



## Pregnancy after a Kidney Transplant

### Pregnancy after a kidney transplant

If you have had a kidney transplant and are considering trying for a baby, this leaflet explains some of the important points to consider before pregnancy. Being prepared and as well informed as possible will mean you will be more likely have a healthy pregnancy and baby.

Most women with a kidney transplant have healthy pregnancies, but sometimes pregnancy can affect your health and your transplanted kidney function.

We will offer you and your partner a review in our pre-pregnancy counselling clinic to discuss how best to prepare in order to best look after yourself and your babies health during your pregnancy.

### When will it be safe for me to try to get pregnant?

If you have received a kidney transplant, we would recommend that your kidney function be stable for at least a year and following a review in the pre-pregnancy counselling clinic, before conceiving.

Pregnancy increases the workload of your kidneys. It is therefore important that your kidney transplant is functioning effectively to cope with these increased demands in order to minimise the risk of complications. It is also important that your blood pressure is well controlled, and you are taking medications that are safe in pregnancy.

Fertility can improve rapidly after transplantation. It is therefore important to use reliable contraception during the year following your transplant (see separate leaflet on contraception in kidney disease).

### Making any future pregnancy as safe as possible

Many medications are safe to use in pregnancy, but some could cause harm to the developing baby. It is important to stop any such medications before you become pregnant. Mycophenolate is one drug that is not safe and will need to be stopped **before** you become pregnant. You may be advised to change to azathioprine, and should take this for at least 3-6 months before trying to conceive. This is to ensure that your kidney function is not affected by the change in medication. We would need to check that your kidney function is stable on the azathioprine before conceiving.

Tacrolimus, cyclosporin and prednisolone are all safe medications to continue during your pregnancy. However, these medications can increase your risk of developing gestational diabetes (diabetes that develops during pregnancy). Their use, including drug levels, will be monitored throughout the pregnancy. If you are taking these medications or have other risk factors such as having a family member with diabetes or being overweight, we will offer you tests during pregnancy to see if you have developed gestational diabetes. If you have, you may require treatment with tablets or insulin if changing your diet does not control your sugar level adequately. If you are taking blood pressure medication, it is important that it is replaced with pregnancy-safe options such as labetalol, nifedipine or methyldopa.

**Please do not stop any medications without speaking with your doctor or midwife first.**

### Keeping your pregnancy healthy

#### Important supplements:

As for any woman planning a pregnancy, it is recommended that you take folic acid to reduce the chance of spina bifida or other neural tube problems in your baby. This should be taken for at least three months before conceiving. If you have had a kidney transplant you should take a higher dose of folic acid - 5mg daily. You should start taking this when you stop the mycophenolate and should continue to take it throughout the first three months of a pregnancy. It is also recommended that you take a vitamin D supplement.

Pre-eclampsia (see more information below) occurs more often in women with kidney disease. You will be offered a small dose of aspirin to take daily from 12 weeks of pregnancy to reduce the risk of getting pre-eclampsia.

#### Blood clots:

Pregnancy is associated with an increased risk of developing blood clots. Having high levels of protein in the urine (which can be associated with poor kidney function) increases this risk. You will be assessed throughout your pregnancy and may require blood-thinning injections to reduce the risk of blood clots. This may continue for up to six weeks after delivery, dependent upon risk factors.

#### Healthy diet:

It is important to eat a healthy and balanced diet throughout pregnancy. We recommend avoiding alcohol and caffeinated drinks. It is also important not to smoke as this can have a significant impact on your health and that of your baby. Maintaining a balance of gentle exercise and rest to avoid becoming fatigued is important.

#### Monitoring your pregnancy:

Once pregnant, you and your baby will be monitored closely. This will involve blood pressure monitoring, regular urine tests for proteins and infections, monitoring of medication levels to ensure you are taking the right doses of your medications, and monitoring of your baby's growth with scans. It is very important for you to attend all appointments to ensure that we can support the wellbeing of you and your baby. You can purchase a blood pressure monitor for home use – the British Irish Hypertension Society has a list of validated machines available online at <https://bihsoc.org/bp-monitors/for-home-use/> (QR code below).



Babies can have a slower growth rate in women that have had a kidney transplant or kidney disease. By having regular growth scans from 28 weeks of pregnancy, any problems with the growth of your baby should be detected. If it looks like your baby is growing more slowly, you may need more frequent or more detailed scans, or in some cases, an early birth of your baby. Depending on the circumstances and stage of pregnancy, this may be via a vaginal or Caesarean birth. If your baby is very small or needs to be delivered early, he or she may need to be cared for on the Neonatal Unit for a period following birth.

### Importance of Stopping Smoking

If you are currently a smoker, stopping would be much safer. The earlier you stop before trying for a baby, the better it is for your and your baby's health. There is excellent support to help you stop smoking. Your midwife or doctor can refer you to your local team who will discuss options and methods to help you quit.

### Kidney Transplant Associated Pregnancy Complications

**Pre-eclampsia** is a condition that can occur in the second half of pregnancy. It is caused by a problem with the placenta (the organ that links the baby's blood supply to the mother) and results in high blood pressure, protein in the urine and symptoms which can include headaches, visual disturbances, upper abdominal pain, high blood pressure, and fluid retention (oedema). In severe cases, pre-eclampsia can cause worsening kidney function, blood clotting problems, liver problems, and in extreme cases fits and risk of stroke. It is very important that we monitor your blood pressure and kidney function with blood and urine tests regularly throughout your pregnancy.

Pre-eclampsia can cause growth restriction in the baby. In addition to the above observations and treatments, your baby's growth will be monitored by ultrasound scans.

**Worsening kidney function:** Pregnancy increases your kidney's workload. It is possible that your kidney function may deteriorate during pregnancy. Depending upon your pre-pregnancy kidney function, it is likely that any deterioration of your kidney function will recover after you have given birth. However, if you experience severely reduced kidney function or have a severe illness or infection during your pregnancy, your kidney function may not improve. Very rarely, this may result in the need for treatment with dialysis.

**Anaemia:** Pregnancy can cause a low blood count. There is a higher chance of anaemia if you have had a kidney transplant. You may be offered iron tablets or injections if tablets are not effective. Some women need to take the hormone erythropoietin (EPO) to help improve anaemia.

### What happens during delivery?

We recommend that you plan to have your baby in hospital so we can support and monitor you closely. Many women with a kidney transplant have a vaginal birth. In kidney transplantation, in the absence of any other complications, we aim delivery at 38 weeks but for obstetric reasons, induction of labour or caesarean section is not infrequently required for your benefit or that of your baby. If a Caesarean section is required, it would be done through a different scar from your kidney transplant. Your doctors will discuss with you whether a vaginal birth or Caesarean section is preferable, taking your and your baby's wellbeing into consideration.

### Can I breastfeed if I have a kidney transplant?

Due to recognised benefits for your newborn baby, we encourage and support all women to breastfeed if they can. Breast milk contains important nutrients and antibodies for your baby's immune system, growth and development. Some medicines may be present in small amounts in breast milk, but are not shown to be harmful to your baby. Your doctors and midwives will be able to clarify if breastfeeding is not advisable with any of your medications.

### Where can I get more information?

This leaflet is a general guide only and does not consider all of your individual medical background. University Hospitals Birmingham NHS Foundation Trust runs a joint kidney-pregnancy clinic at Birmingham Heartlands Hospital and at Birmingham Women's Hospital. Your care before and throughout pregnancy will be provided jointly by renal and obstetric teams in the

## Information for Patients

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respective clinics. Your kidney doctor or nurse specialist can refer you for a more detailed consultation to aid your pregnancy considerations and to optimise yours and your baby's safety.

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email [patientexperience@uhb.nhs.uk](mailto:patientexperience@uhb.nhs.uk).