

# TMB

## WHO SHOULD HAVE TMB BIOMARKER TESTING?

Guidelines for the testing of tumor mutational burden in colorectal cancer (bowel cancer) vary around the world. Talk to your medical team about whether TMB testing could benefit you.

## WHAT IS TMB?

TMB is a measurement of how many genetic changes (mutations) are found in the genes of your tumor cells in a specific amount of DNA (a megabase). These mutations can be in any genes present in your tumor cells.

## HOW IS TMB TESTED? HOW ARE THE RESULTS REPORTED?

TMB is tested in a biopsy sample of your tumor (tumour) using NGS (next-generation sequencing). Your results will be reported as TMB-Low (fewer than 10 mutations per megabase) or TMB-High (more than 10 mutations per megabase).

## WHAT DO MY TMB RESULTS MEAN FOR ME? HOW DO THEY IMPACT MY TREATMENT?

### If you have TMB-Low


- Your treatment will be guided by other biomarker testing and clinical response.
- Immunotherapy may be ineffective in TMB-Low colorectal cancers unless they are also MSI-High.

### If you have TMB-High

- You may benefit from immunotherapy (for example pembrolizumab, nivolumab).
- Immunotherapy may be effective in TMB-High colorectal cancers even if they have MSS (microsatellite stability).
- In colorectal cancers with MSI-High (microsatellite instability high), TMB-High predicts a better response to immunotherapy.
- In colorectal cancers with MSS, TMB-High is associated with better overall survival.

## TMB-H + MSS

**IMMUNOTHERAPY  
MAY BE EFFECTIVE  
IN TMB-HIGH  
CANCERS, EVEN  
WHEN THEY HAVE  
MICROSATELLITE  
STABILITY.**



Biomarker testing can give you and your medical team valuable knowledge about your cancer and help guide your treatment choices. For more information about colorectal cancer biomarkers, please visit [knowyourbiomarker.org](https://knowyourbiomarker.org) and talk to your medical team.