



# COLON CANCER

FACTS, RISK FACTORS, AND  
SCREENING FOR MILITARY VETERANS.

## KEY FACTS

- **Second** most commonly diagnosed cancer in American population.
- The chances of being diagnosed with breast cancer during ones lifetime is approximately **1 in 24 in American population, and**
- The average age at diagnosis is 68-72 years (civilian), but military members and veterans are being **diagnosed as young as 33 years.**
- Over **13,000 colon cancer diagnoses** were made on active duty between 2001 to 2021, with rates highest in the **Army**, followed by the Air Force, Navy and Marine Corps.

## TESTS AVAILABLE FOR COLORECTAL CANCER

- Colorectal cancer screening routinely begins at age 45 unless symptoms or risk factors are present.
- **At-home tests:**
  - FIT (12 months)
  - FBOT (12 months)
  - Cologuard DNA (1-3 years)
- **Provider-ordered tests:**
  - Anemia (blood draw)
  - CEA Antigen (blood draw)
  - Colonoscopy (2-10 years)

These at-home tests can range from \$60 to \$600 out-of-pocket, but are covered by insurance in those over age 45 or at an increased risk.

## COLORECTAL CANCER OVERVIEW

Colon cancer is one of the most frequently occurring cancers in the United States. As noted in the picture below, the **colon is highly vascularized** (high blood supply and flow), meaning if cancer does occur it has the ability to spread quickly through the blood stream, making it more difficult to treat and control.

Also, when a tumor/mass occurs in the colon, it can block, flow and signal the body to produce and form more localized blood vessels (angiogenesis) which is a large reason for bleeding in colorectal cancer. Note the bleeding variations below.

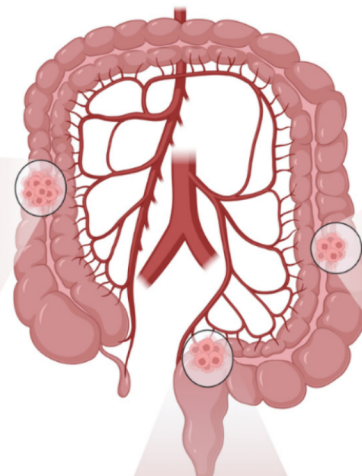
Those with history of irritable bowel syndrome (IBS), Crohn's disease, and ulcerative colitis are at an increased risk for CRC.

## SYMPTOMS OF COLORECTAL CANCER

Signs and symptoms **VARY** based on which part of the colon and/or rectum has been affected. And in certain cases, colon cancer may not present any symptoms or reflect other organ systems such as the urinary system. Below are the areas most often impacted as well as their related symptoms.

### ASCENDING COLON

- 20% of Colon Cancers
- Right side of stomach
- Could be **ASYMPTOMATIC**
- Weight loss
- Iron deficiencies
- Anemia (from blood loss)
- "Palpable" mass felt
- Seen in genetically-related cancers such as Lynch Syndrome



### DESCENDING COLON

- 75% of Colon Cancers
- Left Side of stomach
- Dark-red blood **MIXED** with stool
- Increased bowel frequencies
- Bloating and gas
- Abdominal pain
- Possible mucus in stool

### RECTUM

- Deep red blood on **SURFACE** of stool
- Feeling as if you need to pass stool and sensation of incomplete bowel movement.
- Abdominal pain

# COLORECTAL CANCER

## MILITARY EXPOSURES RISKS AND OCCUPATIONS



Everywhere you read about colorectal cancer, it seems the main risk is a heavy "red meat" diet and alcohol consumption. Studies have debunked those theories heavily. There is **no significant relationship with alcohol and colon cancer**, however, rectal cancer risk is 2.2x higher. As for red meats, cohort studies suggest there is no association with red meats nor is there an increased risk for cancer in those with high consumption of red meat ([Pedersen et al., 2003](#); [Van Blarigan et al., 2022](#))

We can say that many exposures in the military and similar occupational settings can increase ones risk for colorectal cancer, below is a brief list:

- **Hexavalent Chromium** (aircraft maintenance)
- **Asbestos**
- **Ionizing radiation** (nuclear activity, medical, etc.)
- **Ambient air pollution**
- **Cadmium** (Cd)
- **Petrochemicals** (exhausts, fuels, etc.)
- **Benzo(a)pyrene** (i.e., crude oil, burn pit smoke)
- **Uranium** (various forms)
- **Helicobacter Pylori** infection

## STORY OF SURVIVAL



### Command Master Chief Billy Clark Naval Special Missions Unit Colon Cancer Survivor

CMC Clark joined the Marine Corps in 1997 before moving to the Navy in 2001. In 2005, he made the cut as a dog handler for the Naval Special Warfare Development Group, or DEVGRU, the Navy's elite Special Missions Unit. He'd already served three combat deployments when he and his teammates landed their helicopters outside a compound where a Taliban heavyweight was holed up. The image to the above (left) shows Billy with his military working dog, Aks, after a hard-fought battle in 2007. Aks and Billy cleared numerous rooms, engaged over eight enemy combatants and kept the men of ST6 safe. Unfortunately Aks was shot in the head but Billy's timely actions under fire gave Aks a fighting chance - Aks survived and was medically retired.

Billy's actions that night have warranted a valorous award, he had been recommended for the Silver Star by teammates and members of Congress. In 2017, Billy still hadn't received this much-deserved reward, however, he was told he had late stage 3B colon cancer at just 37 years old.

Billy had completed a 100-mile ultra-marathon when he began having severe rectal bleeding. He went to the hospital where a junior officer had told him "it was just polyps". Billy didn't want a step higher to the Captain in Command and a colonoscopy was performed - rightfully so. If he hadn't been diagnosed when he was, he would have likely not survived. As of 2023, CMC (ret.) Billy Clark is cancer free.

## RECOMMENDATIONS & RESOURCES

The [Department of Defense](#) has changed their colon cancer screening guidelines, and recommend that 'average risk' service members seek prevention-based services **beginning at 45**.

TRICARE and Humana have also teamed up with Exact Sciences to offer the [Cologuard DNA test](#).



### LabCorp OnDemand

\$89.00 each  
Complete every year  
80% accuracy  
Consultation with medical provider available.



### MyLabBox FIT test

\$79.00 each  
Complete every year  
80% accuracy



### NFL Crucial Catch

Cancer Screening  
Location tool hosted by  
NFL and ACS offered at:  
<https://crucialcatch.cancer.org/>