Pancreatic Cancer U K

How is pancreatic cancer diagnosed?

This fact sheet is for anyone having tests for pancreatic cancer. Families may also find it helpful. It explains the different tests that you might have, what they involve, and what your test results mean. There is also information about the support available to you.

Every hospital will do things slightly differently, so speak to your GP, consultant or specialist nurse if you have any questions.



You can also speak to our specialist nurses on our confidential Support Line. Call free on **0808 801 0707** or email **nurse@pancreaticcancer.org.uk**

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Why is pancreatic cancer difficult to diagnose?

Pancreatic cancer can be difficult to diagnose. This is because it doesn't usually cause many specific symptoms in the early stages, and symptoms can be quite vague. Symptoms vary from person to person and you may not have all of them.

Symptoms may include:

- tummy (abdominal) pain
- back pain
- unexplained weight loss
- indigestion
- loss of appetite
- changes to your bowel habits
- jaundice (yellow skin and eyes, and itchy skin).

Having these symptoms doesn't always mean that you have pancreatic cancer, but you should get them checked out by the GP. They can be caused by other health conditions, such as irritable bowel syndrome (IBS), gallstones or pancreatitis (inflammation of the pancreas).

If you have jaundice, see your GP straight away. If you have any of the other symptoms, and they last four weeks or more, go to your GP.



Read more about the symptoms of pancreatic cancer at pancreaticcancer.org.uk/symptoms

- "You may have just one of these symptoms, but it is still important to go to your GP."
- "From when you suspect a problem, just note down any symptoms, however vague or insignificant you feel they may be."

Seeing your GP

Give your GP a good description of your symptoms, including any changes to your bowel habits. It can help to keep a diary of your symptoms. Tell your GP about anything unusual, even if you aren't sure it's important. If your GP asks you to come back for another appointment, make sure you do.

Some people see their GP several times before getting a diagnosis. If you have unexplained symptoms that last four weeks or more, go back to your GP until you get a firm diagnosis, or a referral for tests to find out what's causing them.

Doctors will need to rule out all other possible causes for your symptoms. You may need several different tests (see page 5), and it may take some time to get a diagnosis.



Read our **10 Top Tips** for helping you talk to your GP at pancreaticcancer.org.uk/talkingtoyourgp

"Sometimes you really need to push for tests to be done."

Will the GP refer me for tests?

Your GP may refer you for tests at the hospital (see page 5) to work out what is causing your symptoms.

If you have jaundice, your GP should refer you for an urgent appointment at the hospital within two weeks.

Your GP should also refer you for an urgent CT scan (or urgent ultrasound scan if a CT scan isn't available) within two weeks if you are over 60 (over 55 in Scotland), and have unexplained weight loss **and any** of the following symptoms:

- tummy or back pain
- nausea or vomiting (feeling or being sick)
- diarrhoea (runny poo)
- constipation (when you find it harder to poo)
- or you have been diagnosed with diabetes in the past year.

Being referred urgently does not necessarily mean that you have cancer.

If you are very unwell, your GP may send you straight to hospital. Or you may go to accident and emergency (A&E) yourself, for example if you have severe pain. Once you are in hospital, the doctors can assess your symptoms and do tests to work out what's wrong. They can also treat any symptoms you have.

How long will I have to wait for my tests?

In England, if your GP has referred you because of suspected pancreatic cancer for either an appointment with a specialist, a test, or a scan, you should have this within two weeks from the referral date. If you haven't heard anything within two weeks, speak to your GP.

Scotland, Wales and Northern Ireland don't have a set time for referral for suspected pancreatic cancer. But wherever you live, you should be seen as quickly as possible.

If your GP doesn't suspect cancer and you haven't been given an urgent referral, you may have to wait several weeks for tests.

People with pancreatic cancer can start to feel very unwell quite quickly. If your symptoms get worse or you start to feel more unwell while you are waiting for tests, speak to your GP, as you may need to be seen sooner. They can also help you manage symptoms.

Rapid diagnostic centres

Rapid diagnostic centres (RDCs) are a new service that are available in some parts of England. In Scotland they are called early cancer diagnostic centres and are expected to start in 2021. They should become available in Wales and Northern Ireland in the next few years. These centres aim to diagnose people with vague symptoms that could be cancer more quickly. This includes people with pancreatic cancer symptoms.

If there is an RDC near you, and your GP thinks your symptoms could be cancer, they can refer you to the RDC for tests. You will have all your tests done on the same day where possible. And you will receive your diagnosis quickly.

Most people seen at an RDC will not have cancer. If you do have cancer, you will then be referred for treatment.



Questions to ask your doctor or nurse

Will you refer me for any tests?

Do I need to be referred urgently in case I have cancer?

What tests will I have?

How long will I have to wait to have these tests?

Who will contact me to arrange these tests?

If there's a long wait, can I get tests done privately?

Can I be referred to a rapid diagnostic centre?

What can I do to help with my symptoms?

Tests for pancreatic cancer

You may need several tests to work out what's causing your symptoms. If you are diagnosed with pancreatic cancer, your doctors will use the test results (see page 13) to help decide the best treatment for you.

If you have any questions about the tests you are having and why you are having them, speak to your doctor.



You can also speak to our specialist nurses on our free Support Line.

What tests are used to diagnose pancreatic cancer?

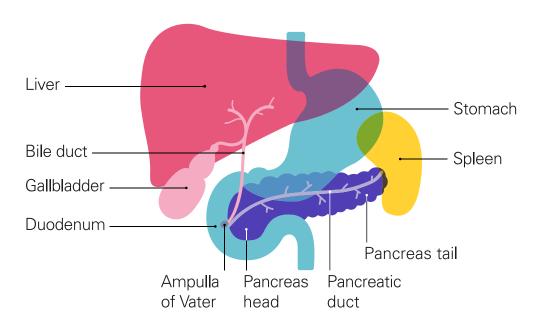
You may have tests that diagnose pancreatic cancer, but then need more tests to find out exactly what type of pancreatic cancer you have and what stage it is (see page 13). You may not need all these tests, and you may not have them in this order.

Tests used to help diagnose pancreatic cancer include:

- blood tests (see page 7)
- ultrasound scan of the tummy area (see page 7)
- CT (computerised tomography) scan (see page 7)
- MRI (magnetic resonance imaging) scan (see page 8)
- EUS (endoscopic ultrasound scan) (see page 8)
- biopsy (see page 9)
- PET-CT scan (positron emission tomography) (see page 9)
- ERCP (endoscopic retrograde cholangio-pancreatography) (see page 10)
- MRCP (magnetic resonance cholangio-pancreatography) (see page 11)
- laparoscopy (see page 11).

You may find this diagram helpful when reading about some of the tests.

The pancreas and surrounding organs



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Blood tests

Blood tests are used to check your blood cell levels (blood count), how well your liver and kidneys are working, and your general health. If you have jaundice (see page 2), a blood test will show how bad the jaundice is.

Blood tests can also check for chemical substances produced by cancers called tumour markers. CA19-9 is a marker that may be used to help diagnose pancreatic cancer. But not all pancreatic cancers produce tumour markers, and illnesses that aren't cancer can also produce them. This means blood tests must be used together with other tests to make a diagnosis.

Ultrasound scan of the tummy

Ultrasound scans use sound waves to make a picture of the inside of the body. The images are displayed on a screen.

The scan is done while you are awake. Gel is spread on the skin of your tummy, then a probe is passed over the area. It can take up to 30 minutes and you can go home as soon as it's over.

CT (computerised tomography) scan

A CT scan uses x-rays to create a 3D picture of the pancreas and the organs around it. If you have jaundice and suspected pancreatic cancer or have had another scan that showed a problem with your pancreas, you should be offered a CT scan.

If your diagnosis still isn't clear after a CT scan, you should be offered a PET-CT scan (see page 9) or an EUS (see page 8) with a biopsy.

The National Institute for Health and Care Excellence (NICE) guidelines (see page 22) recommend that if you've been diagnosed with pancreatic cancer and haven't had a CT scan, you should be offered one. This is to check for any signs of cancer outside the pancreas and to decide the best treatment for you.

What does the scan involve?

During the scan, you will have an injection of dye into a vein to help to show the blood vessels in the area. You will be awake during the scan. You won't feel any discomfort, but you may have a warm feeling while the dye is being injected.

You will lie flat on a bed that moves through the scanner, and x-rays will be taken from different directions. The CT scan usually lasts about 15 minutes, and you will probably be able to go home straight afterwards.

MRI (magnetic resonance imaging) scan

MRI scans use magnets and radio waves to build up detailed pictures of the pancreas and surrounding areas.

As the MRI scan uses magnets, you will be asked whether you have any metal implants, such as a pacemaker or pins in your bones. People with certain metal implants won't have an MRI because of the magnets in the scanner. You will need to make sure you have no metal objects on you, including jewellery or zips on your clothes.

What does the scan involve?

The scanner is shaped like a tunnel, and you will lie on a bed that moves into it. The scanner is noisy so you may be given earplugs or headphones. You won't feel anything during the scan. You will be able to hear and talk to the radiographer who operates the scanner from outside the room. The scan usually takes 20-30 minutes and you can go home afterwards.

EUS (endoscopic ultrasound scan)

You may be offered an EUS together with a biopsy if your diagnosis still isn't clear after having a CT scan. A biopsy involves taking tissue samples (see page 9).

What does the scan involve?

A thin tube (called an endoscope) is passed through your mouth and down into your stomach. The tube has a light at the end and a small ultrasound probe. The ultrasound probe creates detailed pictures that help to show where the cancer is in the pancreas, how big it is and if it has spread outside the pancreas.

You will have a throat spray of local anaesthetic to numb your throat. You will also have a sedative, which won't put you to sleep but will make you feel drowsy and relaxed. This makes it easier for the doctor to pass the endoscope into your stomach.

If you are having a biopsy with the EUS, a needle is passed through the tube to take tissue samples. This is called an EUS-guided fine-needle aspiration (EUS-FNA). You may hear this test called an EUS-guided fine needle biopsy (EUS-FNB) if a larger tissue sample is taken.

The EUS takes 30-60 minutes and you will probably be able to go home a couple of hours afterwards. You will need someone to take you home, as you can't drive for 24 hours after having a sedative.

Biopsy

A biopsy involves taking small tissue samples to be examined under a microscope. You may be offered a biopsy together with an EUS if your diagnosis still isn't clear after having a CT scan.

A biopsy is the only way of being absolutely sure that you have pancreatic cancer. But it can sometimes be difficult to get enough tissue to make a diagnosis, and a second biopsy may be needed.

The results can show exactly what type of cancer you have, which may help the doctors decide on the most suitable treatment. You will need to have a biopsy to confirm your diagnosis before having chemotherapy, chemoradiotherapy (chemotherapy combined with radiotherapy) or starting a clinical trial.

What does this test involve?

A biopsy can be taken during a CT scan (see page 7), EUS (see page 8 for more about biopsy with EUS), ERCP (see page 10) or laparoscopy (see page 11).

If the biopsy is taken during a CT scan the doctor will put a needle through your skin into the area where they think there may be cancer and remove a small sample of tissue. This is done under a local anaesthetic, so you will be awake but won't feel anything.

If you are having surgery to remove pancreatic cancer, for example a Whipple's operation, you may not have a biopsy. The tissue removed during surgery will be examined under a microscope to confirm that it is cancer.

If you're not sure if you've had a biopsy, ask your doctor or nurse about this.

PET-CT scan

This combines a CT scan (see page 7) with a PET (positron emission tomography) scan. A PET-CT scan helps to provide a clearer picture of the cancer. It may be used to learn more about the stage of the cancer and how best to treat it (see page 13). It may also be used after you have been diagnosed to check whether there is a chance of the cancer spreading, or to check how your treatment is working.

The NICE guidelines (see page 22) recommend that if a diagnosis isn't clear following a CT scan, you should be offered a PET-CT scan. If you have been diagnosed with pancreatic cancer that is contained within the pancreas (localised pancreatic cancer) after a CT scan, you should also be offered a PET-CT scan. This helps to confirm whether you can have surgery to remove the cancer.



What does the scan involve?

A PET-CT scan is similar to a CT scan (see page 7). A harmless radioactive substance called fluorodeoxyglucose (FDG) will be injected into a vein in your arm. You will have the scan about an hour after the injection. The scan takes 20-45 minutes, and you can usually go home straight afterwards.

The FDG injection contains sugar, so people with diabetes may need to have their blood sugar levels monitored before they can have this scan. Speak to your doctor or nurse about this.

ERCP (endoscopic retrograde cholangio-pancreatography)

An ERCP is sometimes used to diagnose problems with the pancreas. It is usually used if your bile duct is blocked, to put a small tube (called a stent) into the bile duct to unblock it. The bile duct is the tube that carries fluid (bile) from the liver to the duodenum (the first part of the small intestine) – see diagram on page 6.

What does this test involve?

An ERCP uses an endoscope and the procedure is similar to an EUS (see page 8 for more about how an EUS is done). But an ERCP also involves taking x-rays. Dye is injected through the endoscope so that any blockages will show up on the x-rays.

While the endoscope is in place the doctor may use a small brush to take cells from the bile duct to check under a microscope. They may also take a biopsy (see page 9). If you are having a stent put in with an ERCP and haven't already had tissue samples taken, the doctor should take a tissue sample during the ERCP.

If your ERCP is done to get x-rays and tissue samples, you will probably be able to go home after a few hours. You will need someone to take you home, as you can't drive for 24 hours after having a sedative. If your ERCP is done to insert a stent, you may need to stay in hospital overnight.

You will be given details of who to contact if you have any problems after the ERCP.



Read more about how a stent is inserted in our fact sheet: Stents and bypass surgery for pancreatic cancer Or at: pancreaticcancer.org.uk/stents

MRCP (magnetic resonance cholangio-pancreatography)

An MRCP is a type of MRI scan (see page 8) that looks at the bile duct, liver, gallbladder and pancreas. It can give clearer pictures of the bile duct and pancreatic duct, and any blockages in them.

You may have an injection of a dye to help make the pictures clearer. The scan takes 20-30 minutes and you will be able to go home straight after it.

Laparoscopy

A laparoscopy is not done very often. This is a small operation, sometimes called keyhole surgery, which can be used to:

- help check that the cancer can be removed by surgery, before you have the actual surgery
- confirm a diagnosis of pancreatic cancer
- work out the stage of the cancer (see page 13).

A biopsy may also be taken during a laparoscopy.

What does a laparoscopy involve?

You will have a general anaesthetic, so you are asleep and won't feel anything. A long tube with a camera at one end is inserted through a small cut in your tummy. Other small cuts may be made so that instruments can be inserted to help with the examination.

You will need to recover from the anaesthetic before you go home, but you may be able to go home on the same day. You will need someone to take you home and look after you overnight.

If you have any questions about any of your tests, speak to your medical team.



You can also speak to our specialist nurses on our free Support Line.

How long will I have to wait for my test results?

It may take from a few days to a couple of weeks to get the test results – ask how long it will be when you go for the test. You can also ask who to contact if you don't hear anything. You will need an appointment with your specialist to find out what the results show and discuss what happens next.

Your test results should also be sent to your GP, and you may be sent a copy of the letter. If there's anything in the letter that's not clear, your GP or medical team can help explain what it means.



You might also find it helpful to talk things over with one of our specialist nurses on our free Support Line, as waiting for test results can be an anxious time.



Questions to ask your doctor or nurse

Have you done a biopsy as part of these tests?

When will I get my test results?

Who will give me my test results?

Who can I contact if I have any questions?

What do my test results mean?

Your doctor will explain what the tests have found, and whether you have pancreatic cancer or not.

If you don't have pancreatic cancer

If the tests show that you don't have pancreatic cancer, you may be very relieved. If you still have symptoms, make sure you keep going back to your GP to find out what's causing them until you get a proper diagnosis.

If you do have pancreatic cancer

If you do have pancreatic cancer, this news may come as a shock. Read more about dealing with your diagnosis on page 18.

The test results will give your doctor detailed information about the cancer.

Depending on what tests you have already had, you may need more tests after your diagnosis to find out what stage the cancer is and what treatment you may need. These tests may include a CT scan, MRI scan, PET-CT scan, an EUS or a laparoscopy.

You should be offered a CT scan if you haven't already had one. This helps the doctors work out the stage of your cancer and decide the best way to treat it.

What does the stage of the cancer mean?

The stage of your cancer describes the size of the cancer and whether it has spread outside the pancreas or to other parts of the body.

Your doctor may tell you the stage of your cancer and explain exactly what this means and how it affects your treatment options. Some doctors may just focus on whether or not your cancer can be removed with surgery, rather than the stage.

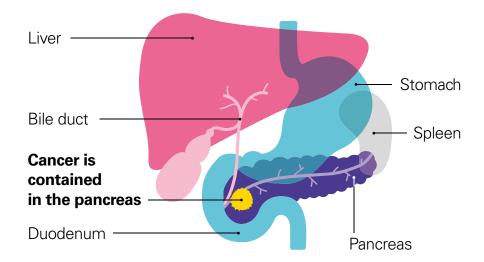
One type of staging uses numbers to describe the stage of the cancer. Read more on pages 14-17.



Stage 1 pancreatic cancer

The cancer is contained inside your pancreas. This is early, localised pancreatic cancer. It is also called operable or resectable cancer because surgery to remove the cancer may be possible.

- **Stage 1A** means that the cancer is smaller than 2cm.
- Stage 1B means that the cancer is 2-4cm in size but is still contained in the pancreas.





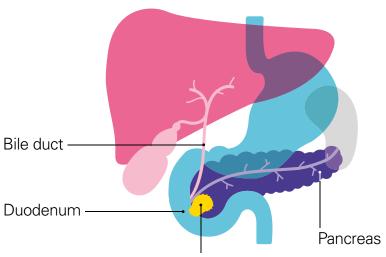
If you have been told you can have surgery to remove the cancer, read more in our booklet: Pancreatic cancer that can be removed with surgery. A guide if you have just been diagnosed.

Stage 2 pancreatic cancer

The cancer may have grown larger. It may have spread to a small number of lymph nodes near the pancreas. Lymph nodes are small glands found around the body that are part of the immune system. The cancer hasn't spread to large blood vessels near the pancreas.

- Stage 2A means that the cancer is larger than 4cm but has not spread to the lymph nodes.
- Stage 2B means the cancer is any size but has spread to 1-3 lymph nodes.

You might be able to have surgery to remove the cancer, but this depends on how far it's spread. You might also have chemotherapy.







If you have been told you can have surgery to remove the cancer, read more in our booklet: Pancreatic cancer that can be removed with surgery. A guide if you have just been diagnosed.

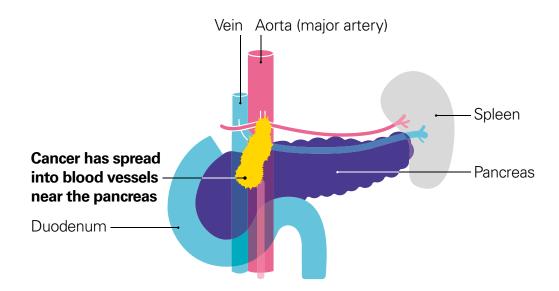


Stage 3 pancreatic cancer

The cancer has spread outside the pancreas. It may have spread to the large blood vessels near the pancreas, or to a number of lymph nodes. This is usually **locally** advanced cancer but it may occasionally be borderline resectable cancer.

If you have **locally advanced cancer**, it won't usually be possible to remove the cancer with surgery (unresectable cancer). You may be offered chemotherapy, sometimes with radiotherapy, to slow down the growth of the cancer. For a small number of people, this may shrink the cancer enough to make surgery possible.

Borderline resectable cancer is cancer that has grown very close to the major blood vessels near the pancreas. You may be able to have surgery to remove the cancer, but it depends which blood vessels are affected. You may have chemotherapy and possibly radiotherapy to try to shrink the cancer, before your doctors consider surgery.





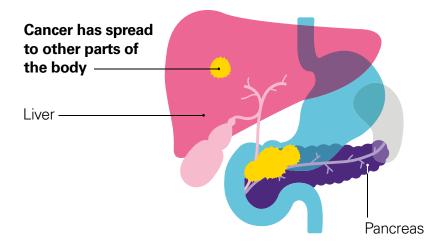
If you have been diagnosed with locally advanced cancer, find out more in our booklet: Pancreatic cancer if you can't have surgery (inoperable cancer). A guide if you have just been diagnosed.

If you have been told you have borderline resectable cancer, read our booklet: Pancreatic cancer that can be removed with surgery. A guide if you have just been diagnosed.

Stage 4 pancreatic cancer

The cancer has spread to other parts of the body. It may have spread to the lungs, liver or lining of your tummy (peritoneum). This is **advanced or metastatic cancer**.

It's not possible to remove the cancer with surgery (unresectable), as surgery can't remove all the cancer cells once they have spread to other parts of the body. You may still be able to have chemotherapy to slow down the growth of the cancer. There are also treatments to manage any symptoms.





If you have been told you have advanced cancer, you can find out more in our booklet: Pancreatic cancer if you can't have surgery (inoperable cancer). A guide if you have just been diagnosed.

TNM staging

Another system that is used is called TNM (Tumour Nodes Metastases) staging.

T is the size of the tumour.

- **T1:** the cancer is contained inside the pancreas and is smaller than 2cm.
- T2: the cancer is contained inside the pancreas. It is larger than 2cm but no larger than 4cm.
- T3: the cancer is larger than 4cm and has started to grow into tissues around the pancreas, but it hasn't grown into the large blood vessels.
- T4: the cancer has grown into nearby large blood vessels.

N shows whether the cancer has spread to the nearby lymph nodes.

- **N0:** the cancer hasn't spread to nearby lymph nodes.
- **N1:** the cancer has spread to 1-3 nearby lymph nodes.
- **N2:** the cancer has spread to 4 or more lymph nodes.

M shows whether the cancer has spread to another part of the body (metastatic cancer).

- M0: the cancer hasn't spread to other parts of the body.
- M1: the cancer has spread to other parts of the body, such as the liver or lungs.

Coping with your diagnosis

Being told that you have pancreatic cancer may come as a shock. Everyone reacts differently and there is no 'right' way to feel. It can take time to come to terms with your diagnosis. You might find you have good and bad days, and you will probably go through a range of emotions.

You and your family should be given information and support to help you deal with the emotional impact of pancreatic cancer. This support should be tailored to what you need and available throughout your care.





You can speak to our specialist nurses on our free Support Line for information and support. They can provide emotional support, as well as explaining what your diagnosis means, your treatment options, and how to manage symptoms.

Call free on 0808 801 0707 or email nurse@pancreaticcancer.org.uk



You can read more about dealing with the emotional impact of pancreatic cancer at pancreaticcancer.org.uk/coping

Read about all the support we provide on page 21. There are also other organisations that provide support on page 22.

What happens next?

If you have been diagnosed with pancreatic cancer, your case should be reviewed at a specialist cancer centre where there is a team of pancreatic cancer specialists. This team is called a multidisciplinary team (MDT). You might not meet everyone in the MDT, but your doctor or nurse should tell you what the MDT have decided.

You will be given a main contact, who will usually be a specialist nurse (sometimes called a clinical nurse specialist or CNS). They will support you and will be the person you speak to most.

You will probably have lots of questions – ask your doctor or nurse anything you want to know.

You can also speak to our specialist nurses on our free Support Line with any questions.





We have information for people who have just been diagnosed with pancreatic cancer. You can order these booklets at:

pancreaticcancer.org.uk/publications

- If you have been told you have early, localised cancer or borderline resectable cancer, order: Pancreatic cancer that can be removed by surgery. A guide if you have just been diagnosed.
- If you have locally advanced or advanced cancer, order: Pancreatic cancer if you can't have surgery. A guide if you have just been diagnosed.
- Our Newly diagnosed packs contain key publications for people just diagnosed.
- You can also read more on our website at: pancreaticcancer.org.uk/justdiagnosed
- Our leaflet, The care you should expect and receive: Patient Charter explains the care everyone diagnosed with pancreatic cancer should have.



Questions to ask your doctor or nurse

What do the test results say about my cancer?

What stage is the cancer?

Has the cancer spread? If so where to?

What are my treatment options?

What happens next?

Where can I get support?

More information and support

Pancreatic Cancer UK services

We are here for everyone affected by pancreatic cancer.

Our specialist nurses are here to talk now

If your world has been turned upside down by a pancreatic cancer diagnosis, we are here to talk now. We can answer your questions, recommend practical steps and provide the emotional support you and those close to you need, when you need it most.

Call free on 0808 801 0707 or email nurse@pancreaticcancer.org.uk

Expert information

Our free information covers everything about pancreatic cancer to help you understand your diagnosis, ask questions, make decisions and live as well as you can.

Go to: pancreaticcancer.org.uk/information

Download or order our free publications at pancreaticcancer.org.uk/publications or call 0808 801 0707

Our online forum

The forum is a supportive online space where everyone affected by pancreatic cancer can be there for each other at any time.

Go to: forum.pancreaticcancer.org.uk

Living with Pancreatic Cancer Online Support Sessions

Our online support sessions are hosted by our specialist pancreatic cancer nurses and will give you the chance to connect with others who have also been diagnosed.

Go to: pancreaticcancer.org.uk/supportsessions

Real life stories

Read other people's experiences of pancreatic cancer to find out how they coped with their diagnosis and treatment and their tips on looking after themselves.

Go to: pancreaticcancer.org.uk/stories



Useful organisations

Cancer Research UK

www.cancerresearchuk.org

Helpline: 0808 800 4040 (Mon-Fri 9am-5pm) Information for anyone affected by cancer.

Healthtalk

www.healthtalkonline.org

Personal experiences presented in written, audio and video formats, including people talking about pancreatic cancer.

Macmillan Cancer Support

www.macmillan.org.uk

Support Line: 0808 808 00 00 (7 days a week, 8am-8pm)

Provides practical, medical and financial support for anyone affected by cancer, including family members.

Maggie's Centres

www.maggies.org

Tel: 0300 123 1801

Centres around the UK and online offer free, comprehensive support for anyone affected by cancer.

National Institute for Health and Care Excellence (NICE) www.nice.org.uk

NICE have guidelines for health professionals diagnosing and caring for people with pancreatic cancer. These guidelines cover England, Wales and Northern Ireland. Read more at: pancreaticcancer.org.uk/NICE

There are also guidelines for referring people with suspected pancreatic cancer:

www.nice.org.uk/guidance/ng12

Scottish government website

www.gov.scot

The Scottish government has guidelines for referring people with suspected pancreatic cancer.

www.gov.scot/publications/scottish-referral-guidelines-suspected-cancerjanuary-2019/

This fact sheet has been produced by the Support and Information Team at Pancreatic Cancer UK.

We make every effort to make sure that our services provide up-to-date, accurate information about pancreatic cancer. We hope this will add to the medical advice you have had, and help you make decisions about your treatment and care. This information should not replace advice from the medical team – please speak to your doctor, nurse or other members of your medical team about any questions.

We would like to thank the following people who reviewed this information.

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- Jonathan Evans, Consultant Interventional Radiologist and Endoscopist, The Royal Liverpool University Hospital Trust
- Pancreatic Cancer UK Lay Information Reviewers
- Pancreatic Cancer UK Specialist Nurses

Email us at **publications@pancreaticcancer.org.uk** for references to the sources of information used to write this fact sheet.

Give us your feedback

We hope you have found this information helpful. We are always keen to improve our information, so let us know if you have any comments or suggestions. Email us at **publications@pancreaticcancer.org.uk** or write to our Information Manager at the address on the back cover.

Pancreatic Cancer U K

Pancreatic Cancer UK

Westminster Tower
3 Albert Embankment
London SE1 7SP

020 3535 7090 enquiries@pancreaticcancer.org.uk pancreaticcancer.org.uk

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