RETROPERITONEAL EXCISION OF ABDOMINAL LYMPH NODES (RPLND)

Information about your procedure from
The British Association of Urological Surgeons (BAUS)

This leaflet contains evidence-based information about your proposed urological procedure. We have consulted specialist surgeons during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.

To view the online version of this leaflet, type the text below into your web browser:
http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/RPLND.pdf

Key Points

- RPLND is a major procedure to remove enlarged lymph nodes from the back of your abdomen (tummy)
- It is usually performed to remove lymph nodes which have not shrunk after a course of chemotherapy for testicular cancer
- It involves complex, major, abdominal surgery to access the lymph nodes and strip them off your major blood vessels (inferior vena cava & aorta)
- The procedure carries the risk of infertility and ejaculation problems in young men
- When the pathology tests on the removed lymph nodes have been reviewed, some patients are found not to have residual cancer whilst others do, and may require further treatment

What does this procedure involve?

Removal of the lymph nodes from your retroperitoneum (the back of your abdominal cavity behind the intestines) where the main blood vessels (aorta and inferior vena cava) run. Lymph nodes are small glands, close to the blood vessels, that trap cancer cells and may become enlarged as a result.

We do this procedure for some testicular cancer patients who have completed and recovered from chemotherapy. If lymph nodes do not shrink to a normal size (less than 1 cm diameter) after chemotherapy, there may be cells within them that could become cancerous in the future. The

only way to be sure of this is to remove all the lymph nodes and examine them under a microscope.

What are the alternatives?

- **Observation** – this is the only alternative to surgery, and is not recommended because it may leave potential cancerous cells to grow again at a later date.

Will the procedure affect my ability to father children?

Your urologist or oncologist should already have explained that the nerves which control ejaculation run through the middle of the surgical field. We always try to preserve these nerves, but there can be a lot of scar tissue around the nerves after chemotherapy treatment. Cutting the nerves may result in weak or absent ejaculation after the operation.

The surgery can also cause **retrograde ejaculation**, where semen goes backwards into your bladder instead of coming out through your penis (a dry orgasm). This is not harmful, and the semen flushes out of your bladder the next time you pass urine. It does not always happen, and your urologist may be able to tell you if it is likely in your case. If you do get retrograde ejaculation, it is almost certain that you will be sterile.

Many patients will already have stored semen before starting their chemotherapy. If you have not already done so, we can arrange for you to store semen as a precaution. You should discuss this with your urologist before the procedure.

Erections, and the sensation of orgasm, are not usually affected by procedure.

What happens on the day of the procedure?

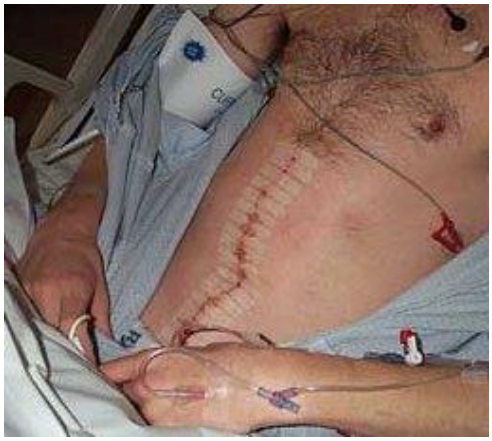
Your urologist (or a member of their team) will briefly review your history and medications, and will discuss the surgery again with you to confirm your consent.

An anaesthetist will see you to discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you, such as a patient-controlled analgesia (PCA) system or an epidural catheter.

We may give you a pair of TED stockings to wear, and a heparin injection to thin your blood. These help to prevent blood clots from developing and from passing into your lungs. Your medical team will decide whether you need to continue these after you go home.

Details of the procedure

- we carry out the procedure under a general anaesthetic
- we usually give you an injection of antibiotics before the procedure, after you have been checked for any allergies
- we make a long incision in your abdomen (pictured) which allows us to move your intestines to one side to access the retroperitoneal lymph nodes



- we use "templates" to be sure that we remove all the lymph nodes from your major blood vessels
- we put a bladder catheter in your urethra (waterpipe) to monitor your urine output and remove it once you are mobile
- you can drink water from the day after the procedure but we usually pass a stomach tube through your nose (a nasogastric tube) to stop you from becoming bloated with air and fluid; we remove this after a few days, following which you should be able to eat and drink freely
- we close the wound with staples, clips or stitches which are normally removed after seven to 10 days
- the operation can take from three to six hours, depending on its complexity
- we may monitor your condition in a high-dependency unit (HDU) for the first few hours (or days) after the procedure
- you should expect to be in hospital approximately seven days

Are there any after-effects?

The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. We have not listed very rare after-effects (occurring in less than 1 in 250 patients) individually. The impact of these after-effects can vary a lot from patient to patient; you should ask your surgeon's advice about the risks and their impact on you as an individual:

After-effect	Risk
The overall risk of after-effects in patients undergoing RPLND is about 1 in 10 (10%)	
Problems with weak or absent ejaculation after the surgery	 Between 1 in 2 & 1 in 10 patients
Accumulation of lymph fluid requiring needle drainage or further surgery	 Between 1 in 2 & 1 in 10 patients
Infection, pain or bulging of the incision requiring further treatment	 Between 1 in 2 & 1 in 10 patients
Temporary problems with delayed bowel function requiring prolonged nasogastric (stomach) tube insertion	 Between 1 in 2 & 1 in 10 patients
Need for removal of additional organs on the affected side (usually a kidney, damaged by blockage from the lymph nodes)	 Up to 1 in 10 patients (10%)
Bleeding requiring transfusion or further surgery	 Between 1 in 10 & 1 in 50 patients
Need for further treatment if we find any residual cancer in the lymph nodes	 Between 1 in 10 & 1 in 50 patients
Injury to nearby local structures (blood vessels, spleen, liver, lung, pancreas & bowel) requiring more extensive surgery	 Between 1 in 10 & 1 in 50 patients
Entry into your lung cavity requiring insertion of a temporary drainage tube	 Between 1 in 50 & 1 in 250 patients

Anaesthetic or cardiovascular problems possibly requiring intensive care (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack)		Between 1 in 50 & 1 in 250 patients (your anaesthetist can estimate your individual risk)
Peri-operative death		Between 1 in 100 & 1 in 200 patients (0.5 to 1%)

What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is approximately 8 in 100 (8%); this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This figure is higher if you are in a "high-risk" group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- bladder removal;
- long hospital stays; or
- multiple hospital admissions.

What can I expect when I get home?

- you will get some swelling and bruising around the wound which may last several days
- we will give you advice about your recovery at home
- we will give you a copy of your discharge summary and a copy will also be sent to your GP
- any antibiotics or other tablets you may need will be arranged & dispensed from the hospital pharmacy
- we will arrange a follow-up appointment for you to have your dressings and your stitches/clips/staples (if still present) removed if they are still in place when you go home
- if you develop any reddening around your wound, discharge from it or swelling of your abdomen, you should contact your doctor immediately
- you should report any abdominal distension (bloating) or persistent vomiting immediately; it may be a sign of intestinal (bowel) blockage
- you should report any other post-operative problems to your GP, especially if they involve chest symptoms

- you should rest during the early days but you should take regular, gentle exercise; gradually build up your exercise levels as your energy returns
- you may not feel fully recovered for six to 12 weeks
- it usually take 14 days for the biopsy results on your removed lymph nodes are available; we will discuss them in a multi-disciplinary team (MDT) meeting before we make any further treatment decisions
- we will let both you and your GP know the results, and will arrange a follow-up appointment for you
- your oncologist (or testicular cancer nurse) may also wish to see you during the recovery period

General information about surgical procedures

Before your procedure

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft);
- a regular prescription for a blood thinning agent (warfarin, aspirin, clopidogrel, rivaroxaban or dabigatran);
- a present or previous MRSA infection; or
- a high risk of variant-CJD (e.g. if you have had a corneal transplant, a neurosurgical dural transplant or human growth hormone treatment).

Questions you may wish to ask

If you wish to learn more about what will happen, you can find a list of suggested questions called "Having An Operation" on the website of the Royal College of Surgeons of England. You may also wish to ask your surgeon for his/her personal results and experience with this procedure.

Before you go home

We will tell you how the procedure went and you should:

- make sure you understand what has been done;
- ask the surgeon if everything went as planned;
- let the staff know if you have any discomfort;
- ask what you can (and cannot) do at home;
- make sure you know what happens next; and
- ask when you can return to normal activities

We will give you advice about what to look out for when you get home. Your surgeon or nurse will also give you details of who to contact, and how to contact them, in the event of problems.

Smoking and surgery

Ideally, we would prefer you to stop smoking before any procedure. Smoking can worsen some urological conditions and makes complications more likely after surgery. For advice on stopping, you can:

- contact your GP;
- access your local NHS Smoking Help Online; or
- ring the free NHS Smoking Helpline on **0800 169 0 169**

Driving after surgery

It is your responsibility to make sure you are fit to drive after any surgical procedure. You only need to contact the DVLA if your ability to drive is likely to be affected for more than three months. If it is, you should check with your insurance company before driving again. Following retroperitoneal lymph node surgery, most patients should be fit to drive after three to four weeks.

What should I do with this information?

Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you would like to have a copy for your own records. If you wish, they can also arrange to file a copy in your hospital notes.

What sources have we used to prepare this leaflet?

This leaflet uses information from consensus panels and other evidence-based sources including:

- the Department of Health (England);
- the Cochrane Collaboration; and
- the National Institute for Health and Care Excellence (NICE)

It also follows style guidelines from:

- the Royal National Institute for Blind People (RNIB);
- the Information Standard;
- the Patient Information Forum; and
- the Plain English Campaign.

Disclaimer

We have made every effort to give accurate information but there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

PLEASE NOTE

The staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you do have any questions, you should contact your urologist, specialist nurse or GP.