

Subject # \_\_\_\_\_

**Colorectal Cancer Screening**

**Decision Aid**

**And**

**Patient Preference**

**Questionnaire**

## **Introduction**

Colorectal cancer is the 3<sup>rd</sup> most common cancer in the United States and 2<sup>nd</sup> leading cause of cancer-related death. If found early, many patients can be cured of colorectal cancer. Moreover, removing precancerous polyps can prevent colorectal cancer. There are several different tests (or combinations of tests) that can detect cancers and polyps before they cause symptoms. These tests are called screening tests. The purpose of this questionnaire is to help doctors better understand patients' preferences for one of these tests.

### **I. There are at least 6 possible ways to screen for colon cancer:**

- Stool card test (fecal occult blood test)
- Stool DNA test
- Flexible sigmoidoscopy
- Combination: stool card test and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

## **Description of screening tests**

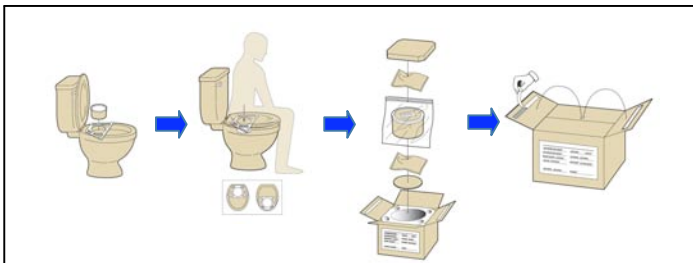
### **Stool card test**

Involves placing a small amount of stool onto a cardboard slide with a small wooden stick. It is done at home and involves three consecutive bowel movements onto three separate cards. These cards are then brought to your doctor's office or mailed in.



### **Stool DNA Test**

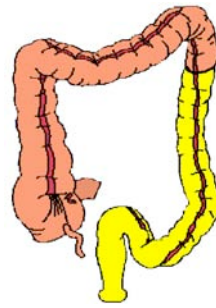
Involves placing a collection bucket directly under the toilet seat to collect a single whole stool sample. The bucket is then placed in the preaddressed packing, and shipped to the laboratory for analysis. You will not have to handle the stool material.



## Description of screening tests- continued

### Flexible sigmoidoscopy

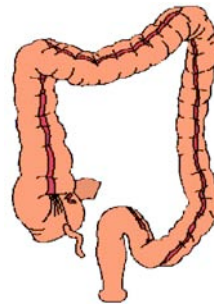
Involves using a small rubber tube placed into the rectum and then advanced to directly look at the walls of the rectum and part of the colon.



Area of the colon that can be seen using this scope.

### Colonoscopy

Similar to the flexible sigmoidoscopy in that a rubber tube is used except the tube is longer and the entire large bowel can be seen.

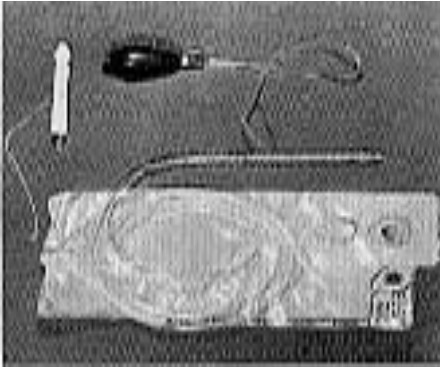


Area of the colon that can be seen using this scope.

## Description of screening tests- continued

### Barium enema

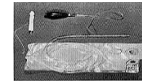
A special white fluid is placed into the colon through the rectum and followed by air instilled into the rectum. A series of x-rays are then taken of the abdomen.



### Combination of Stool Card Test and Flexible Sigmoidoscopy.



**A. This section discusses how frequently each test needs to be performed.**



<b>Stool Card Test</b>	<b>Stool DNA test</b>	<b>Flexible Sigmoidoscopy</b>	<b>Stool Card Test and Flexible Sigmoidoscopy</b>	<b>Colonoscopy</b>	<b>Barium Enema</b>
Needs to be done once a year. In 10 years it would be done 10 times.	Needs to be done once every 2 to 5 years. In 10 years, it would be done 2 to 5 times.	Needs to be done once every 5 years. In 10 years, it would be done 2 times.	Stool card test is done once every year and in addition a flexible sigmoidoscopy is done once every 5 years. In 10 years, stool card test done 10 times and flexible sigmoidoscopy done 2 times.	Needs to be done once every 10 years. In 10 years, it would be done 1 time.	Needs to be done once every 5-10 years. In 10 years, it would be done 1 to 2 times.

**(1) Based upon this information, over 10 years which test is done the least number of times?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

***B. Discomfort from each test:***



<b>Stool Card Test</b>	<b>Stool DNA test</b>	<b>Flexible Sigmoidoscopy</b>	<b>Stool Card Test and Flexible Sigmoidoscopy</b>	<b>Colonoscopy</b>	<b>Barium Enema</b>
None  Unpleasant nature of placing stool onto a card.	None  Unpleasant nature of collecting stool sample	Causes stomach pain and pressure.	Has the discomfort of both these tests.	Causes stomach pain and pressure. May be minimized with sedation.	Causes stomach pain and pressure. Constipation can occur after the test.

**(2) Based upon this information, which test do you think has the most discomfort?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

**C. Possible complications associated with each test:**



<b>Stool Card Test</b>	<b>Stool DNA test</b>	<b>Flexible Sigmoidoscopy</b>	<b>Stool Card Test and Flexible Sigmoidoscopy</b>	<b>Colonoscopy</b>	<b>Barium Enema</b>
None.	None.	Tears in the bowel or bleeding: occurs in 1-2 patients per 10,000 exams  Death: occurs in less than 1 patient per 10,000 exams	Same as flexible sigmoidoscopy	Tears in the bowel or bleeding: occurs in 10-30 patients per 10,000 exams  Death: occurs in 1-3 patients per 10,000 exams	Tears in the bowel or bleeding: occurs in 1 patient per 10,000 exams  Death: occurs in less than 1 patient per 10,000 exams

**(3) Based upon this information, which test do you think has the least number of complications?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

**D. What needs to be done before each test is performed:**



Stool Card Test	Stool DNA test	Flexible Sigmoidoscopy	Stool Card Test and Flexible Sigmoidoscopy	Colonoscopy	Barium Enema
Best results while on a restricted diet which involves avoiding red meat, and certain fruits and vegetables for two days before doing the test and until the test is finished.	Nothing.	Laxative or enema the day before and/or enemas on the morning of the test. Light meal prior to the test.	Combines the preparation of stool card test and flexible sigmoidoscopy.	Liquid diet on day before exam. Ingest 1 gallon (128 oz) of special drink or a strong laxative in liquid (3 oz.) or pill form causing bowel movements throughout the evening. No food after midnight the night before. Must come with an escort because sedation given.	Laxatives the day before and an enema the day of the test. Liquid diet starting the day before the test.

**(4) Based upon this information, which test do you think is the least inconvenient in terms of preparation?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

***E. This section discusses the amount of time to perform the test.***



<b>Stool Card Test</b>	<b>Stool DNA test</b>	<b>Flexible Sigmoidoscopy</b>	<b>Stool Card Test and Flexible Sigmoidoscopy</b>	<b>Colonoscopy</b>	<b>Barium Enema</b>
The time to collect stool from 3 consecutive bowel movements.	The time to collect a single bowel movement.	The entire process is about 1 hour. The actual test takes 5-15 minutes to perform.	Combines the time of fecal occult blood test and flexible sigmoidoscopy.	The entire process is about 2-3 hours. The actual test takes 15-30 minutes to perform.	The entire process takes an estimated 1 hour to complete. The entire test takes 20-30 minutes to perform.

**(5) Based upon this information, which test do you think takes the least amount of time?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

**F. Accuracy of the test for detecting cancers:** This is how good the test is in finding colon cancers. Some of the tests are better than others. Some of the tests may be positive even if a cancer is not there (false positive) which then requires further testing usually a colonoscopy. Sometimes the test is negative when a cancer may really be there (false negative). The best possible test would be able to find all the cancers that are really there and avoid being positive when the cancer is not really there.



Stool Card Test	Stool DNA test	Flexible Sigmoidoscopy	Stool Card Test and Flexible Sigmoidoscopy	Colonoscopy	Barium Enema
Low-Medium	Medium-High	Medium-High	Medium-High	Highest	High

**(6) Based upon this information, which test do you think is the best at finding colon cancers?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

**G. Accuracy of the test for detecting precancerous polyps (adenomas):** This is how good the test is in finding precancerous growths called adenomatous polyps. Some of the tests are better than others. Some of the tests may be positive even if a polyp is not there (false positive) which then requires further testing usually a colonoscopy. Sometimes the test is negative when a polyp may really be there (false negative). The best possible test would be able to find all significant precancerous adenomas.



Stool Card Test	Stool DNA test	Flexible Sigmoidoscopy	Stool Card Test and Flexible Sigmoidoscopy	Colonoscopy	Barium Enema
Low	Medium-High	Medium-High	Medium-High	Highest	Medium

**(7) Based upon this information, which test do you think is the best at finding precancerous polyps?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

**H. This section discusses what is done if the test is abnormal.**



<b>Stool Card Test</b>	<b>Stool DNA test</b>	<b>Flexible Sigmoidoscopy</b>	<b>Stool Card Test and Flexible Sigmoidoscopy</b>	<b>Colonoscopy</b>	<b>Barium Enema</b>
If test is abnormal, a colonoscopy is performed.	If test is abnormal, a colonoscopy is performed.	If test is abnormal, a colonoscopy is performed	If either test is abnormal, a colonoscopy is performed.	Diagnosis is made with this test. No further testing is needed.	If test is abnormal, a colonoscopy is performed.

**(8) Based upon this information, which test, if abnormal, do you think has the least complicated follow up?**

- Stool card testing
- Stool DNA test
- Flexible sigmoidoscopy
- Combination- Stool card testing and flexible sigmoidoscopy
- Colonoscopy
- Barium enema

## REVIEW



### Stool Card Test

**Frequency:** Once a year  
**Discomfort:** None  
**Complications:** None  
**Preparation:** Restricted diet  
**Time:** 3 bowel movements  
**Accuracy:** Low-Medium for cancers; Low for polyps  
**Follow-up:** Colonoscopy



### Stool DNA test

**Frequency:** Once every 2 to 5 years.  
**Discomfort:** None.  
**Complications:** None.  
**Preparation:** None.  
**Time:** A single bowel movement.  
**Accuracy:** Medium-High for cancers; Medium-High for polyps  
**Follow-up:** Colonoscopy



## Flexible Sigmoidoscopy

**Frequency:** Once every 5 years

**Discomfort:** Stomach pain and pressure

**Complications:** Tears in bowel or bleeding- occurs in 1 to 2 patients per 10,000 exams  
Death- occurs in less than 1 patient per 10,000 exams

**Preparation:** Laxatives or enemas on the day before and/or enemas prior to the test.

**Time:** 5 to 15 minutes for the test. Entire process- 1 hour.

**Accuracy:** Medium-High for cancers and polyps

**Follow-up:** Colonoscopy



## Combination: Stool card test and flexible sigmoidoscopy

**Frequency:** Stool card test- once a year.

Flexible sigmoidoscopy- once every 5 years.

**Discomfort:** Stool card test- place stool onto card.

Flexible sigmoidoscopy- stomach pain and pressure.

**Complications:** Same as flexible sigmoidoscopy

**Preparation:** Stool card test- restricted diet.

Flexible sigmoidoscopy- Laxatives or enemas on the day before and/or enemas prior to the test.

**Time:** Stool card test- 3 bowel movements.

Flexible sigmoidoscopy- 5-15 minutes for the test. Entire process- 1 hour.

**Accuracy:** Medium-High for cancers and polyps

**Follow-up:** Stool card test- colonoscopy

Flexible sigmoidoscopy- colonoscopy



## Colonoscopy

**Frequency:** Once every 10 years

**Discomfort:** Stomach pain and pressure. Minimized with sedation.

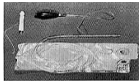
**Complications:** Tears in bowel or bleeding- occur in 10 to 30 patients per 10,000 exams  
Death- 1 to 3 patients per 10,000 exams

**Preparation:** Liquid diet on day prior to exam. Ingest 1 gallon (128 oz) of special drink or a strong laxative in liquid (3 oz.) or pill form causing bowel movements throughout the evening. No food after midnight the night before. Must come with an escort because sedation given.

**Time:** 15-30 minutes for the test. Entire process- 2-3 hours.

**Accuracy:** Highest for cancers and polyps

**Follow-up:** None



## Barium enema

**Frequency:** Once every 5-10 years

**Discomfort:** Stomach pain and pressure.

**Complications:** Tears in bowel or bleeding- 1 in 10,000 times  
Death- less than 1 in 10,000 times

**Preparation:** Laxatives the day before and enema the day of the test.

**Time:** 20-30 minutes for the test. Entire process- 1 hour.

**Accuracy:** High for cancers; Medium for polyps

**Follow-up:** Colonoscopy

**(9) With the help of the information you have read, which testing type would you choose if given a choice by your doctor?** Please rank the alternatives 1,2,3,4,5,6 with 1 being the most preferable and 6 the least preferred. Use each number only once.

- \_\_\_ Stool card testing
- \_\_\_ Stool DNA testing
- \_\_\_ Flexible sigmoidoscopy
- \_\_\_ Combination- Stool card testing and flexible sigmoidoscopy
- \_\_\_ Colonoscopy
- \_\_\_ Barium enema

**(10) Summary of important test characteristics involved with choosing a particular test:**

Please select the three most important qualities of a test from the list below that influenced your decision on choosing a particular test. Once this is done, please rank them 1,2, and 3 with 1 being the most important, 2 the next most important, and 3 the third most important quality.

- \_\_\_ How often the test needs to be done
- \_\_\_ Discomfort associated with the test
- \_\_\_ Complications associated with the test
- \_\_\_ What needs to be done in preparing for the test
- \_\_\_ How long it takes to do the test
- \_\_\_ Accuracy of the test
- \_\_\_ Further testing for abnormal results

**(11) Medical insurers may not pay for all of the different screening tests. Would you still pick the screening test you rate #1 in question 8 if your insurance company did not cover it and you had to pay out-of-pocket?**

- Yes, regardless of the cost
- Maybe, depending on the cost
- No
- Not sure

**(12) Your doctor presents the six different screening options which we have discussed today at your next visit. At that time you will:**

- Have your doctor decide which test should be done.
- Have your doctor decide which test should be done only after he/she hears your opinions on the topic.
- Would like for your doctor and you to decide together which test should be done.
- You will decide which test to have done after hearing your doctor's opinion on the topic.
- You will decide which test to have done using all you know or have learned about the different tests.

**(13) Please respond to the following: It is important that my doctor know what my preferences are in deciding on a test for colon cancer screening.**

Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
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**(14) Would you have the screening test for colon cancer if the test recommended by your doctor is the same as the one you prefer?**

- Yes
- No

**(15) Would you have the screening test for colon cancer done if the test recommended by your doctor is different from the one you prefer?**

Yes       No

**(16) Which of the screening tests would you have done if recommended by your doctor?**

Stool card test	Stool DNA test	Flexible sigmoidoscopy	Combination-Stool card test and flexible sigmoidoscopy	Colonoscopy	Barium enema
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**(17) Which of the screening tests would you not have done even if recommended by your doctor?**

Stool card test	Stool DNA test	Flexible sigmoidoscopy	Combination-Stool card test and flexible sigmoidoscopy	Colonoscopy	Barium enema
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**(18) Has your doctor ever discussed colon cancer screening with you?**

Yes       No

**(19) Have you ever had any of the following tests done in the past (may check more than one)?**

- Stool card testing
- Stool DNA testing
- Flexible sigmoidoscopy
- Colonoscopy
- Barium enema
- Never been tested for colorectal cancer

**(20) Background information**

**Your age**     **40-49**  
                   **50-59**  
                   **60-69**  
                   **70 and older**

**Your sex**     **Male**  
                   **Female**

**Race/**         **White**  
**Ethnicity**    **Black**  
                   **Hispanic**  
                   **Asian**  
                   **Other- please specify** \_\_\_\_\_

**Family history of colon cancer**     **yes**  
   **no**  
   **don't know**

**Highest level of education**         **No school completed**  
   **Less than 9<sup>th</sup> grade**  
   **High school- not completed**  
   **High school degree or equivalency**  
   **College- not completed**  
   **College degree**  
   **Graduate degree**

Thank you for your time and effort. Your participation in this study has been greatly appreciated.