

What you should know about your appendicectomy

Other formats

If you need this information in another format such as audio tape or computer disk, Braille, large print, high contrast, British Sign Language or translated into another language, please telephone the PALS desk on 01271 314090.

What is an appendicectomy?

An appendicectomy is a common and safe operation that is performed to remove your appendix, which is a closed ended narrow tube that extends out from your large bowel. Although the exact function of the appendix in the human body is unclear¹, we know that its removal does not cause any problems.

Why is it needed?

Having an appendicectomy is the more common way of treating appendicitis, a condition which 6 out of 100 people will suffer from in their life time. We do not yet fully understand what causes appendicitis, but think that it starts by material in the bowel blocking the entrance to the appendix. This leads to bacteria (germs) growing inside and infecting the appendix, causing inflammation and swelling².

The danger of not treating appendicitis is that it can make you very unwell and the appendix can swell up so much that it bursts (perforates), releasing bacteria into the abdomen. This can lead to a condition called peritonitis which may be life threatening.

What is involved in removing an appendix?

An appendicectomy can be carried out with either key-hole (laparoscopic) or open surgery. If you are having key-hole surgery, the surgeon will begin by making a small cut below your umbilicus (belly button) which is used to pump gas into your abdomen to create space needed for the operation.

A long, thin camera with a light on the end, known as a laparoscope, is then placed into your abdomen which is connected to a monitor, allowing the surgeon to see your appendix. Two further small cuts are then made in the abdomen through which are inserted special instruments that are needed to remove your appendix.⁴

The surgeon may decide to switch to open surgery if continuing with key-hole surgery is too difficult because of scar tissue or if your appendix has perforated.

If you are having open surgery, the appendix will be removed through a 2 to 3 inch cut made in the lower right region of your abdomen.

An appendicectomy usually takes between 60 to 80 minutes⁵ and you should normally be fit to go home the same or following day.

Is there an alternative treatment?

In certain circumstances, the alternative treatment to removing the appendix is to have a course of antibiotics. There is evidence that this can sufficiently treat simple appendicitis (where there is no abscess or perforation) and 2/3 of people just treated with antibiotics will recover fully. The other 1/3 fail medical treatment and end up needing surgery – some during this episode and some later in life. There may also be a higher chance of having peritonitis if you get appendicitis a second time. This evidence is still quite new, so some surgeons will still recommend surgery as the first-line treatment and reserve antibiotic treatment for cases when there is a reason to avoid surgery – for example in people with other medical problems or who do not want surgery. You may be asked if you have a preference of how you are treated. There is no right or wrong answer and your management plan may change during your admission.

How will I feel afterwards?

After-effects of the anaesthestic

It is normal to feel sleepy for the first few hours after your operation as the effects of your anaesthetic wear off and you may also notice problems with your memory and concentration which can last up to one day.⁴

We would advise you not to make important decisions or sign legal documents for at least 24 hours after having your anaesthetic.

The tube that was used to help you breathe during the surgery can irritate the back of the throat which might cause a sore throat after the operation.

Post-operative pain

It is normal for your wounds(s) to feel sore and look swollen and bruised after the operation. You may also experience shoulder pain which is caused by the carbon dioxide that was used to inflate your abdomen during your operation.

Regular pain killers shall be provided to make sure that you are kept as pain-free as possible. You should start to notice a reduction in the pain you feel within two to three days.

Post-operative nausea and vomiting

Feeling nauseous and sickness are very common symptoms after surgery. If this happens to you, anti-sickness medications are available to help prevent you from feeling sick and a drip may be started if you are unable to drink enough fluids.

What happens after the procedure?

We will monitor your vital signs such as your heart rate and temperature and your wounds will be regularly checked for any signs of infection.

You can start to eat and drink as soon as you feel comfortable to do so. You will be encouraged to get up from bed and sit in your beside chair after the first few hours and to walk around. This activity helps you to recover more quickly.

Sometimes, a plastic tube will be placed inside your abdomen towards the end of the operation to drain away blood and pus that accumulates after surgery. This usually gets removed once we are happy it is draining only small amounts.

You will be fit to go home once you feel well enough and are clinically improving. This is usually the same or next day.

What are the risks?

Although an appendicectomy is a safe operation, it does carry the following risks:5

- 1) Bleeding during and after the operation
- 2) 6 to 7 out of 100 patients will have a wound infection
- 3) 3 to 5 out of 100 patients will develop an abscess (collection of pus) in the abdomen resulting in increasing pain and fever. You may be taken back to theatre to have the pus removed if this occurs.
- 4) 9 out of 100 patients will get an ileus, a condition where the bowel temporarily shuts down leading to bloating, pain and vomiting. This usually resolves by itself but you may require a nasogastric tube, a tube inserted through your nose into your stomach for a period of time until your bowel starts working.

It is important to mention that for most people, these risks are lower than the risk of not having an appendicectomy, which includes perforation of the appendix leading to peritonitis, a life-threatening condition.^{3,10}

Aftercare

Medications to take home

We will ensure that you are discharged home with enough painkillers to help you to cope with your pain at home.

Caring for your wounds

You should expect your wounds to be red and sore for one to two weeks after surgery but this will gradually improve over time. You may also notice some numbness around the wound which is due to damage to the small nerves in the skin. This may resolve with time but can be permanent. A supply of dressings will be provided for you to take home but by the fifth day you should find that dressings are no longer required. Showering is better than taking baths to prevent the wounds becoming soggy. If you do not have a shower, a shallow bath should be taken. Once you have washed yourself, pat your wound dry with a clean towel. If your stitches require removal, you will be given an appointment with your practice nurse.

Resuming daily activities and sports

You can resume normal activities, including doing sport as soon as you feel comfortable, but it is sensible to build up the level gradually.

We recommended you avoid strenuous exercise including contact sports and heavy lifting for one month. Sexual activity may resume as soon as you feel comfortable to do so, usually within a week or two.⁴

Swimming should be avoided for two weeks or until your wound has fully healed.

Driving

It is essential that you are fit enough to perform an emergency stop before you start to drive again after your operation, otherwise, you will be putting yourself and others at risk and could invalidate your insurance. We recommend that you wait one to two weeks before driving. Nevertheless, you should also contact your insurance provider to clarify what they require.⁴

Returning to work and school

The amount of time off work or school you need to take will depend on the type of surgery and your occupation. After key-hole surgery you may return to light work after just one week but will require two weeks if you have an active job that involves a lot of lifting and manual work.⁴

After open surgery, it is advisable to have three to four weeks off work. The doctors on the ward can give you a sick note to cover the time you are in hospital and for two more weeks. You will need to get further sick notes from your GP.

Children are advised to take two weeks off school.

Follow up

You will receive information before you leave hospital if we would like you to be followed up as an outpatient.

Please contact your GP or your consultant's secretary at North Devon District Hospital (01271 322577) if you experience any of the following at home:

- o Increasing redness, pain or swelling around your wound
- Persistent discharge of blood or pus from the wound
- Persistent vomiting or fevers.

References

- Society of American Gastrointestinal and Endoscopic Surgeons. Patient Information for Laparoscopic Appendectomy from SAGES. http://www.sages.org/publications/patient-information/patient-information-forlaparoscopic-appendectomy-from-sages/. (Date accessed 16/10/2014).
- Shuhatovich & colleagues. Laparoscopic Appendectomy. http://emedicine.medscape.com/article/1582228-overview#a01. (Date accessed 14/09/2014)

- Papandria D, Goldstein SD, Rhee D, Salazar JH, Arlikar J, Gorgy A, Ortega G, Zhang Y, Abdullah F. Risk of perforation increases with delay in recognition and surgery for acute appendicitis. J Surg Res 2013;184(2):723-729. DOI: 10.1016/j.jss.2012.12.008. (Date accessed 02/10/2014)
- 4) Rory Farrell. Appendicectomy patient information leaflet. 2nd ed. Gateshead. Gateshead Health NHS Foundation Trust; 2010. Information leaflet number NoIL323.www.gegateshead.nhs.uk/sites/.../leaflets/IL323%20Appendicectomy.pdf
- 5) Namir Katkhouda, Rodney J. Mason, Shirin Towfigh, Anna Gevorgyan and Rahila Essani. Laparoscopic Versus Open Appendectomy A Prospective Randomized Double-Blind Study. Annals of Surgery 2005; 242(3):439-450. (Date accessed 05/09/2014).
- 6) Rollins KE, Varadhan KK, Neal KR and Lobo DN. Antibiotics Versus Appendicectomy for the Treatment of Uncomplicated Acute Appendicitis: An Updated Meta Analysis of Randomised Controlled Trials. World Journal of Surgery 2016; 40: 2305-2318
- 7) Podda M, Cillara N, Di Saverio S, Lai A, Feroci F et al. Antibiotics-first strategy for uncomplicated acute appendicitis in adults is associated with increased rates of peritonitis at surgery. A systematic review with meta-analysis of randomized controlled trials comparing appendectomy and non-operative management with antibiotics. The Surgeon 2017; 15(5): 303-314
- 8) McCutcheon BA, Chang DC, Marcus LP, Inui T, Noorbakhsh A, Schallhorn C, Parina R, Salazar FR, Talamini MA. Long-term outcomes of patients with nonsurgically managed uncomplicated appendicitis. JACS 2014; 218(5):905-13. DOI: 10.1016/j.jamcollsurg.2014.01.003. (Date accessed 04/101/2014).
- 9) Krishna K Varadhan, Keith R Neal, Dileep N Lobo. Safety and efficacy of antibiotics compared with appendicectomy for treatment of uncomplicated acute appendicitis: meta-analysis of randomized controlled trials. BMJ 2012; 344-359. DOI: 10.1136/bmj.e2156. (Date accessed 06/09/2014).
- 10)Kirby A, Hobson RP, Burke D, Cleveland V, Ford G and West RM. Appendicectomy for suspected uncomplicated appendicitis is associated with fewer complications than conservative antibiotic management: A meta-analysis of post-intervention complications. J Infect 2014;pii:S0163-4453(14):00269-2. DOI: 10.1016/j.jinf.2014.08.009. (Date accessed 05/09/2014)

PALS

The Patient Advice and Liaison Service (PALS) ensures that the NHS listens to patients, relatives, carers and friends, answers questions and resolves concerns as quickly as possible. If you have a query or concern call 01271 314090 or email ndht.pals@nhs.net. You can also visit the PALS and Information Centre in person at North Devon District Hospital, Barnstaple.

Have your say

Northern Devon Healthcare NHS Trust aims to provide high quality services. However, please tell us when something could be improved. If you have a comment or compliment about a service or treatment, please raise your comments with a member of staff or the PALS team in the first instance.

'Care Opinion' comments forms are on all wards or online at www.careopinion.org.uk.

Northern Devon Healthcare NHS Trust Raleigh Park, Barnstaple Devon EX31 4JB Tel. 01271 322577 www.northdevonhealth.nhs.uk

© Northern Devon Healthcare NHS Trust
This leaflet was designed by the Communications Department.
Tel: 01271 313970 / email: ndht.contactus@nhs.net