

# Colorectal Cancer and Biomarker Testing

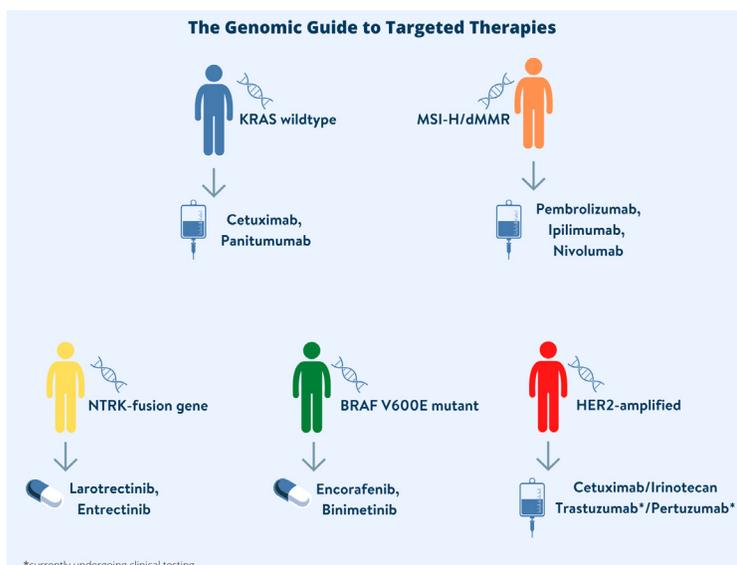
## What Patients Need to Know

### What is the right care for you?

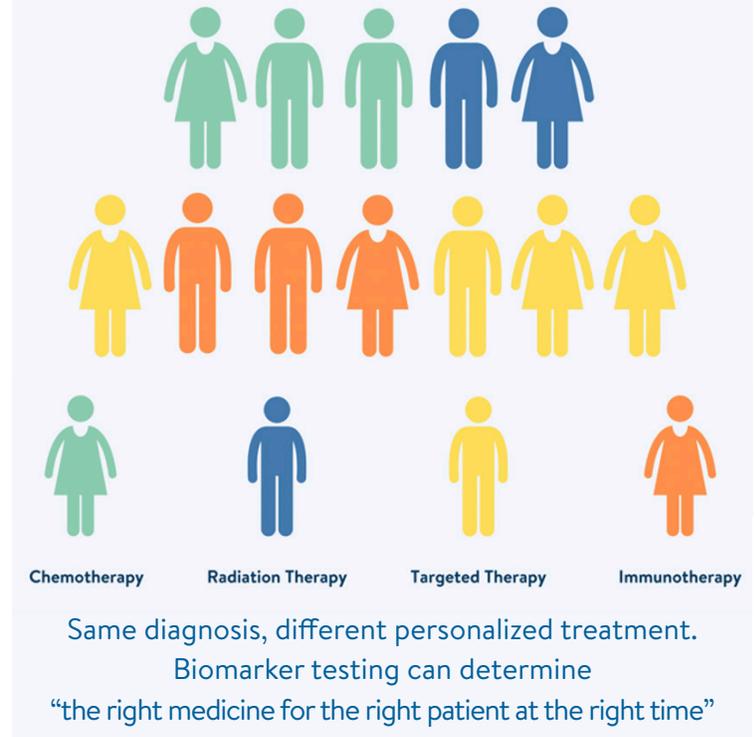
There have been considerable advances in the treatment of colorectal cancer over the past 15 years. Certainly, treating colorectal cancer today is different than it was a few decades ago. In the past if you had colorectal cancer, you might have received the standard therapy used for all people with colorectal cancer. We now understand that two people with colorectal cancer may have very different kinds of tumours, leading them to different treatment options.

Today, biomarker (short for biological markers) testing allows health care providers to uncover specific genetic and molecular characteristics which can help them refine and provide a specific care plan for you. The molecular information can be used to:

- Establish whether a targeted treatment is a good option for you,
- Make decisions about healthy habits, earlier screening tests, and other steps towards prevention,
- Make decisions on testing your family members for possible hereditary syndromes.



More detailed information can be found at:  
<https://www.colorectalcanccanada.com/colorectal-cancer/diagnosis/>



Chemotherapy      Radiation Therapy      Targeted Therapy      Immunotherapy

Same diagnosis, different personalized treatment.  
 Biomarker testing can determine  
 “the right medicine for the right patient at the right time”

### What are biomarkers?

Biomarkers are molecules found in body tissues and fluid, including tumor tissue and blood. Biomarker testing involves the collection of a sample of your tumor, either tissue biopsy or liquid biopsy (blood sample test), that will later be sent to a certified pathologist. There are different categories of biomarkers that give different information about cancer. Biomarkers in colorectal cancer that can inform treatment or care decisions include RAS, BRAF, EGFR, HER2, NTRK, CEA, TRK fusions, TMB and MSI-H/dMMR.

The understanding of the molecular pathways that drive colorectal cancer continues to evolve and the discovery of new biomarkers and corresponding therapies is changing the colorectal cancer molecular testing and treatment landscape. The most common types of testing for biomarkers include: single-gene testing, IHC testing, qPCR testing and next-generation sequencing. Biomarker testing will help ensure you receive a personalized treatment plan that is right for you.

START BY ASKING YOUR DOCTOR WHAT BIOMARKERS THEY ARE TESTING FOR THAT WILL PROVIDE THEM WITH THE RIGHT INFORMATION ABOUT YOUR CANCER AND HELP PLAN YOUR TREATMENT.

## When should biomarker testing be done?

It's important that biomarker testing required for your personal situation occurs as early as possible to guide your care and treatment plan. This generally depends on the biomarkers being tested and the cancer stage you are at:



If you are diagnosed with stage II, III, or IV colorectal cancer, your doctor will test certain biomarkers such as CEA during routine follow-up visits. This will confirm whether the cancer has returned, or can offer insight into treatment effectiveness, and guide further treatment decisions.



If you are diagnosed with stage IV metastatic colorectal cancer, you should be tested for at least three predictive biomarkers: RAS, BRAF, and MSI/dMMR. Information about these specific biomarkers will guide treatment decisions and offer insight into how effective treatments will be for you. Testing for other biomarkers may also inform treatment options.

## What treatment is best for me?

The most common treatment options currently available in Canada for colorectal cancer are [surgery](#), [chemotherapy](#), [radiation therapy](#), [targeted therapy](#), and [immunotherapy](#). The type (colon and/or rectal), location, stage of your cancer, the biomarkers expressed in your tumour and your general health will determine which treatment is best for you. Understanding your treatment options is important so that you can participate in making informed decisions together with your doctors.

Planning cancer treatment can take time. It is always recommended to get a second opinion before embarking on any treatment plan.

### You will need to find out:

- The treatment choices available to you at diagnosis
- How cancer and the specific treatment you will receive may impact your daily life and that of your family?
- The side effects of your treatment and how to eliminate or reduce their impact
- The possibilities of recurrence of the cancer and how to minimize the possibility of recurrence

FOR MORE INFORMATION ON BIOMARKER TESTING, PLEASE VISIT OUR WEBSITE:

[colorectalcancercanada.com](http://colorectalcancercanada.com)