

# Understand Your Risk for Colorectal Cancer

Cancer refers to the uncontrolled division and growth of cells in the human body. The growth, or tumour, can be caused by mutations in a person's DNA. These mutations can also be passed down from parents to children.

Colorectal cancer is hereditary. Therefore, genetic screening is recommended<sup>1</sup> for people:

- with a family history of colorectal cancer;
- with a family history of breast, ovarian, and prostate cancers;
- having increased risk related to lifestyle: heavy drinkers, smokers, being overweight, having low physical activity.

From the Dtect Colon+ results, your doctor could recommend regular health monitoring if you received a positive screening result.

## Benefits of Dtect Colon+

### → Validated Technology

Dtect Colon+ is run on one of the most accurate genetic profiling platforms available. It screens for disease risks by analysing genetic variants across relevant genetic markers.

### → Comprehensive Results

The results are reported in a precise and concise format, allowing you to easily interpret the analysis. The Dtect Colon+ report highlights the risk factors, and helps doctors to prescribe more suitable and effective treatment.

### → Affordable Pricing

Dtect Colon+ provides you with a quality genetic analysis at an affordable price.

## Limitations

Genetic screening can indicate whether an individual has a predisposition, or is at increased likelihood of having an inherited disease or disorder. However, it cannot indicate if the individual will show symptoms, how severe the symptoms will be, or whether the disease or disorder will progress over time.

A negative test result does not mean that an individual will not get the inherited disease or disorder because Dtect Colon + is designed to detect only highly significant genetic markers which have been documented during medical research. Environmental and lifestyle factors also play a role in the development of inherited diseases and disorders.

## Other Products

**Dtect Cardio & Metabolic** evaluates markers associated with cardiovascular and metabolic diseases.

**Dtect Child** detects inherited genetic illnesses or developmental disorders in children.

**Dtect Colon+** screens for risk of colorectal cancer, using ACMG guidelines.

**Dtect Derma** screens for traits or conditions that affect skin youthfulness and premature ageing.

**Dtect Fertility** screens for genetic causes of infertility.

**Dtect NPC+** screens for risk of nasopharyngeal, and other head and neck cancers (HNCs).

**Dtect Onco** screens for risk of 32 types of familial cancers.

**Dtect PGx** screens for risk of adverse drug reactions and drug responses.

**Dtect Prostate+** screens for risk of prostate cancer, using ACMG guidelines.

**Dtect Wellness** screens for 46 traits or conditions that affect health and wellness.



Colon+

# Genetic Screening for Colorectal Cancer

## Your First Step Towards Total Health and Vitality



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# Manage Your Health With Dtect Colon+

Dtect Colon+ is a genetic screening test. This test screens your DNA for markers that are linked to inherited risk factors for colorectal cancer<sup>1</sup> (CRC). The markers serve as 'red flags' in your DNA and can indicate if you are predisposed to CRC.



## DID YOU KNOW?

CRC is the third most commonly diagnosed cancer in males and the second in females, with 1.65 million new cases and almost 835,000 deaths in 2015 globally<sup>2</sup>. The general population has an approximately 5% lifetime risk of developing CRC. Most CRC cases develop sporadically.



Mortality rates from CRC have declined progressively since the mid-1990s. This improvement is due to detection and removal of colonic polyps, detection of CRC at an earlier stage, and more effective prevention<sup>3</sup> via lifestyle modifications among population with increased genetic risk.

# Colorectal Cancer Risk Factors

Colorectal cancer (CRC) is the overgrowth of the cells lining the inner walls of the colon and rectum. The cancerous transition of cells is caused by DNA damage that is accumulated over time, therefore it is diagnosed after the age of 40. The most important known risk factors<sup>4</sup> for CRC are both inherited genetics and environmental (lifestyle factors which includes diet, habits, and physical activity).

Genetics presence of pre-existing DNA mutations <sup>1</sup> in genes related to CRC	Familial Adenomatous Polyposis (FAP) caused by germline mutations in the adenomatous polyposis coli (APC) gene.		APC	
	Lynch Syndrome (hereditary nonpolyposis colorectal cancer [HNPCC]) caused by defects in one of the DNA mismatch repair (MMR) genes.		MLH1	MSH2
	Non-Lynch Syndrome, which included mutations in high-penetrance genes.		MSH6	PMS2
Lifestyle			MUTYH	POLD1
			POLE	TP53
	Obesity <sup>5-6</sup>	Alcohol consumption <sup>9</sup>	Lack of physical activity <sup>16-18</sup>	Age
	Smoking <sup>7-8</sup>	Consumption of processed foods (e.g. red meats) & low-fibre diet <sup>10-15</sup>	Radiation <sup>19-20</sup>	Gender

Your Dtect Colon+ test results can assist and support your doctor's medical diagnosis, and help with the management of genetic diseases across the family. Markers for disease risks are likely to be shared by first-degree relatives (siblings, children, parents). Your doctor could advise clinically asymptomatic relatives of patients to undergo screening. More importantly, your doctor could advise you on treatment decisions for colorectal cancer sooner, or you can be better prepared to make lifestyle and dietary changes to lower your health risks for colorectal cancer when possible.

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