

## Pancreatic cancer

The pancreas is a gland of the digestive system. It is joined to the small bowel by a duct. Pancreatic cancer starts in the cells that line this duct and spreads into the body of the pancreas, before invading nearby nerves and blood vessels. If left untreated, it will spread to all the organs in the abdomen. Pancreatic cancer may also enter the lymphatic system and spread to other parts of the body.

The causes of pancreatic cancer are unknown but smokers are at greater risk. It is more common over the age of 65 and is relatively uncommon in people under 50. About 500 Victorians develop pancreatic cancer each year.

### The role of the pancreas

The pancreas has two major roles in the digestive system:

- It produces enzymes to help break down food.
- It produces insulin, which controls the amount of sugar in the blood. Problems with insulin production can lead to diabetes.

### Risks and causes

Pancreatic cancer is caused by damage to genes, but it is not known exactly why this damage happens. The risk of pancreatic cancer is greater for smokers.

Other risk factors include:

- Age – it is more common in people over the age of 65 years
- Inheriting a damaged gene
- Diabetes – between 10 and 20 per cent of people with pancreatic cancer also have diabetes
- Having had surgery to remove all or part of your stomach (gastrectomy).

### Symptoms

The symptoms of pancreatic cancer are often vague and can appear similar to those caused by other, less serious conditions. This means that pancreatic cancer is often not diagnosed until it is quite advanced. Some of the common symptoms may include:

- Persistent pain in the abdomen
- Loss of appetite
- Feeling sick (nausea)
- Weight loss
- Change in your bowel habits (diarrhea or constipation)
- Severe back pain, in some cases.

If your bile duct is blocked, you may also have:

- Yellowing of the skin and eyes and itchy skin (jaundice)
- Dark urine
- Pale faeces (bowel motions or poo).

### Diagnosis

If pancreatic cancer is suspected, your doctor will refer you for tests. These may include:

- **Blood tests** – to check how well your liver and kidney are working and to measure for a protein known as CA19.9. Pancreatic cancer often sends CA19.9 into the blood. It is not used to diagnose pancreatic cancer, but it gives your doctor important information about the cancer.
- **CT scan** – a special x-ray taken from many different angles to build a three-dimensional picture of your body. A dye may be injected to further highlight internal organs.
- **Magnetic resonance imaging (MRI)** – similar to a CT scan but uses magnetism instead of x-rays to build three-dimensional pictures of your body.
- **Ultrasound** – sound waves create a picture of your pancreas.
- **Endoscopy** (also called endoscopic retrograde cholangio-pancreatography, ERCP) – a thin telescope is inserted down your throat to allow the doctor to see inside your digestive system. This device may also be used to inject dye into the pancreas and bile duct to allow images of these organs to appear on x-ray pictures.
- **Laparoscopy** – the internal organs are examined with an instrument inserted into the abdomen through a small cut.
- **Tissue biopsy** – a small sample of the pancreas is removed with a needle and examined in a laboratory.
- **Positron emission tomography (PET) scan** – an injection with a glucose solution containing a very small amount of radioactive material is given. The scanner can 'see' the radioactive substance. Cancerous cells show up as 'hot spots' – areas where the glucose is being taken up.

These tests can also help your doctor find out if your cancer has spread. The cancer may have spread into blood vessels or lymph nodes near the pancreas or into organs further away, like the liver or the lungs. This is called metastasis. The tests you have help your doctors 'stage' the disease so they can work out the best treatment for you.

### Treatment

Treatment for pancreatic cancer depends on your age and general health, the size and location of the cancer and whether it has spread to other parts of the body. You may receive one type of treatment or a combination. Generally, options include:

- **Surgery** – is used when the cancer has not spread beyond the pancreas. The cancer and part of the pancreas and part of the small bowel are removed in an operation called 'Whipple's resection'. Some of the bile ducts, gall bladder and stomach may also be removed. This is major surgery and you need to be fit enough to have it.
- **Radiotherapy** – radiation may be used after surgery to destroy any cancer cells that may remain in the body. It may also be given as the main treatment when surgery is not possible, in combination with chemotherapy.
- **Chemotherapy** – either tablets or injections of anti-cancer medications may be used after surgery. The drugs work by stopping cancer cells growing and reproducing. Chemotherapy may be given with surgery or alone to help control the symptoms of an advanced cancer.

### When a cure isn't possible

If the cancer has spread and it is not possible to cure it with surgery, your doctor may still recommend treatment that focuses on improving quality of life by relieving the symptoms (this is called palliative treatment). This can help make you feel better and may allow you to live longer.

Options may include:

- **Endoscopic treatment** – the cancer may cause jaundice because it is blocking the bile duct. Endoscopic surgery relieves the pressure by inserting a metal or plastic tube into the bile duct to keep it open. Similar treatment can relieve a section of the small bowel if the cancer is pressing on it.
- **Surgery** – a blockage in the small bowel can be bypassed by surgery that attaches a loop of bowel directly to the stomach.
- **Tablets** – there may be a lack of pancreatic enzymes to properly digest fats, which results in diarrhoea. Tablets containing these enzymes can control this.
- **Pain-relieving drugs** – oral medication is usually given to control pain, but pain-killing medication can be injected into the nerves of the back if the pain is particularly severe.

All treatments can have side effects. Your medical team will discuss these with you before you begin any type of treatment.

### Where to get help

- Your doctor
- Specialist
- The Cancer Council Victoria, Cancer Helpline Tel. 131 120
- Multilingual Cancer Information Line, Victoria - see the CCV website for contact details

### **Things to remember**

- The pancreas is a gland that secretes digestive enzymes and insulin.
- The symptoms of pancreatic cancer are often vague and are common to many other disorders.
- Pancreatic cancer is often only diagnosed in its later stages, which makes it difficult to treat.

**This page has been produced in consultation with, and approved by:**

Cancer Council Victoria

**Copyright** © 1999/2010 State of Victoria. Reproduced from the Better Health Channel ([www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.

- This Better Health Channel fact sheet has passed through a rigorous approval process. For the latest updates and more information visit [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au).