This fact sheet has been prepared to help you understand more about anal cancer. Many people feel shocked and upset when told they have anal cancer. We hope this fact sheet will help you, your family and friends understand how anal cancer is diagnosed and treated.

About the anus
The anus is the opening at the end of the bowel. It is made up of the last few centimetres of the bowel (anal canal) and the skin around the opening (anal margin). During a bowel movement, the muscles of the anus (sphincters) relax to release the solid waste matter known as faeces, stools or poo.

What is anal cancer?
Anal cancer is cancer affecting the tissues of the anus. Cancer is a disease of the cells. Cells are the body’s basic building blocks – they make up tissues and organs. The body constantly makes new cells to help us grow, replace worn-out tissue and heal injuries.

Normally, cells multiply and die in an orderly way, so that each new cell replaces one lost. Sometimes cells become abnormal and keep growing. These abnormal cells may form a lump called a tumour.

If the cells in a tumour are cancerous, they can spread through the bloodstream or lymph vessels and form another tumour at a new site. This new tumour is known as secondary cancer or metastasis.

Types of anal cancer

**Squamous cell carcinoma (SCC)**
Most anal cancers are SCCs. These start in the flat (squamous) cells lining much of the anus. The term “anal cancer” commonly refers to SCCs, and this fact sheet focuses on this type of anal cancer.

**Adenocarcinoma**
Some anal cancers are adenocarcinomas. These start in cells in the anal glands. This type of anal cancer is treated in a similar way to bowel cancer.

→ See our Understanding Bowel Cancer booklet.

**Skin cancer**
In rare cases, SCCs can affect the skin just outside the anus. These are called perianal skin cancers. If they are not too close to the sphincter muscles, they can be treated in a similar way to SCCs on other areas of the skin.

→ See our Understanding Skin Cancer booklet.

For copies of Cancer Council booklets, call 13 11 20 or visit your local website (see page 4 for details).
How common is anal cancer?
Every year, about 460 people are diagnosed with anal cancer in Australia. It is more common over the age of 50 and is slightly more common in women than in men. The number of people diagnosed with anal cancer has increased over recent decades.

What are the risk factors?
About 80% of anal cancers are caused by infection with a very common virus called human papillomavirus (HPV). HPV can infect the surface of different areas, including the anus, cervix, vulva, vagina, penis, mouth and throat. Unless they are tested, most people won’t know they have HPV infection as it usually doesn’t cause symptoms.

HPV infection is the main risk factor for anal cancer, but other factors that may increase the risk include:
• having a weakened immune system, e.g. because of human immunodeficiency virus (HIV) infection, an organ transplant, or an autoimmune disease such as coeliac disease, lupus or Graves’ disease
• being a man who has had sex with other men
• having anal warts
• having had an abnormal cervical screening test or cancer of the cervix, vulva or vagina
• smoking tobacco
• being aged over 50.

Some people with anal cancer do not have any of these risk factors.

What are the symptoms?
In its early stages, anal cancer often has no obvious symptoms, but some people may have symptoms such as:
• blood or mucus in faeces or on toilet paper
• itching, discomfort or pain around the anus, or a feeling of fullness, discomfort or pain in the rectum
• a lump near the edge of the anus
• ulcers around the anus
• difficulty controlling bowel movements.

Not everyone with these symptoms has anal cancer. Other conditions, such as piles (haemorrhoids) or tears in the anal canal (anal fissures), can also cause these changes. If the symptoms are ongoing, see your general practitioner (GP) for a check-up.

Diagnosis
The main tests for diagnosing anal cancer are a physical examination and an endoscopy with biopsy.

Physical examination – The doctor inserts a gloved finger into your anus to feel for any lumps or swelling. This is called a digital anorectal examination (DARE).

Endoscopy with biopsy – The doctor inserts a narrow instrument called a sigmoidoscope or colonoscope into your anus to see the lining of the anal canal. This may be done under a general anaesthetic so that a tissue sample (biopsy) can be taken. The biopsy will be sent to a laboratory for testing.

If anal cancer is found, you may need one or more imaging scans to check if it has spread. These scans may include an MRI, an endorectal ultrasound, a CT scan or a PET–CT scan. To find out about these tests, visit your local Cancer Council website or call Cancer Council 13 11 20.

Staging anal cancer
Staging describes how far the cancer has spread. Knowing the stage helps doctors plan the best treatment for you. Anal cancer is staged using the TNM (tumour–nodes–metastasis) system.

<table>
<thead>
<tr>
<th>T (tumour)</th>
<th>indicates how far the tumour has grown into the bowel wall and nearby areas: T1 is a smaller tumour; T4 is a larger tumour</th>
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<th>N (nodes)</th>
<th>shows if the cancer has spread to nearby lymph nodes (small glands): N0 means no cancer is in the lymph nodes; N1 means cancer is in the lymph nodes around the rectum; N2 means cancer is in pelvic and/or groin lymph nodes on one side; N3 means cancer is in other nearby lymph nodes</th>
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<th>M (metastasis)</th>
<th>shows if the cancer has spread to other, distant parts of the body: M0 means cancer has not spread; M1 means cancer has spread</th>
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Understanding Anal Cancer

Treatment
Because anal cancer is rare, it is recommended that you are treated in a specialised centre with a multidisciplinary team (MDT) who regularly manages this cancer. The team will work out the best treatment for you, depending on the type and location of the cancer; whether the cancer has spread (its stage); your age and fitness; and your preferences. You may want to get a second opinion from another specialist team to confirm or explain the treatment options.

Understanding the disease, the available treatments, possible side effects and any extra costs can help you weigh up the treatment options and make a well-informed decision. Most anal cancers are treated with a combination of radiation therapy and chemotherapy, which is known as chemoradiation or chemoradiotherapy. Surgery may also be used in some cases (see next page).

Chemoradiation
This treatment combines a course of radiation therapy with some chemotherapy sessions. The chemotherapy makes the cancer cells more sensitive to the radiation therapy.

For anal cancer, a typical treatment plan might involve a session of radiation therapy every weekday for several weeks, as well as chemotherapy on some days during the first and fifth weeks. This approach allows for lower doses of radiation therapy.

Radiation therapy – Also known as radiotherapy, this treatment uses targeted radiation, such as x-ray beams, to kill or damage cancer cells. Treatment is carefully planned to do as little harm as possible to the normal body tissue around the cancer. During a treatment session, you lie under a machine that delivers radiation to the treatment area. It usually takes 10–20 minutes to set up the machine, but the treatment itself takes only a few minutes and is painless. You will be able to go home afterwards.

Chemotherapy – This is the treatment of cancer with anti-cancer (cytotoxic) drugs. It aims to kill cancer cells while doing the least possible damage to healthy cells. For anal cancer, the drugs are usually given into a vein through an intravenous (IV) drip.

Side effects of chemoradiation
Both radiation therapy and chemotherapy can have side effects. These can occur during or soon after the treatment (early side effects), or many months or years later (late side effects).

Early side effects – These usually settle down in the weeks after treatment. They may include:
• tiredness
• appetite loss, nausea and vomiting – nausea and vomiting are usually prevented with medicines
• bowel changes, such as diarrhoea and more frequent, urgent or painful bowel movements
• passing urine more often, experiencing pain when urinating, or leaking urine (incontinence)
• skin changes, with redness, itching, peeling or blistering around the anus, genital areas and groin – your team will recommend creams for this
• pain in the anal region – talk to your treatment team about a pain management plan
• increased risk of infection – if you have a temperature over 38°C, contact your doctor or go to a hospital emergency department
• loss of pubic hair.

Late side effects – These can occur several months, or even years, after treatment ends. They vary a lot from person to person, but may include:
• bowel changes, with scar tissue in the anal canal or rectum leading to ongoing frequent, urgent or painful bowel movements
• dryness, shortening or narrowing of the vagina (vaginal stenosis) – can be prevented or minimised by using vaginal dilators regularly
• impacts on sexuality, including painful intercourse, difficulty getting erections or loss of pleasure
• effects on the ability to have children (fertility).
→ See our Understanding Radiation Therapy and Understanding Chemotherapy booklets.

Effects on sexuality and fertility
Chemoradiation for anal cancer can have a range of effects on sexuality and may also affect fertility. Ask your doctor about ways to manage these changes, as early treatment and support can help. You can also read our booklets on sexuality and fertility and listen to our “Sex and Cancer” podcast.
Understanding Anal Cancer

Surgery
Surgery may be used to treat very early anal cancer or in a small number of other situations.

Surgery for very small tumours – An operation called local excision can remove very small tumours located near the entrance of the anus (anal margin) if they are not too close to the muscles of the anus. The surgeon will give you a local or general anaesthetic and insert an instrument into the anus to remove the tumours. Once the wound heals, the anal canal will still work in the normal way.

Abdominoperineal resection – For most people with anal cancer, chemoradiation is the main treatment. It is usually very effective and allows you to keep your anal canal. A major operation called an abdominoperineal resection may be an option if you cannot have chemoradiation because you have previously had radiation therapy to the pelvic region. This operation may also be used if anal cancer comes back after chemoradiation.

In an abdominoperineal resection, the anus, rectum and part of the colon (large bowel) are removed. The surgeon uses the remaining colon to create a permanent stoma, an opening in the abdomen that allows faeces to leave the body. A stoma bag is worn on the outside of the body to collect the faeces. See our Understanding Bowel Cancer booklet.

Follow-up appointments
After treatment, you will need check-ups every 3–12 months for several years to confirm that the cancer hasn’t come back. Between visits, let your doctor know immediately if you have new symptoms in the anal region or any other health problems.

Questions for your doctor
You may find this checklist helpful when thinking about the questions you want to ask your doctor.

• What type of anal cancer do I have? What part of the anus is affected? Has the cancer spread?
• What treatment do you recommend? What are the risks and possible side effects?
• Are there any other treatment options for me?
• Will the treatment affect my sexual function or pleasure? Will the treatment affect my fertility?
• Do I have HPV? Can I pass on HPV to my partner? Should I or my partner get vaccinated against HPV?
• Are there any clinical trials or studies I could join?
• How often will I need check-ups? Can I examine myself in between check-ups?
• If the cancer comes back, how will I know? What treatments could I then have?

Where to get help and information
Call Cancer Council 13 11 20 for more information about anal cancer. Health professionals can listen to your concerns, put you in touch with local services and send you free copies of our booklets. You can also visit your local Cancer Council website:

ACT ................................................ actcancer.org
NSW ........................................... cancercouncil.com.au
NT ............................................... nt.cancer.org.au
QLD ........................................... cancerqld.org.au
SA ................................................ cancer.sa.org.au
TAS ........................................... cancertas.org.au
VIC ........................................... cancervic.org.au
WA ........................................... cancerwa.asn.au
Australia ...................................... cancer.org.au

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Note to reader: Always consult your doctor about matters that affect your health. This fact sheet is intended as a general introduction and is not a substitute for professional medical, legal or financial advice. Information about cancer is constantly being updated and revised by the medical and research communities. While all care is taken to ensure accuracy at the time of publication, Cancer Council Australia and its members exclude all liability for any injury, loss or damage incurred by use of or reliance on the information provided in this fact sheet.