

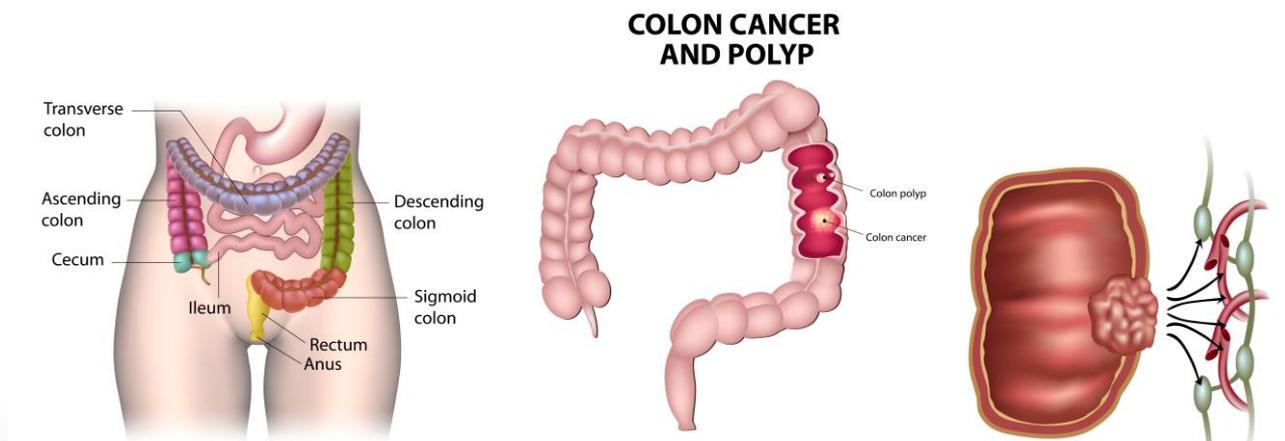
## Bowel cancer

### *What is bowel cancer?*

Bowel cancer, also known as colorectal cancer, is a term used for a tumour that starts in the colon (large bowel) or the rectum (last 6 inches of the colon closest to the anus). These cancers can also be referred to separately as colon cancer or rectal cancer, but they have many features in common.

Most cases of bowel cancer develop slowly over several years, beginning as small, noncancerous growths called polyps on the inner lining of the colon or rectum. Over time, these polyps can become cancerous and grow into the wall of the colon or rectum. Cancer cells can then invade blood vessels or the lymph system, and travel to nearby lymph nodes or to distant parts of the body, such as the liver or lungs. Once bowel cancer has spread to distant parts of the body it is called metastatic bowel cancer.

### Anatomy of the lower digestive system (a), polyps in the colon (b) and (c) metastatic bowel cancer



## *Who is at most risk of getting bowel cancer?*

New Zealand has one of the highest rates of bowel cancer in the world. In 2011, bowel cancer was the most commonly diagnosed cancer, with more than 3000 new cases, and the second highest cause of death from cancer, with approximately 1200 New Zealanders dying from the disease each year.<sup>1</sup>

Bowel cancer is more common as you get older, particularly from the age of 50, but young adults can also develop the disease. Your risk of bowel cancer is increased if you have a personal history of colorectal polyps or inflammatory bowel disease, or someone in your family has these conditions. If this is the case, you should talk to your doctor about getting screened for bowel cancer before the age of 50.

Several lifestyle factors also increase the risk of bowel cancer:

- Physical inactivity
- A diet high in red and processed meats and low in fruit, vegetables and whole grains
- Obesity
- Smoking and heavy alcohol use.

## *How is bowel cancer diagnosed?*

### *Signs and symptoms?*

Many people with bowel cancer experience no symptoms in the early stages of the disease. Symptoms usually only appear with more advanced disease.

Symptoms of bowel cancer include:

- A persistent change in your bowel habits, including diarrhoea or constipation
- Rectal bleeding or blood in your stool
- Persistent abdominal discomfort, such as cramps, gas or pain
- A feeling that your bowel doesn't empty completely
- Weakness or fatigue
- Unexplained weight loss

It is important to get any possible symptoms of bowel cancer checked by a doctor.

Regular screening can find bowel cancer early before the onset of symptoms, when it is most likely to be curable. A Faecal Occult Blood Test (FOBT), which can detect very small amounts of blood in your stool, is a simple option used to screen for bowel cancer. If blood is detected in your FOBT or you have any symptoms of bowel cancer, your

doctor will generally recommend that you have colonoscopy to find the cause. During this test, a doctor looks at the entire length of the colon and rectum using a colonoscope, which is a thin, flexible tube attached to a small video camera and display monitor. If any suspicious areas are found, the doctor can pass surgical tools through the tube to take tissue samples (biopsies) for analysis and diagnosis.

In some people, screening can prevent bowel cancer altogether by allowing colorectal polyps to be found and removed before they turn into cancer. People under the age of 50 with a higher risk of bowel cancer (e.g. family history, polyps, irritable bowel disease) are usually screened with colonoscopy.

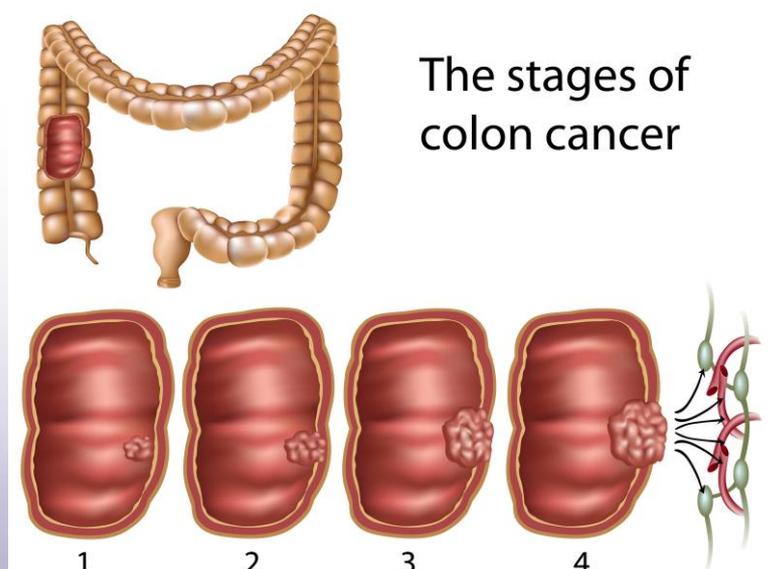
## *How is bowel cancer staged?*

Once you've been diagnosed with bowel cancer, your doctor will order tests to determine the extent (stage) of your cancer. Staging helps determine what treatments are most appropriate for you.

The stages of colon cancer are:

- Stage 0 – the cancer has not grown beyond the inner lining of the colon or rectum.
- Stage I – the cancer has grown through the innermost lining of the colon or rectum, but hasn't spread beyond the colon wall or rectum.
- Stage II – the cancer has grown into or through the wall of the colon or rectum, but hasn't spread to nearby lymph nodes.
- Stage III – the cancer has entered nearby lymph nodes, but isn't affecting other parts of your body yet.
- Stage IV – the cancer has spread to other parts of your body, most often the liver.

### Bowel cancer stages



## *How is bowel cancer treated?*

This section provides an overview of treatments for bowel cancer. Remember each person is different and your doctor will discuss with you the best treatment options for the particular type of cancer you have.

The type of treatment your doctor recommends will depend largely on the stage and site of your cancer. The main types of treatment that can be used for bowel cancer are:

- Surgery
- Radiation therapy
- Chemotherapy
- Biologic therapies

For bowel cancers that have not spread to distant sites, surgery to remove the cancer is usually the main treatment. Chemotherapy and/or radiation therapy can also be given before surgery (neoadjuvant treatment) to shrink the tumour or given after surgery (adjuvant treatment) to kill any cancer cells that were not removed by the surgery. In patients with colon cancer that has spread to nearby lymph nodes, chemotherapy is usually given after surgery to help reduce the risk of the cancer coming back. Radiation therapy is rarely used in early-stage colon cancer, but in patients with rectal cancer that has penetrated through the wall of the rectum or spread to nearby lymph nodes, chemotherapy is typically used along with radiation therapy before or after surgery.

Once bowel cancer has spread to a distant part of the body, it is unlikely to be curable. If the cancer is too widespread to try and remove it with surgery, chemotherapy is the main treatment option. In patients with metastatic bowel cancer, biologic therapies, also known as targeted treatments, can be given in combination with chemotherapy to help control the cancer and increase survival time (on average by 2 to 5 months compared to chemotherapy alone). Standard chemotherapy kills cells that are dividing. Because cancer cells divide more quickly than healthy cells, chemotherapy has most effect on these cells, but this form of treatment also kills some healthy cells, causing side effects e.g. hair loss. Biologic therapies work differently to standard chemotherapy, because they are able to target cancer cells specifically, and mostly leave healthy cells alone. Biologic therapies are often used with chemotherapy, but they can also be continued by themselves if chemotherapy is no longer working or if the chemotherapy can't be tolerated.

Avastin® (bevacizumab) is a biologic anti-cancer agent that is approved in New Zealand for use in combination with fluoropyrimidine-based chemotherapy to treat metastatic bowel cancer.

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## Summary of different treatments used to treat bowel cancer

Site / Spread	Early Stage Limited to Bowel	Local spread involving lymph nodes	Distant metastases	Very advanced metastatic disease
Colon	Surgery	Surgery / Adjuvant Chemotherapy	Surgery, Chemotherapy, Biologic therapies, Radiotherapy	Managed by oncology and specialist palliative care teams  Symptoms managed using medications, short doses of radiotherapy and chemotherapy. Surgery
Rectum (back passage)	Options will vary according to stage and location: Neo-adjuvant radiotherapy, and or chemotherapy, surgery. Adjuvant radiotherapy, and or chemotherapy		Neo-adjuvant radiotherapy & chemotherapy, surgery. Adjuvant radiotherapy chemotherapy and biologic therapies	

### References

1. Ministry of Health. 2014. Cancer: New registrations and deaths 2011. Wellington: Ministry of Health. Available from: <http://www.health.govt.nz/system/files/documents/publications/cancer-new-registrations-deaths-2011-v4sept14.pdf>. Accessed April 2015.

## *Avastin Consumer Panel*

Avastin<sup>®</sup> (bevacizumab), 100 mg/4mL and 400 mg/16 mL vials, is a **Prescription Medicine** used to treat metastatic (spreading) colorectal, kidney, breast, brain, lung and ovarian cancers.

**Do not use Avastin if:** you have had an allergic reaction to Avastin, any of its ingredients or other antibodies, or if you have been coughing or spitting up blood.

**Tell your doctor if:** you are pregnant or breast-feeding, or plan to become pregnant or breast-feed; you have any other health problems, especially the following: inflammation of the bowel or stomach ulcers, high blood pressure, a history of blood clots or stroke, bleeding problems, bleeding in the lungs or coughing or spitting up blood, low white blood cell counts, you have/ had a fistula, or have a history of diabetes; you have had major surgery in the last 28 days or a wound that has not healed properly; you have had a blocked lung artery (pulmonary embolism); you have heart disease; you have received anthracyclines (e.g. doxorubicin) for cancer, or radiotherapy to your chest; you are 65 years of age or older, or you are taking any other medicines.

**Tell your doctor immediately or go to your nearest Accident and Emergency Centre if you notice any of the following:** severe body or stomach pain or cramps; severe headache; severe diarrhoea, nausea and vomiting; coughing or spitting up blood; blood clots in the veins of the legs; pain and/or swelling in the lower legs, feet or hands; severe bleeding or problems with your wounds healing after surgery; seizures; confusion; sleepiness/drowsiness or fainting; abscesses (pus-filled sores); severe infection with high fever, chills, headache, confusion and rapid breathing; feeling of numbness or tingling in feet or hands; dry mouth with thirst and/or darkened urine; increased heart rate; shortness of breath; symptoms of an allergic reaction which may include shortness of breath, wheezing or difficulty breathing, swelling of the face, lips, tongue or other parts of the body, or rash, itching or hives on the skin. **Possible common side-effects may also include:** high blood pressure (symptoms include, headache, dizziness, ringing in the ears, tiredness, blurred vision); body pain, tiredness/ weakness; diarrhoea, constipation or rectal bleeding; sore mouth or mouth ulcers; loss of appetite, being thirsty; shortness of breath; runny, blocked or bleeding nose; dry, scaling or inflamed skin, change in skin colour; taste changes; blurred vision or other eye problems; dizziness; headache; frequent infections with symptoms such as fever, chills or sore throat; changes in your voice or difficulty speaking.

Avastin has risks and benefits. Ask your oncologist if Avastin is right for you. Use strictly as directed. If symptoms continue or you have side effects, see your healthcare professional. For further information on Avastin, please talk to your health professional or visit [www.medsafe.govt.nz](http://www.medsafe.govt.nz) for Avastin Consumer Medicine Information.

**Avastin is not funded by PHARMAC. You will need to pay the full cost of this medicine. A prescription charge and normal oncologist fees may apply.**

Consumer panel dated 03 November 2014 based on CMI dated 02 October 2014.

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