



# **REVIEW ON SCREENING AND PREVENTION OF COLORECTAL CANCER**

*Essay*

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# استعراض على الكشف المبكر والوقاية من سرطان القولون والمستقيم

## رسالة

توطئة للحصول على درجة الماجستير في علاج الأورام و الطب النووي

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# ABBREVIATIONS

<b>ACS</b>	American Cancer Society
<b>APC</b>	Adenomatous Polyposis Coli
<b>ASR</b>	Age Standardized Ratio
<b>BRAF</b>	B Rapidly Accelerated Fibrosarcoma
<b>CDC</b>	Center of Diseases Control and prevention
<b>CIMP</b>	CpG Island Methylator Phenotype
<b>CIN</b>	Chromosomal Instability
<b>CRC</b>	Colorectal Cancer
<b>CTC</b>	Computed Tomographic Colonography
<b>DALMs</b>	Dysplasia Associated Lesion or Mass
<b>EGFR</b>	Epidermal Growth Factor Receptor
<b>EpCAM</b>	Epithelial Cell Adhesion Molecule
<b>FAP</b>	Familial Adenomatous Polyposis
<b>FIT</b>	Fecal Immunochemical Test
<b>FS</b>	Flexible sigmoidoscopy
<b>gFOBT</b>	guaiac Fecal Occult Blood Test

<b>HNPCC</b>	Hereditary Non-Polyposis Colorectal Cancer
<b>hMLH1</b>	human mutL homolog 1
<b>hMSH2</b>	human mutS homolog 2
<b>hMSH6</b>	human mutS homolog 6
<b>hPMS1</b>	human postmeiotic segregation 1
<b>hPMS2</b>	human postmeiotic segregation 2
<b>IRA</b>	Ileorectal Anastomosis
<b>KRAS</b>	Kirsten RAt Sarcoma viral oncogene homolog
<b>MAP</b>	MUTYH-Associated Polyposis
<b>MMR</b>	Mismatch Repair
<b>MSI</b>	Microsatellite Instability
<b>NCCN</b>	National Comprehensive Cancer Network
<b>SEER</b>	Surveillance, Epidemiology and End Results Reporting
<b>SSA/P</b>	Sessile Serrated Adenomas or Polyps
<b>USPSTF</b>	U.S. Preventive Services Task Force

# INTRODUCTION

Colorectal cancer is one of the most common cancers in males and females worldwide. The screening and prevention of colorectal cancer was established long time ago, as it was one of the most known cancers regarding etiology and diagnosis.

Removal of potential malignant lesions results in significant decrease of colorectal cancer incidence. Many tools have been developed for that purpose. There are many recommended guidelines for screening depending on different studies and experiences.

In this review, we will give brief data on colorectal cancer epidemiology and risk factors.

In order to understand colorectal cancer we will mention in details the genetics as that will help in determining which category of patients should be screened, the age of screening and the management.

Also, different tools of screening will be mentioned and the different recommendations around the world for average risk patients and high-risk patients as well.