Sexual dysfunction after radiotherapy/additional hormone therapies for prostate cancer

This leaflet explains about sexual dysfunction after radiotherapy/additional hormone therapies (ADT) for prostate cancer. If you have any further questions or concerns, please speak to a doctor or nurse caring for you.

After radiotherapy or brachytherapy, you will develop changes to your sexual function. While you may not have issues straight away, changes may develop during the first two to three years after treatment. Those taking additional hormone therapies (ADT) will notice a greater change in their sexual function, although these changes normally reverse once this treatment is stopped.

If you have any questions regarding the impact of radiotherapy or hormones on your sexual function, or you have developed any changes and would like to discuss how they can be improved, please ask your key worker to refer you to your local urology, andrology or ED service.

Erectile dysfunction
Not all patients will develop erectile dysfunction (ED) after radiotherapy straight away. While surgery causes immediate ED, which can recover with time if the nerves are spared, ED due to radiotherapy may develop and progress in the first two to three years after treatment. Your risk of ED is dependent on the type of radiotherapy you had (for example, more ED is reported with external beam radiotherapy than brachytherapy), how good your erections were pre-treatment, and other medical problems you may have (like diabetes and heart disease).

Your local team may start you on a combination of tablets and a vacuum pump if you develop difficulties with your erections. The sooner you start these treatments the better your outcome will be. If you don’t respond to these initial treatments, you can still achieve assisted erections using different strategies. These can range from injections to devices to help regain sexual function.

Ask to see your local urologist, andrologist or ED service who can talk you through the different options.

Change to penis size and shape
Your penis may become shorter if you develop ED. Reduced erectile function can result in fibrosis (reduced stretchability) in the penis due to loss of your nocturnal (subconscious) erections. Early and regular use of treatments for ED will help to limit and prevent this. There may also be a risk of developing a build-up of scar tissue in your penis, called a Peyronie’s plaque. This can lead to a permanent change in the shape/curvature of the penis. If you develop this, see your local urologist/andrologist who can advise you on how to manage this further.
Loss of ejaculation and reduced fertility
After radiotherapy you may note a reduction in the amount of semen you produce when you ejaculate. In some cases it may disappear altogether. Your ability to enjoy sex and have the ‘sense of release’ (orgasm) usually remains the same, although some describe a reduced desire for sex and reduced intensity of orgasm. Some patients may also develop pain with ejaculation/orgasm after radiotherapy.

Your fertility may be reduced after radiotherapy. If you have concerns about preserving your fertility, see your local andrologist/urologist who can advise you further.

Effect of hormone therapy
Some patients may require additional hormonal therapy with radiotherapy (androgen deprivation therapy, or ADT). This can lead to a marked loss of libido (desire for sex), a greater degree of ED, a reduced sensation during orgasm, and further impairment to ejaculation and fertility. These normally reverse some months after the ADT is stopped. Your local urologist, andrologist or ED service can advise you on different strategies that can be used to improve sexual function while on ADT.

Contact us
If you have any questions or concerns about your prostate cancer please contact your prostate CNS on t: 020 7188 7339 (Monday to Friday, 9am to 5pm).

Guy’s and St Thomas’ hospitals offer a range of cancer-related information leaflets for patients and carers, available at w: www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit w: www.guysandstthomas.nhs.uk/leaflets

Dimbleby Cancer Care provides cancer support services for Guy’s and St Thomas’. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy’s, t: 020 7188 5918 e: DimblebyCancerCare@gstt.nhs.uk

Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the clinical nurse specialist or other member of staff caring for you or call our helpline.
t: 020 7188 8748, Monday to Friday, 9am-5pm