



Microsatellite instability (MSI) testing

What is Microsatellite instability?

Genes which repair mutations in DNA are known as mismatch repair genes. There are four different mismatch repair genes which are responsible for correcting mutations in the DNA. If one of these four mismatch repair genes is mutated, small errors in the DNA remains unrepaired. These errors lead to an expansion or reduction in repetitive sequences in the DNA which is termed microsatellite instability (MSI). If a person is born with a mutation in one of the four mismatch repair genes (ie. the mutation is present in all their body cells), this results in Lynch syndrome. The presence of MSI indicates a defect in one of the mismatch repair genes.



Lynch syndrome is the most common inherited form of colon cancer, accounting for 5% of all colon cancers.

Why get tested?

To assess whether you have the most common inherited form of colorectal cancer, known as hereditary non-polyposis colon cancer (HNPCC). HNPCC is commonly referred to as Lynch syndrome.

When to get tested?

If you have colorectal cancer diagnosed at less than 50 years of age.

If one or more relatives have colorectal cancer and/or other cancers associated with Lynch syndrome, especially if they are less than 50 years of age.

Sample Required:

A sample of tumor tissue obtained through a biopsy procedure

Turnaround time :

8-10 days

How the test is done?

A tumor tissue sample is collected from patient and the DNA is extracted. Further gene analysis is done using Molecular biology techniques to detect the mutations.

Why to choose Greenarray?

- Greenarray ensures high accuracy and low false positive rate with the use of advanced sequencing techniques.
- Safe and reliable

References:

- Jang E, Chung DC. Hereditary colon cancer: lynch syndrome. *Gut Liver*. 2010;4(2):151-160. doi:10.5009/gnl.2010.4.2.151
- Boland CR, Goel A. Microsatellite instability in colorectal cancer. *Gastroenterology*. 2010;138(6):2073-2087.e3. doi:10.1053/j.gastro.2009.12.064

About Green Array

Green Array is a molecular diagnostic company. We offers diagnosis of infectious diseases, genetic testing and healthcare information to improve health and wellness. Our goal is to provide high quality affordable and accessible services.