

What I tell my patients about sex and renal failure

Sexual problems are common for men and women who suffer from kidney disease. Not only are emotional problems likely to occur as a result of the stress of the disease, but there are also a number of medical conditions that can affect sexual function and fertility, both in men and women. Research has shown that people of all ages may have sexual problems, but these become more frequent in middle-aged people with kidney diseases.

Can sexual difficulty be caused by emotional problems?

Many people suffer with some sort of emotional problems during their lifetime, leading to sexual difficulties. The stability of a relationship before the onset of renal failure can play a significant part in dealing with sexual difficulties. Some common emotional problems are caused by people going through a grieving process due to loss of renal function, which may affect their independence, their job and their place in the family. Some patients experience a change in body image, or do not feel a 'whole man' or 'whole woman' due to decreased sexual function. Dialysis can lead to lowered self-esteem, coupled with anger and depression, which also affects sexual function.

Partners can feel powerless in a relationship because they do not know what to do to help the person with kidney failure and they may provoke a negative reaction when trying to help. The equal balance of the relationship may have changed – one seeing themselves as the carer and the other in a sick role. People need to talk about their fears and feelings.

You and your partner may want to have counselling. This can be very effective, although it may be necessary to ask both the renal unit and your GP to get an appropriate referral.

How are sexual problems explored?

In the past, many healthcare professionals working with kidney patients tended to avoid getting involved with their patients' sexual problems. A possible reason may be a mistaken belief that the available treatments are unlikely to work. This view needs to be updated.

Treatment is usually successful – provided that both partners are keen to have a sex life and are



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willing to accept help. It may be possible to adjust medication, increase dialysis, improve haemoglobin or treat erectile problems.

What contraception can I use?

Contraception is important for people with kidney disease, as it is for everyone else. Do not assume that because you have kidney failure, you cannot have a child. There are over ten different methods of contraception available, most of which are suitable for people with kidney disease.

Barrier methods of contraception (such as condoms) are effective, as long as they are used carefully. A diaphragm or spermicidal jelly can also be used.

Failure of a barrier method may occur when the device becomes dislodged, during or after, intercourse. Kidney patients are able to take the 'morning-after pill'; however, this treatment can cause sickness and should not be used regularly.

Women can use an intrauterine coil; this is a small plastic and metal device that is inserted into the womb. It requires someone experienced to insert and remove it. With the coil, contraception is generally effective, although it may cause some bleeding or heavier periods and there is a small risk of infection in the womb.

There is a new type of coil available, marketed in the UK under the name Mirena® (Schering

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Health, UK), which combines some hormonal treatment with the coil effect.

The oral contraceptive pill (often just called 'the Pill') can be used in women with kidney diseases, but a low-oestrogen type is generally preferred. High blood pressure is very common in women with kidney diseases and this is a common side-effect of oral contraceptives.

Vasectomy and sterilisation procedures can be carried out in patients with kidney failure in the same way as anyone else. Before contemplating sterilisation, it is important to realise that the success of reversal by surgery is limited. Lastly, sterilisation does not protect against sexually transmitted infections (STIs), so safer sex with barrier methods should be practised if you are having sex with more than one partner.

Am I more susceptible to STIs?

STIs can occur in people with kidney failure just as they can in anyone else. Symptoms may include genital itching or a discharge from the penis or vagina. Some diseases, such as HIV/AIDS and viral hepatitis, may cause specific problems in a person with kidney failure. In particular, it is currently not possible to have a kidney transplant if you are HIV-positive. For more information, we suggest you go to the website: www.lovelife.uk.com

Women with renal failure

Can dialysis patients have sex?

Women with kidney failure can have intercourse. Some people worry that the catheter (tube) for peritoneal dialysis, which hangs from the abdomen, will prevent them from having sex. Others worry that a kidney transplant, which is placed low down in the abdomen, might also be a problem. Neither of these should prevent anyone from having sex.

Research in Coventry has shown that people on peritoneal dialysis and haemodialysis both reported similar sexual function (scoring 40/100 on a questionnaire). People with functioning kidney transplants did better, scoring 59/100. These scores may not sound high, but the general population does not score anywhere near 100.

What can I do if my sex drive is low?

Although loss of sex drive can be an emotional problem, women should not think that this is always the case. Problems such as anaemia and hormone deficiency can also cause lowered sex drive, and these are treatable.

As yet, there has been very little research carried out into the sexual difficulties of female dialysis patients. The largest study was a survey of 99 Italian female haemodialysis patients. Compared with healthy women, the dialysis patients had sex less often and were less able to have an orgasm. In addition, most patients noticed a loss of sex drive.

Sexual function frequently returns to normal after a successful kidney transplant.

Can kidney failure patients fall pregnant?

There is a reduced success rate for pregnancy if a woman has advanced kidney failure or is on dialysis. There are so many kidney diseases that it is not possible to predict every possibility, so a woman wanting information should ask her own specialist. However, there are some generalisations that can be made.

- **Minor kidney disease.** Minor kidney disease usually does not affect pregnancy at all. If a woman has normal kidney function and normal blood pressure with little or no protein in the urine, a pregnancy may proceed perfectly normally. An exception is in some women with a condition called lupus.
- **High blood pressure, normal kidney function.** If a woman has high blood pressure, it is likely to get worse during pregnancy. A woman with high blood pressure before pregnancy is likely to deliver prematurely, due to a rise in blood pressure in late pregnancy.
- **Reduced kidney function.** If a woman has reduced kidney function, the risks of pregnancy and the chances of a successful outcome are reduced. If the reduction in kidney function is not major, pregnancy is usually successful. However, once kidney function is down to a quarter or less of normal (with a blood creatinine level of about 300 $\mu\text{mol/l}$), there are likely to be more problems with high blood pressure and premature delivery. In addition, the kidney function in the mother may get worse during, or just after the pregnancy. In extreme cases, dialysis may need to be started.

The timing of pregnancy may need some planning for a woman with progressive kidney disease. It may be best to have a child while kidney function is quite good. Waiting until kidney failure is advanced increases the risks and some women decide to delay pregnancy until after they have received a kidney transplant, because of the risks to their own kidney function and because pregnancy on dialysis has a low success rate. It is best to discuss your particular case with your consultant.

Can dialysis patients fall pregnant?

Women of childbearing age do not often get pregnant while on dialysis. This is because dialysis only replaces a small percentage of kidney function, so the body still has high levels of waste products, which interfere with egg production and the menstrual cycle. Once a woman becomes pregnant, high blood pressure almost always causes problems, leading to premature delivery.

It is usually recommended that a woman on dialysis who is pregnant, should have an increased



dialysis dose, be monitored carefully for high blood pressure and have a good haemoglobin level, maintained with erythropoietin.

Women who want to have children should consider whether it would be better to use contraception while on dialysis and plan to have children after a kidney transplant. The likelihood of a successful pregnancy rises from 50% on dialysis to over 70%. Some women also feel that they would be better able to care for a child after having a kidney transplant.

Can I fall pregnant after transplantation?

Women can successfully have children if they have a functioning transplant, although there are some risks. Women are usually advised not to get pregnant in the first year after a kidney transplant. The drugs used to stop rejection of the kidney transplant still need to be taken during pregnancy.

Although transplant recipients may take several types of medication, their newborns do not have excessive rates of abnormalities. However, the spontaneous miscarriage rate in early pregnancy may be higher than in the general population.

Could my baby have inherited kidney disease?

Some types of kidney disease run in families and the chances of a child inheriting the condition can be calculated. Examples are polycystic kidney disease and Alport's syndrome. Most kidney diseases do not generally run in families but, as they do occasionally appear to be inherited, it may be wise to perform checks on family members.

Men with renal failure

Could I be impotent?

Men with kidney failure have a variety of sexual problems. These include having sex less often, loss of interest in sex (loss of libido), and being unable to ejaculate. However, the most common sexual problem – and usually the most worrying for the man – is difficulty in getting, or keeping, an erection. This is usually called impotence.

If a man with kidney failure develops impotence, the first sign is usually being less able to keep an erection for as long as usual, although he is still able to ejaculate. Eventually, he may lose the ability to get an erection at all. This can obviously lead to frustration, particularly if the sex drive is unchanged. The situation can be even more upsetting if the man's partner interprets the problem as a loss of interest in her personally.

What causes impotence?

Impotence has many possible causes. In most men with kidney failure, sexual problems do not have just one cause, but are usually due to a combination of factors.

- **Poor blood supply.** In order to make the penis hard, extra blood enters it and is then prevented

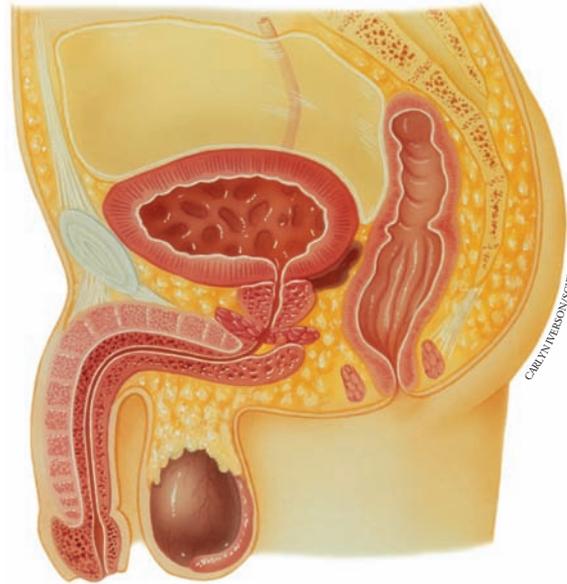


Figure 1. The male reproductive system. The muscle tissue in the penis (light pink) fills with blood to hold it erect

from leaving it (Figure 1). Many kidney patients have narrowed blood vessels all over their body, including those vessels that supply the penis. It is not just kidney patients who have this problem. It also occurs as part of the natural aging process and is common in older men, as well as in men with diabetes.

- **Leaky blood vessels.** To keep the penis hard, the extra blood that has entered it must stay inside it. In men with kidney failure, the extra blood sometimes leaks back out of the penis, and so the erection is lost.
- **Hormonal disturbances.** Hormones are chemical messengers that control many body functions. They are carried around the body in the blood. Some hormones are specifically designed to control sexual urges. The levels of these sex hormones can be either higher or lower than normal in people with kidney failure. In particular, the testicles may produce less of the male sex hormone, testosterone.
- **Nerve damage.** The nerves that supply the penis are also involved in getting an erection. In patients with kidney failure, nerve damage may prevent the nerves from working properly.
- **Tablets.** Most tablets do not cause impotence on their own. However, a few drugs can contribute to sexual problems. The biggest culprits are beta-blockers, such as atenolol, propranolol, metoprolol and bisoprolol.
- **Tiredness.** Tiredness can affect sexual performance. Tiredness in kidney patients may be caused by anaemia, under-dialysis or other medical problems, such as heart problems.
- **Psychological** or relationship problems.

How is impotence investigated?

The first and most important step is for the subject to be raised. There is often a lot of unnecessary



suffering due to either denial of the problem or fear of embarrassment. Once the problem of impotence has been recognised, the following should take place.

- A general health check and a physical examination. This will include an examination of the genitals. The doctor will also feel for a pulse at various points in the legs. If the pulses are weak, this means that the blood vessels in the legs have narrowed and other blood vessels that supply the penis may also be narrowed, reducing the blood supply.
- Blood tests, including tests to measure the levels of various hormones.
- Some types of tablets may contribute to a patient's sexual difficulties. Alternative medication is sometimes available.
- Psychosexual problems should be investigated. The patient should be asked to consider whether psychological or relationship difficulties may be contributing to the physical problem of impotence.

How is impotence treated?

The doctor will begin by looking at any more general problems that may be contributing to a patient's impotence. These may include treating anaemia, increasing the amount of dialysis or changing the patient's tablets.

More specific physical treatments for impotence will then be considered, such as medication (for example, Viagra® [Pfizer, UK]); hormone injections; use of a vacuum device; penile injection therapy; penile insertion therapy (transurethral therapy); or penile implants. In addition to the various physical treatment options, patients may be recommended to seek help for emotional problems relating to impotence.

How is hormone deficiency treated?

Most male dialysis patients with sexual problems have low testosterone levels. This deficiency can be treated by an injection of testosterone every three to four weeks. Although testosterone injections replace the hormone that is lacking, they are not always effective in treating impotence.

Key points

- **Sexual problems are common in renal patients, especially in middle-aged people with kidney failure.**
- **Ask for help – if not from your consultant, then from other renal staff; someone in the renal unit will be able to give good advice.**
- **Pregnancy is possible, but is most likely to be successful after transplantation.**

Can I use Viagra (sildenafil)?

Viagra is a tablet treatment for impotence, which has been widely reported in the media since its US launch in April 1998. Viagra acts by enhancing the action of a compound called nitric oxide, which opens wide the blood vessels of the penis, leading to an erection.

Trials of Viagra have shown that about eight out of 10 men benefit, with improvements in erectile performance, orgasmic function and intercourse satisfaction. However, it is notable that desire itself may not be improved.

The reported side-effects were occasional headaches, indigestion and muscle aches. Patients with angina or other heart problems should not take Viagra.

If you think you may benefit from Viagra, speak to one of the doctors on your renal unit. Although the drug will be prescribed by your GP (and is free on the NHS for kidney failure patients), most GPs will ask the specialist unit if the treatment is safe in your case.

Can I father children?

Yes, but men with kidney disease may have a reduced sperm count and may experience difficulty fathering a child. A man's ejaculate contains millions of sperm, each one looking like a microscopic tadpole. The sperm move around, and one needs to reach an egg in the woman for conception (fertilisation of the egg) to occur. Sperm can be examined under a microscope, and the quality of the sperm can be measured by the number of the sperm (the 'sperm count'), their ability to move, and the number of sperm with abnormal shapes.

Kidney disease that is not severe enough to lead to kidney failure or to need dialysis probably does not affect a man's sperm count. Studies looking at the sperm of men receiving dialysis treatment show that many of them have reduced sperm counts and the sperm that are present are underactive. This seems to be due to failure of the sperm to develop in the testicle. Sometimes there is associated testosterone deficiency, but it is not clear from research whether testosterone treatment restores the number and function of sperm in men with kidney failure.

After successful kidney transplantation, sperm numbers generally rise and there are reports of men who were infertile while on dialysis fathering children after transplantation ■

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