How are stomach and oesophageal cancers diagnosed?

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The diagnostic tests or scans you have will depend on your symptoms and what is available at your treatment centre. Most tests can be performed on an outpatient basis.

**Endoscopy**

An endoscopy (also called a gastroscopy, upper GI endoscopy or oesophagoscopy) is the most common diagnostic test. In this test a thin, flexible tube with a camera on the end (endoscope) is passed into your throat and oesophagus to examine your upper GI tract.

The doctor will use the endoscope to remove a small amount of tissue (biopsy) if necessary. The tissue will be examined under a microscope to check for signs of disease.

An endoscopy has some risks including bleeding and a perforation (a small tear) in the stomach or oesophagus. These occur in less than 0.1 per cent of cases. If you are concerned talk to your doctor before the test.

**Endoscopic ultrasound**

An endoscopic ultrasound is a test where an endoscope with a probe on the end is inserted down the throat. The probe releases high-frequency soundwaves that echo when they bounce off organs.

During the scan tissue samples may be taken from the stomach, oesophagus and nearby organs. This is to determine whether cancer has spread into the wall of the stomach or oesophagus or to nearby tissue and lymph nodes.

Before these tests you will be asked to fast for about four to six hours; this will allow the doctor to completely inspect your stomach and oesophagus. Most people have a sedative or an anaesthetic so they are comfortable.

It can be unsafe to drive or operate machinery for about 24 hours after an anaesthetic, so arrange for someone to take you home after your test.
Barium swallow and barium meal

Barium swallow and barium meals are types of medical imaging tests used to examine the upper GI tract. You may have one or both of these tests after an endoscopy. Test results help the doctor examine the emptying function of the oesophagus and stomach.

You will be asked to fast for several hours before your test. During either a barium meal or swallow, you will drink a thick, chalky liquid (barium) that shows up white on x-ray pictures. The barium coats your oesophagus and stomach and part of your small bowel. Each test takes about an hour.

During a barium swallow, you will lie on an examination table and x-rays will be taken of your throat and oesophagus. During a barium meal x-ray pictures are taken of your stomach and small bowel. The examination table may be tipped to help the barium flow through your body.

You may be asked to swallow a thin tube during either test. Air will be pumped into your stomach through the tube, spreading the barium coating.

Further tests

Some people may have further tests to determine if the cancer has spread, some are listed here. Your doctor will explain these to you if you need them.

CT scan

A computerised tomography (CT) scan is a procedure that uses x-ray beams to take pictures of the inside of your body. Unlike a standard x-ray, which takes a single picture, a CT scan uses a computer to compile many pictures.

You may have an injection or be asked to drink a special dye before the scan. This dye will help make the scan pictures clearer. It may make you feel flushed or hot for a few minutes. Rarely more serious reactions occur such as breathing difficulties or low blood pressure.

You will be asked to lie still on a table while the CT scanner, which is large and round like a doughnut, slowly moves around you.

A CT scan is painless. The scan itself takes only a few minutes, but preparation time may take 10 to 30 minutes. The dye used for a CT scan is called contrast solution and may contain iodine. If you are allergic to iodine, fish or dyes, let the person performing the scan know in advance.

PET scan

A positron emission tomography (PET) scan is a specialised imaging test available at some hospitals. In this test you are given a radioactive glucose solution. Active cancer cells will have an increased uptake of this solution.

It takes 30 to 90 minutes for the glucose solution to go through the body and during this time you will be asked to sit or lie quietly. Your body will then be scanned for high levels of radioactive glucose.

It takes several hours to prepare for and undergo a PET scan.

Ultrasound

An ultrasound is a non-invasive, painless scan that uses soundwaves to build up a picture of part of your body.
You will usually be asked to fast for about four hours before the scan. A gel is spread over the area where your doctor is scanning (e.g. the abdomen) to conduct the soundwaves. A paddle-shaped device is moved over the area for a few minutes and a picture will be formed on a computer. The sound waves echo when they hit something dense, like an organ or tumour.

The ultrasound usually takes about 15 to 20 minutes.

**Bone scan**

In a bone scan, a small amount of a radioactive liquid will be injected into a vein in your arm. After two to three hours you will have a scan to detect any radioactivity in your bones.

**Laparoscopy**

In a laparoscopy (or keyhole surgery) procedure a thin tube called a laparoscope is inserted into your body through small cuts in your abdomen.

You will be admitted to hospital and given a general anaesthetic. Your abdomen is inflated with gas and the surgeon looks for cancer that has spread into the liver or the lining of the abdomen. If necessary a tissue sample (biopsy) is taken.

A laparoscopy may be done to diagnose cancer or to explore the abdominal area before surgery. This is usually done as part of your investigations but may sometimes be performed immediately before major surgery, during the same anaesthetic.

**Bronchoscopy**

A bronchoscopy is similar to an endoscopy except the thin, lighted tube (bronchoscope) is inserted into the mouth or nose and passed down the trachea (windpipe) to look into the breathing passages.

You may have this test if there is concern oesophageal cancer has spread to the trachea.

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