital signs twice daily
4. How to record your fluid intake and monitor your urine output
5. Signs and symptoms of infection
6. Signs and symptoms of transplant rejection
7. Diet and exercise regimen, you should follow
8. Appointments and schedule for returning to the clinic for follow-up care
9. How to contact the transplant coordinator in case of any concern

Step 4: Staying healthy after the transplant surgery

Following the surgery, the transplant team will assist you with rehabilitation and prepare you to care for yourself when you go home.

1. Ensure your home environment and the surrounding area are clean and dust/dirt free
2. Ensure clean drinking water and clean sanitation
3. Ensure there are no carpets, pets or mosquitoes inside your home
4. Stay away from children who have recently been vaccinated against polio or have received other live vaccines; or if they are sick
5. Stay away from individuals who have symptoms such as cold and cough
6. If you need any assistance, please contact the team on the numbers mentioned at the end of this reading material

Sex and Intimate Relationship
Below, are some common questions about intimacy following transplant surgery, and their answers.

When will I be able to start sexual activity again?
There is no specific time; when you feel well and comfortable enough, you may resume sexual activity.

What contraception should I use?
If you are a young woman and do not wish to conceive, you can use various types of contraception. Consult your transplant team before using any contraception.

Can I get pregnant after my transplant?
A female kidney transplant patient of child-bearing age generally resumes her menstrual cycle after transplantation and can become pregnant. However, pregnancies in transplant patients are considered high-risk. It is recommended that you wait one or two years before planning a pregnancy. This will give your body time to adjust to your new kidney. It is important to consult the transplant team before planning your pregnancy as it requires adjusting your medications.

Complications of kidney transplant surgery
Your transplant team will do their best to reduce any chances of complications by continuously monitoring your health. However, it is important that you and your family know the signs of complications of kidney transplant and remain alert. If you notice any problems, immediately contact your transplant team.

Below are some common transplant related complications; however, these may vary from patient to patient.

Infection: Anti-rejection medications interfere with your natural immunity. This means that you are at a higher risk of catching infections after your transplant surgery. If you notice any of the listed symptoms, inform your transplant team immediately:

- Fever above 100°F
- Burning sensation or pain during urination

- Blood in urine
- Shortness of breath
- Sore throat
- Cough
- Pus in the wound
- Muscle or joint aches and pains
- Severe headache

Rejection: Your immune system will see your new kidney as a foreign body and may not accept it. To prevent rejection, you must take anti-rejection medications for the rest of your life. The probability of rejection is low; however, it is very important that you learn to recognise the symptoms of rejection and to report these immediately, if noticed. Timely intervention by your transplant team and healthcare providers may help prevent rejection. Symptoms of rejection include:

- Fever above 100°F
- Decreased amount of urine output - less than 50% of the amount you are drinking in a 24-hour period. For example, if your intake is about 2000cc a day and your output drops to 1000cc or less, this is cause for concern. Your urine output should be nearly equal to your intake
- Increase in body weight by 5 pounds or more within 3 days
- Swelling or tenderness (pain on touching) at the surgical site
- Fluid retention, moderate swelling of face, feet, hands, ankles and/legs
- Two blood pressure readings taken one hour apart, more than 160/90 or less than 90/60 (note: this is not always a sign of rejection)

If your body is beginning to reject your new kidney, the blood urea, nitrogen and creatinine levels become raised and must be actively monitored by your transplant team to prevent rejection.

Delayed Graft Function: After your transplant, your new kidney may not immediately start functioning. This is known as a “sleepy kidney”, and results in the need for dialysis until the kidney "wakes up". Delayed function may last from a few days to several weeks.

Diabetes: Some of your prescribed anti-rejection medicines are known to cause high blood sugar levels. You will be routinely monitored after the surgery to check for diabetes through blood and/or urine tests.

Blood Pressure: High blood pressure is a very common complication following kidney transplantation, particularly during the early months while you are kept on high doses of steroids. Your blood pressure will be routinely monitored during your clinic visits, and you may be advised to monitor yourself at home as well.

Anxiety and depression: A serious operation such as a transplant can put a lot of mental stress on you and your family. Transplant patients may experience anxiety and depression during the treatment. We offer counselling services to help you adjust to your new life at home as well as return to work.

Activity

When you return home from the hospital, begin a daily routine of walking for exercise. Avoid lifting heavy objects over 2 kg. including lifting children or straining your abdominal muscles for at least six weeks. Lifting and straining may result in the opening of your wound or the formation of a hernia. Driving is not recommended for at least six weeks.

Avoid situations where you are in small, enclosed spaces with large groups of people. Wash your hands frequently. Do not share utensils, drinking glasses or toothbrushes.

Your transplant team will inform you when your condition is stable, and you are safe to return to work or school. Generally, this happens at about two to three months after the transplant.

GENERAL INFORMATION FOR THE LIVING KIDNEY DONOR

Living donation
Living donation takes place when a healthy person donates an organ for transplantation to another person. The living donor can be a family member such as parent, child, brother, sister or spouse or not related but emotionally connected to the patient, such as a friend. Altruistic donation is also a type of living donation, whereby the donor and recipient are neither related nor know each other.

Who can be a kidney donor?
If you are a healthy person in good physical and mental condition, you can

donate a kidney. Generally, the donor should be 18 years or older. There is no upper age limit to be a living donor, if you are in good health.

One of the prerequisites for donation is to have a normal kidney function. There are some medical conditions that could prevent you from being a living donor. These include uncontrolled high blood pressure, diabetes, cancer, HIV, hepatitis or other acute infections. Having a serious mental health condition that requires treatment may also prevent you from being a donor.

A donor is selected based on the following considerations:

- Should not be under any pressure to donate by the family or any other influence
- Must fully understand all the risks to their own health
- Should have good family and social support
- Should not have any alcohol or substance abuse problems

Advantages and outcomes of having a living donor

Kidney transplants performed from living donors have several advantages compared to transplants performed from deceased donors:

- In Pakistan, most living donor transplants are from family members who are genetically similar. A better genetic match reduces the risk of rejection and improves the chances of overall success.
- A kidney from a living donor usually functions immediately, because the kidney is out of the body for a very short time. Delayed function of the kidney may be seen in 3-5% of transplant patients.
- Living donor kidney transplants are highly successful and success rates continue to improve. Immediate rejection of the healthy kidney is extremely rare nowadays. However, problems may occur during or after the transplant surgery. Surgical complications include but are not limited to blood loss and urine leakage. Life threating complications including infections (bacterial or viral) and pulmonary embolism are uncommon but important enough to mention.

Is living donation safe for the donor?

This is the most frequently asked question from a potential donor. Almost all people are born with two kidneys. Donating a kidney to another person generally does not harm your health. Prior to donation the transplant team conducts a complete investigation to make sure that you are not at any additional risk of developing kidney disease yourself in the one remaining kidney after the donation.

The risk of developing kidney disease requiring hemodialysis after donation is extremely rare, at 0.08 per 10,000, 15 years after donation. This risk also depends on your race, gender and general health condition over the years and your lifestyle.

Surgery for removing the healthy kidney from the donor

The healthy kidney that is removed from you as the donor kidney is known as 'harvesting'. This surgery is performed under general anesthesia. There are two main techniques

1. Open donor nephrectomy (with small incision)
2. Laparoscopic donor nephrectomy

At AKUH, we perform the surgery using the open technique, whereby a small 08-10 cm cut is made on the abdomen.

Your risk of undergoing anesthesia as a donor is assessed before the surgery. The risk of serious complications during surgery is low. Bleeding requiring blood transfusions, wound infections, deep vein thrombosis leading to pulmonary embolism, lung infections and pain are the main mentionable complications. The risk of dying during surgery is extremely rare.

After the surgery, which lasts for 3-4 hours, you are shifted to recovery and monitored for hemodynamics, urine output and pain. After a few hours stay in the recovery, you are shifted to the ward. The pain usually settles after 48 hours. Your stay in the hospital ranges from 3-5 days.

When can I, as the donor, return to normal activities?

Although the time to heal varies, most donors can resume normal activity within 3-4 weeks after the surgery. Lifting heavy items including children, strenuous excercises and climbing stairs more then two flights must be avoided at-least 6 weeks after surgery.

As a donor, what type of medical follow-ups do I require?

After discharge from hospital you are required to visit the doctor after one week. After removal of stitches you should follow up with the doctor after about six months. The main aim of this follow up is to ensure that the health of your one remaining kidney is good. For the first year after donation, you are advised to have certain laboratory investigations and a kidney ultrasound.

What is it like living with one kidney?

Generally, it is considered safe to live with one kidney. Your transplant team will outline the possible risks, which include the most common as well as rare risks and risks specific to you based on your health status. Several studies have indicated that donors may experience:

- Slightly elevated blood pressure
- Slight increase in the level of proteins in the urine
- A slightly increased long-term risk of kidney failure compared to the general population

It is also important to be aware that risks across the board are very low. Every individual is different, and it is not possible to predict what may happen down the road.

What is my life expectancy after donation?

Living donation does not change your life expectancy. Survival after donation is the same as in the general population. In general, most people with a single normal kidney have few or no problems; however, you are encouraged to ask questions about your individualised risks from the transplant team.

What can I expect emotionally after donating a kidney?

Before the kidney donation, a psychological assessment is performed to ensure that you have no additional psychosocial risk. After donation, a very small number of donors have reported a range of mixed emotions, from joy and relief to anxiety and depression. Living donors generally rate their experience as positive. However, concerns about the transplant patient's outcome, as well as your own recovery, can contribute to feelings of anxiety, and you may experience a feeling of being let down afterwards. Feelings of depression among living donors are not uncommon, even when both the donor and patient are doing well.

If you find that you are struggling with mixed emotions any time after you donate, you should:

- Let your transplant team know how you are feeling, both physically and emotionally, during your follow-up visits
- Talk to the transplant coordinator for support and guidance
- Seek professional counselling to manage difficult emotions
- Talk with other living donors who can be particularly supportive if they have experienced similar feelings

Are there any dietary restrictions after donation?

After donation you should be able to go back to a regular, healthy lifestyle. Healthy individuals do not need to follow any dietary restrictions.

Can I become pregnant after donation?

For female donors, pregnancy after donation is possible but usually not recommended for at least six months after the donation. Living donors should talk to their doctor and the transplant team before planning pregnancy. Prenatal care is of utmost importance in kidney donors.

Generally, living kidney donors do well with pregnancy after their donation. However, like any other pregnancy, there is risk of gestational diabetes, pregnancy-induced hypertension (high blood pressure) and protein in the urine known as pre-eclampsia. Early identification of these conditions will help your doctors take timely actions and manage them appropriately.

Kidney Transplant Hotline

Monday to Friday, 8:00 A.M. to 3:00 P.M.: +92-301-8245171
Monday to Friday, 3:00 P.M. to 8:00 A.M and
on Weekends: +92-213-4865190/91

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