Bowel Cancer

Information for people at increased risk of bowel cancer

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The information in this brochure is drawn from the evidence-based guideline, *Surveillence and Management of Groups at Increased Risk of Colorectal Cancer*, 2004, published by the New Zealand Guidelines Group.

INTRODUCTION

Bowel cancer is the second most common cancer in both men and women in New Zealand.

Each year more than 2000 new cases are diagnosed and about 1000 people will die from bowel cancer.

This booklet is for people who have an increased risk of developing bowel cancer.

It is recommended that most people who have an increased risk of developing bowel cancer have checks.

THE BOWEL

The bowel is part of the digestive system and is a long tube made up of the small bowel and the large bowel.

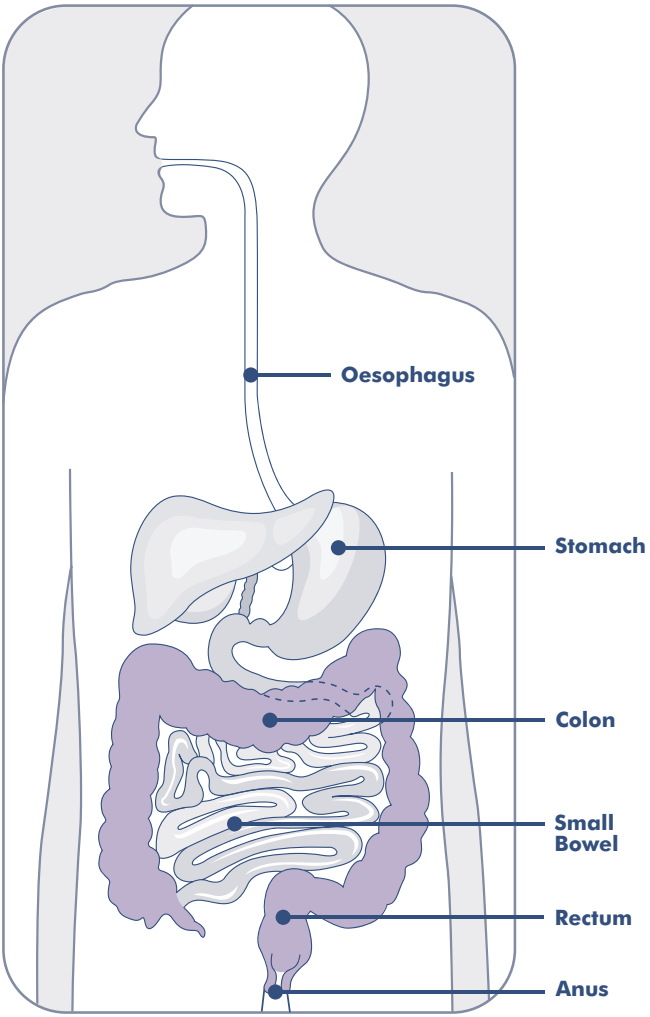
After food and liquid are swallowed they are broken down in the stomach and then passed into the small bowel to be digested. The remains then pass into the large bowel (see Figure 1 on page 2).

The large bowel is much wider than the small bowel and is made up of two parts:

1. the colon (the first 80–100 cms of the large bowel)
2. the rectum (the last 12–15 cms ending at the anus).

The colon removes liquid from the digested food leaving solid waste (poo/faeces/stools), which then passes into the rectum. The rectum holds this solid waste until you go to the toilet and have a bowel motion (poos).

Figure 1: The bowel



Large bowel (which includes the colon and rectum).

BOWEL CANCER

Bowel cancer occurs when cells in some parts of the bowel grow abnormally and form a lump or tumour.

The most common form of bowel cancer occurs in the large bowel, which is made up of the **colon** and **rectum** (see Figure 1 on page 2). It is sometimes called colorectal cancer. Cancer can also occur in the small bowel, but this is rare.

Bowel cancer usually starts in the cells in the lining of the colon or rectum, most commonly inside polyps. Polyps are non-cancerous (benign) fleshy growths that occur on the lining of the inside of the bowel. They become very common as people get older. Up to 30–40% of people will develop polyps at some stage in their life.

There are different types of polyps. Occasionally, a change can take place inside the **adenomatous** type of polyp, and bowel cancer can start developing.

However, the majority of adenomatous polyps will not turn into cancer.

The more adenomatous polyps you have and the larger they are, the greater the chance that they will turn into cancer. It usually takes 5–10 years for abnormal cells inside these polyps to develop into cancer.

Bowel cancer usually grows slowly over a number of years, and as the cancer grows it can start to block the bowel. It can also spread outside the bowel to other parts of the body, such as the liver or lungs.

WHAT ARE THE SYMPTOMS OF BOWEL CANCER?

There are various symptoms that could mean bowel cancer. The most important is bleeding from the bowel.

You should see your doctor if you:

- have bleeding that is not due to haemorrhoids (piles)
- have changes in your bowel habit, which last for more than 6 weeks, eg, constipation, more frequent or looser bowel motions (poos)
- if you have severe symptoms.

Just be aware that these symptoms can be caused by other conditions, such as haemorrhoids.

EARLY DIAGNOSIS AND TREATMENT

If bowel cancer is diagnosed early and treated, then there is a very good chance of the treatment being successful.

Most people who develop bowel cancer will have surgery to remove the cancer.

Some people receive additional treatment, depending on the size of the cancer and whether it has spread.

HOW COMMON IS BOWEL CANCER?

Most people in New Zealand have an average risk of developing bowel cancer. The risk of bowel cancer is very low when you are young, but increases with age (see Figure 2 on page 7). Most cases occur in people over the age of 60 years.

There is about a 1 in 20 chance of developing bowel cancer by the age of 75 years. It is slightly more common in men with about 1 in 16 men and 1 in 21 women developing bowel cancer by this age. Non-Māori men and women have a higher risk of developing bowel cancer than Māori men or women of the same age.

In New Zealand, about 4 in 100 deaths each year are due to bowel cancer. However, many more people die from other cancers, strokes or heart disease (see Figure 3 on page 7).

Figure 2: Average chance of developing bowel cancer by a certain age

Age	Average chance of developing bowel cancer by this age
35 years	Less than 1 in 1000
40 years	1 in 1000
45 years	1 in 1000
50 years	3 in 1000
55 years	6 in 1000
60 years	1 in 100
65 years	2 in 100
70 years	4 in 100
75 years	1 in 20
80 years	1 in 13
85 years	1 in 10
Older than 85 years	1 in 8

Source: New Zealand Health Information Service. *Cancer: New Registrations and Deaths 1998*. Wellington: Ministry of Health, 2002.

Figure 3: Bowel cancer deaths compared to other causes of death in New Zealand

For every **FOUR** people that die from bowel cancer each year in New Zealand, around:	
	TWO die from breast cancer (women only)
	TWO die from prostate cancer (men only)
	FIVE die from lung cancer
	NINE die from strokes
	FOURTEEN die from other cancers
	TWENTY ONE die from coronary heart disease eg, heart attacks

Source: New Zealand Health Information Service. *Mortality and Demographic Data 2000*. Wellington: Ministry of Health, 2004.

WHAT CAN I DO TO REDUCE MY RISK OF BOWEL CANCER?

Although the exact causes of bowel cancer are still uncertain, lifestyle factors may contribute to the development of bowel cancer. You can lower your risk by making healthy lifestyle choices.

Here is some healthy lifestyle advice (see Figure 4 below) for reducing your risk of bowel cancer and many other diseases (eg, heart disease, stroke and diabetes).

Figure 4: Healthy lifestyle choices

Healthy lifestyle choices

- Maintain a healthy body weight.
- Be physically active for at least 30 minutes on most days of the week. It is even better if you increase the 30 minutes to 45–60 minutes and make some of the activity vigorous.
- Eat plenty of vegetables and fruit.
- Choose wholemeal and wholegrain breads, cereals or grain products.
- Choose foods low in salt, sugar and fat, particularly animal (saturated) fat.
- If drinking alcohol, do so in moderation.
- Be smoke free – your GP or QUITLINE (0800 778 778) can help if needed.

I HAVE BOWEL POLYPS

What is my risk of getting bowel cancer?

If you have polyps, the risk of bowel cancer will depend on the number, size and type of polyps.

In a small number of people, a change can happen in the adenomatous type of polyp and cancer can slowly develop.

To reduce your risk of getting bowel cancer, your specialist will usually remove any polyps when you have a colonoscopy to see what kind of polyps you have and test them for any signs of cancer.

The results from these tests may take several days to come back from the laboratory.

If you have adenomatous polyps you should have a follow-up colonoscopy to check your bowel for further polyps that may have formed or for signs of early cancer.

Your specialist will advise you when you should have another colonoscopy.

Even if you are having regular colonoscopies, it is important to report any symptoms to your doctor that suggest the possibility of bowel cancer and make healthy lifestyle choices (see Figure 4 on page 8).

I HAVE HAD BOWEL CANCER

What is my risk of getting bowel cancer again?

Some people who have had surgery to remove part of their bowel to treat bowel cancer are at risk of developing new bowel cancers and having their previous bowel cancer recur.

To lower your risk:

- attend follow-up visits and have regular colonoscopies as advised by your specialist
- even if you are having regular colonoscopies, report any symptoms to your doctor that suggest the possibility of bowel cancer
- make healthy lifestyle choices (see Figure 4 on page 8).

I HAVE INFLAMMATORY BOWEL DISEASE

What is my risk of getting bowel cancer?

If you have inflammatory bowel disease (either ulcerative colitis or Crohn's disease) then you may be at increased risk of developing bowel cancer. The risk depends on how long you have had inflammatory bowel disease and how much of the large bowel is involved.

If your inflammatory bowel disease involves more than the end part of the large bowel **and** you

have had it for longer than 10 years, then the risk of developing bowel cancer is increased.

The chance of having bowel cancer, even if you have had extensive inflammatory bowel disease for 10 years, is small. It is about 2 in 100 people.

This chance increases to about 10 in 100 people by 20 years and 20 in 100 people by 30 years.

Recommended checks

If you have had inflammatory bowel disease for 8–10 years or longer, then you should have a colonoscopy to check how much of the large bowel has been affected by the disease.

Biopsies will be taken from throughout the bowel and sent to the laboratory to make sure that there are no early signs of cancer. Some people with inflammatory bowel disease may already be having regular colonoscopies for other reasons.

If the inflammation involves more than the end part of the large bowel, you should have regular colonoscopies to check for early signs of bowel cancer.

Your specialist will advise you on how often this should occur.

If your inflammatory bowel disease involves only the end part of the large bowel, then you usually do not need to have regular colonoscopies as your risk of developing cancer is low.

Report any symptoms to your doctor that suggest the possibility of bowel cancer. Be sure to make healthy lifestyle choices (see Figure 4 on page 8).

I HAVE A FAMILY HISTORY OF BOWEL CANCER

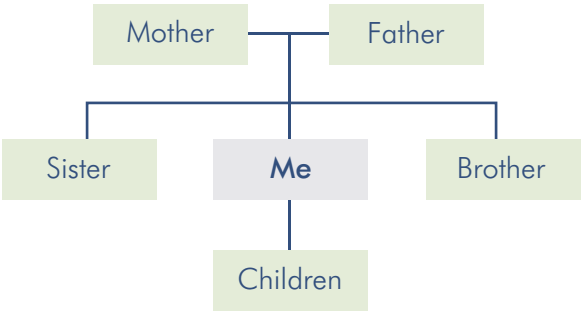
What is my risk?

Although about 20% of people who develop bowel cancer have a family history of bowel cancer, not all people with a family history are at increased risk of getting bowel cancer.

Your risk of cancer generally depends on how closely related you are to the relatives who had bowel cancer, the number of relatives who were affected and their age at diagnosis.

Check to see if you have any first-degree or second-degree **blood** relatives who have had bowel cancer. **First-degree relatives** (see Figure 5 below) are parents, brothers, sisters and children. **Second-degree relatives** are grandparents, aunts, uncles, nieces and nephews.

Figure 5: Family tree for first-degree relatives



Having other relatives with bowel cancer that are more distantly related does not increase the potential risk of developing bowel cancer, except if you have a family history of certain rare inherited bowel cancer syndromes (see page 15).

See which of the following three groups you belong to:

Group 1:
Slightly above average risk for bowel cancer

You are at slightly above average risk if you have one first-degree relative who was diagnosed with bowel cancer at age 55 years or older.

Most people with a family history of bowel cancer will be in this group.

What is my risk?

By the time you are 75 years old, your risk becomes twice that of other people of your age.

However, the overall risk is still quite low, as by this age 90% of people in this group will **not** have developed bowel cancer.

What can I do if I'm at slightly increased risk?

- Report any symptoms of bowel cancer to your doctor.
- Make healthy lifestyle choices (see Figure 4 on page 8).

No specific checks for bowel cancer are currently recommended in New Zealand, but you may wish to discuss this with your family doctor.

Group 2:
Moderately increased risk of bowel cancer

You are at moderately increased risk of bowel cancer if you have:

- one first-degree relative with bowel cancer diagnosed before the age of 55 years OR
- two first-degree relatives on the same side of the family with bowel cancer who were diagnosed at any age. See Group 3 to make sure these relatives do not have certain features that would put you at potentially high risk of bowel cancer.

What is my risk?

Your risk is 3–6 times greater than the **average** risk for your age.

However, by the time someone who is at moderately increased risk of bowel cancer reaches the age of 75 years, most people (about 70–85%) will **not** have developed bowel cancer.

What can I do if I am at moderately increased risk?

- Have a colonoscopy to check your bowel every 5 years from the age of 50 years or from an age 10 years before the earliest age at which bowel cancer was diagnosed in your family. Whichever comes first. If bowel polyps are detected, the time interval advised between colonoscopies may change. These checks are usually recommended until you reach the age of 75 years, depending on your general health.
- Report any symptoms of bowel cancer to your doctor.
- Make healthy lifestyle choices (see Figure 4 on page 8).

Group 3:
Potentially high risk of bowel cancer

You are at potentially high risk of developing bowel cancer if you have any of the following:

- a family history of rare inherited bowel cancer syndromes eg, familial adenomatous polyposis (FAP), hereditary non-polyposis colorectal cancer (HNPCC)
- one first-degree relative PLUS two or more second degree relatives (all on the same side of the family) who were diagnosed with bowel cancer at any age
- two first-degree relatives, OR one first-degree relative PLUS one or more second-degree relatives (all on the same side of the family) diagnosed with bowel cancer, AND one of these relatives:
  - was diagnosed with bowel cancer under the age of 55 years, OR
  - had multiple bowel cancers, OR
  - had cancer in other organs (stomach, pancreas, brain, uterus, ovaries or kidneys), as well as bowel cancer.
- at least one first- or second-degree relative who was diagnosed with bowel cancer who also had multiple bowel polyps
- you developed bowel cancer under the age of 50 years OR if you have one first-degree relative who was diagnosed with bowel cancer under the age of 50 years.

What is my risk?

You may have a 50% or higher chance of developing bowel cancer during your lifetime.

Continued...

What should I do if I am in this high-risk group?

- Be referred to either a clinical genetic service, or a familial bowel cancer registry (see back cover for contact details).

  These organisations can make a more accurate assessment of your and other family members' risk of bowel cancer.

  Rare bowel cancer syndromes that run in some families may need to be confirmed with a blood test that looks for the genetic (DNA) abnormalities that cause these syndromes.

  A familial bowel cancer registry keeps a confidential record of family members who are at increased risk to coordinate regular bowel checks for those at highest risk.
- Be referred to a bowel cancer specialist to discuss a plan for regular colonoscopy checks of your bowel for polyps and cancer.
- Have regular colonoscopies to check your bowel.
- See your doctor if you have any symptoms of bowel cancer.
- Make healthy lifestyle choices (see Figure 4 on page 8).

TESTS TO CHECK FOR BOWEL CANCER

There are a number of ways to check the inside of the bowel for signs of bowel cancer or conditions that may lead to the development of bowel cancer.

Colonoscopy

Colonoscopy is the recommended test for those at moderate and potentially high risk of bowel cancer. A small flexible tube or hose with a microscopic telescope attached is passed through your back passage (anus).

This enables the specialist to look inside your large bowel all the way from your rectum to the beginning of the colon.

During this examination the specialist will check for bowel diseases, eg, polyps, inflamed tissue or early signs of cancer.

Colonoscopy is generally a safe procedure, but there are risks. Although rare, these risks include bleeding, perforation (a hole in your bowel), infection or side effects from the sedation or pain medication. Also, there is a small risk of heart or lung problems, particularly in people with certain medical conditions.

Before the colonoscopy you will be given a laxative drink to help empty out your bowel. This is so the specialist can get a better view of the insides of your bowel. It normally takes about 30 minutes for the colonoscopy to be carried out.

If cancer, polyps or inflamed tissue are seen, the specialist can take a biopsy (a small piece of tissue), which is sent to the lab for testing.

Even though polyps are usually non-cancerous, they are often removed, as occasionally cancer can develop within polyps. Also follow-up colonoscopies are often advised if adenomatous polyps are detected.

Sedation and pain medication are given to reduce the discomfort of the colonoscopy. You will be conscious, but sleepy. People often don't remember much about the procedure.

You can expect to stay at the hospital for about 1–2 hours until the sedation has worn off. You will need to arrange for someone to take you home.

Routine follow-up examinations by colonoscopy, after previous bowel disease (eg, cancer or polyps or because of a family history of bowel cancer) are not generally advised after 75 years of age.

This is because the time taken for new polyps or cancer to develop is longer than the average time left to live. The risk of complications from the test increases after 75 years of age.

Colonoscopy is still often advised as the test to find out the cause of new bowel bleeding or symptoms in people over this age.

Sigmoidoscopy

Sigmoidoscopy involves inserting a small tube with a microscopic telescope through your back passage (anus) so that the doctor can look at the lower part of your large bowel to check for signs of cancer, polyps or inflammation. The sigmoidoscope is not as long as a colonoscope and therefore cannot see as much of the large bowel.

Barium enema

A barium enema involves a visit to an x-ray (radiology) department. A small tube is put through your back passage and a dye (barium) is poured into your bowel.

You are then rolled around in different directions to coat the inside of your bowel with the dye. X-rays are then taken to look for certain signs that may indicate any abnormalities, such as bowel cancer or polyps. Laxatives are given beforehand to empty the bowel to enable a better view.

Sigmoidoscopy is often done by your referring doctor, either before or after a barium enema, because it can be difficult to completely examine the end of the bowel during a barium enema examination.

Both a sigmoidoscopy and a barium enema can cause some discomfort.

They rarely cause any serious complications, but they can miss a small number of cancers or polyps.

Virtual colonoscopy

This is a new test that involves a CT/CAT (Computerised Axial Tomography) scan to check your bowel for signs of cancer.

It has the advantage of being a test that does not need to have a telescope passed around your bowel.

However, a small tube still needs to be put into your back passage (anus) to fill the bowel with air and you will still need to take a laxative beforehand.

It can miss some cancers and polyps that a standard colonoscopy would have detected.

Further research and evaluation is necessary before it can be recommended as a routine investigation.

FOBT (Faecal occult blood test)

This test is sometimes used to check for blood in a bowel motion that cannot be seen by the naked eye.

A positive test may be due to bleeding from a cancer in your bowel, but you would need further tests to find out.

An FOBT can be unreliable as a check for people who have no symptoms. For example:

- it can miss 50% of all bowel cancers
- most people with a positive test will not have cancer (eg, some foods can trigger a false-positive result).

FOBT is not generally recommended as a check for those at increased risk.

CONTACT DETAILS

Clinical Genetic Services

Northern Regional Genetic Services
(Auckland City Hospital)
Free phone 0800 476 123

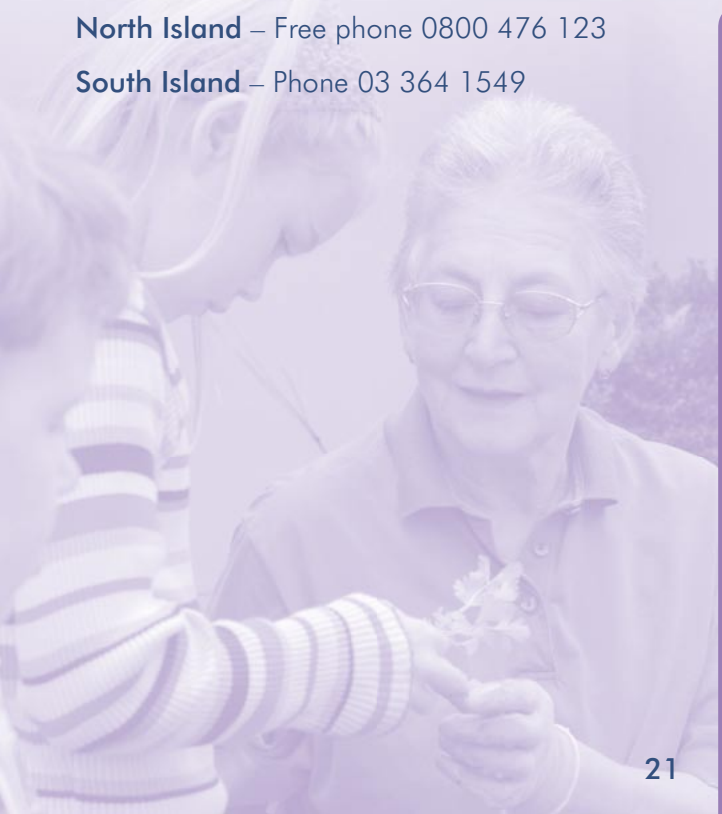
Central Regional Genetic Services
(Wellington Hospital)
Free phone 0508 364 436

Southern Regional Genetic Services
(Christchurch Hospital)
Free phone 0508 364 436

Familial Bowel Cancer Registries

North Island – Free phone 0800 476 123

South Island – Phone 03 364 1549



FURTHER INFORMATION

More information on bowel cancer can be obtained from:

- your GP or specialist
- your local Cancer Society (listed in phone book) or Cancer Society of New Zealand website (www.cancer.org.nz)
- a Cancer Society oncology (cancer) information nurse (0800 800 426)
- the Clinical Genetic Service (Northern Region 0800 476 123, Lower North Island and South Island 0508 364 436)
- visit the New Zealand Guidelines Group website (www.nzgg.org.nz), which has the detailed guideline – *Surveillance and Management of Groups at Increased Risk of Colorectal Cancer*.

Copies of this booklet can be:

- ordered from Wickliffe: (04) 496 2277 Order number HP: 79998
- freely downloaded from the NZGG website (www.nzgg.org.nz).

NEW ZEALAND GUIDELINES GROUP
Promoting Effective Health and Disability Services

National Screening Unit

Cancer Society

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