Adrenalectomy
Patient information leaflet

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What is an adrenalectomy?

An adrenalectomy (ad-renal-ect-omy) is an operation to remove one or both of the adrenal glands. The adrenal glands sit above the kidneys.

The main role of the adrenal glands is to release hormones into the body. The main hormones released are stress related hormones (cortisol, noradrenaline and adrenaline), hormones that regulate metabolism, hormones that affect immune system function, androgens (sex hormones) and hormones for saltwater balance (aldosterone).
An adrenalectomy can be done:
- ‘Open’ with one large surgical cut below the ribcage
- Or ‘laparoscopic’ which involves four smaller cuts being made allowing the inside of the abdomen to be seen using a camera

Some laparoscopic operations may have be converted to ‘open’ at the time of the surgery due to the surgeon not being able to see the inside of the abdomen clearly enough (about 5% of cases).

The surgery is performed under general anaesthetic so you will be asleep and will not feel any pain. The surgery normally takes 1–2 hours.

The adrenal gland(s) will be sent to a pathologist after it is removed for further tests in a laboratory using a microscope.

**Why is an adrenalectomy performed?**

The adrenal gland(s) need to be removed if there is a mass/tumour in the gland(s).

An adrenalectomy is performed if:
1. The tumour is found to make excess hormones
2. Is large in size (more than 4–5cm)
3. If the tumour could be malignant (cancerous)

A phaeochromocytoma is a tumour that releases too much stress hormone (adrenaline and noradrenaline). This can cause very high blood pressure.

Cushing syndrome (high levels of cortisol hormone) and Conn syndrome (high levels of aldosterone hormone) are other complications due to masses in the adrenal glands and are reasons to perform an adrenalectomy.

Sometimes an adrenalectomy will be performed if the hormones produced by the adrenal gland are making another condition worse e.g. breast cancer.
Who is not suitable for a laparoscopic adrenalectomy?

Any patient with:
1. Uncontrolled bleeding diseases
2. Severe cardiac disease
3. Presence of a locally advanced tumour in the adrenal gland
4. A medically untreated phaeochromocytoma

What are the risks of the procedure?

Any operation involves some risk of:
- Blood clots in the legs (which can travel to the lungs)
- Lung problems
- Damage to other nearby organs (spleen and pancreas)
- Heart attack or stroke
- Infection (5% of cases)
- Bleeding
- Pain
- Allergic reaction
- Loss of bowel function
- Incomplete wound healing and
- Scarring

The mortality rate of a laparoscopic adrenalectomy is about 0.3%, compared to an open adrenalectomy which has a mortality rate of 0.9%.

What will happen before the procedure?

A CT or MRI scan may be ordered by your doctor before the surgery, in order to see exactly where the adrenal gland mass is located.

It is important to inform the doctor if you could be pregnant and what drugs you are currently taking.
You may need to stop taking certain drugs a few days before the surgery. These include;

- Aspirin
- Ibuprofen
- Naproxen
- Clopidogrel
- Warfarin

You should also avoid smoking as this will help you to recover more quickly after the surgery.

The day before the surgery, you may be given an enema which will clear your bowels.

On the day of the surgery, the doctor or nurse will have informed you about what you can eat/drink the night before and the morning of the surgery.

**What is the recovery like after surgery?**

After any operation there will be some discomfort but your pain should be well controlled with analgesia. You may experience some constipation following the surgery and this will be eased by stool softener medication.

Your surgeon will also give you information regarding how much activity you should be partaking in after the surgery.

If you have a ‘laparoscopic’ procedure then you will have a shorter hospital stay and may experience less pain as well as having a shorter overall recovery compared to an ‘open’ procedure. The average hospital stay following a laparoscopic adrenalectomy is three days.

Your hormone balance will be a major concern for the doctors after your surgery. You may require specific lab tests to check your hormone levels. Also blood pressure problems and infection are more likely following an adrenalectomy, so your doctor will monitor you very closely following the operation.
Complete recovery after an adrenalectomy will take several weeks. However, this could be longer depending on how your surgery went and whether or not you experience any complications following surgery.

If both adrenal glands are removed then you will need to be on life-long steroid treatment (cortisone and hydrocortisone)

**What will the result be after surgery?**

Once an adrenalectomy has been performed any hormone imbalance should be corrected and if the tumour was cancerous, then the cancer can be stopped before it invades into any other part of the body.

**What is the long term monitoring following an adrenalectomy?**

This depends on the reasons for the surgery and the post-operative diagnosis. Patients are usually followed up by an endocrinologist annually. If the adrenalectomy was performed due to a cancerous mass, then you may also be followed up by an oncologist.

**What is the alternative to an adrenalectomy?**

In some cases, medical therapy (drugs) may be considered when the condition involved is non-cancerous.
Please use the space below to write down any questions you may have and bring this with you to your next appointment.
The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk/health-talks.htm or call 0121 371 4957.