



NCCN  
GUIDELINES  
FOR PATIENTS®

2024

# Colorectal Cancer Screening



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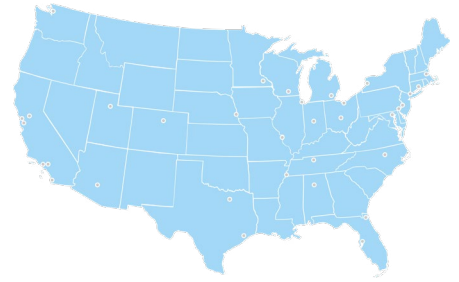


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Cancer care is always changing. NCCN develops evidence-based cancer care recommendations used by health care providers worldwide. These frequently updated recommendations are the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®). The NCCN Guidelines for Patients plainly explain these expert recommendations for people with cancer and caregivers.

**These NCCN Guidelines for Patients are based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Colorectal Cancer Screening, Version 1.2024 – February 27, 2024**

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3025 Chemical Road, Suite 100, Plymouth Meeting, PA 19462 USA

# 1

## About colorectal cancer screening

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**Screening prevents colorectal cancer by finding and removing polyps before they become cancer. If cancer has started to develop, screening can find it early, when a cure is more likely.**

Colorectal cancer refers to cancers that form in the colon or rectum. These organs make up the large intestine, also called the large bowel.

In the colon, the food you eat becomes feces (stool). Stool is held in the rectum until it leaves the body during a bowel movement.

The bowel wall is made of layers of tissue. Cancer starts in the innermost layer that comes in contact with stool.

## What is screening?

Screening is testing for a health problem in someone without any signs or symptoms of the problem.

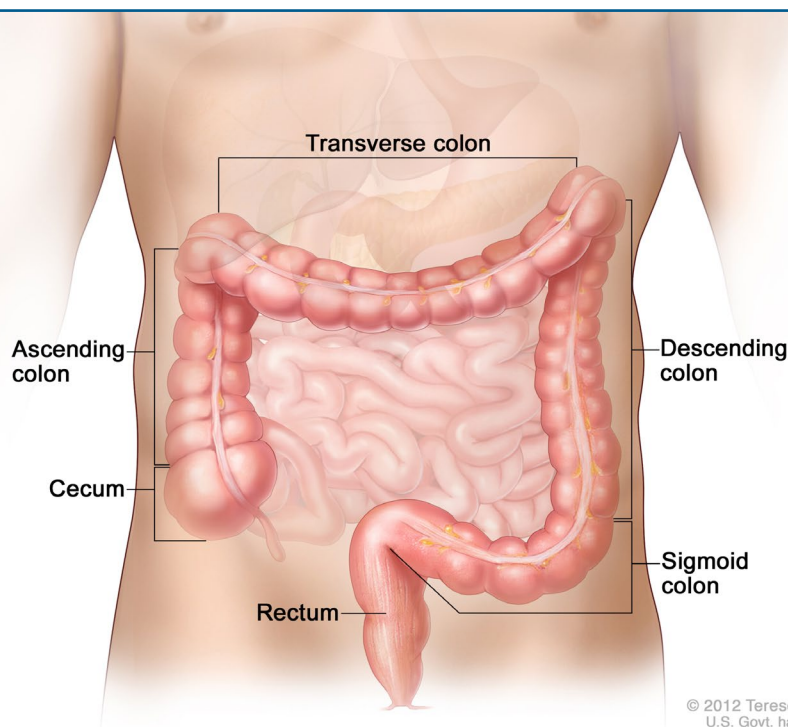
Your provider will consider your age, health history, and family health history to determine your risk of developing colorectal cancer. Your risk determines when you should start screening, and which method(s) are recommended for you.

Most people are at average risk and have several types of screening tests to choose from.

In the United States, American Indians/Alaska Natives and Black individuals are more likely to develop, and to die from, colorectal cancer.

### The large bowel

The start of the colon is a pouch called the cecum. The rest of the colon has 4 main sections: the ascending, transverse, descending, and sigmoid colon. The rectum is the last part of the large bowel. Stool is held there until it leaves the body through the anus.



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## Polyps and lesions

Polyps are non-cancerous growths on the inner lining of the large bowel. Some types are more likely to form cancer than others.

There are different shapes and sizes of polyps, including some that are very flat and subtle. Pedunculated polyps have a stalk and stick out from the colon wall. Sessile polyps are flatter and don't have a stalk.

Removing polyps can prevent cancer before it starts. Most can be removed during a colonoscopy. Non-invasive screening tests can detect polyps, but cannot remove them.

Polyps can also be tested to make sure that cancer hasn't started to develop.

While most polyps don't become cancer, your cancer risk is increased if you've had any of the types described next.

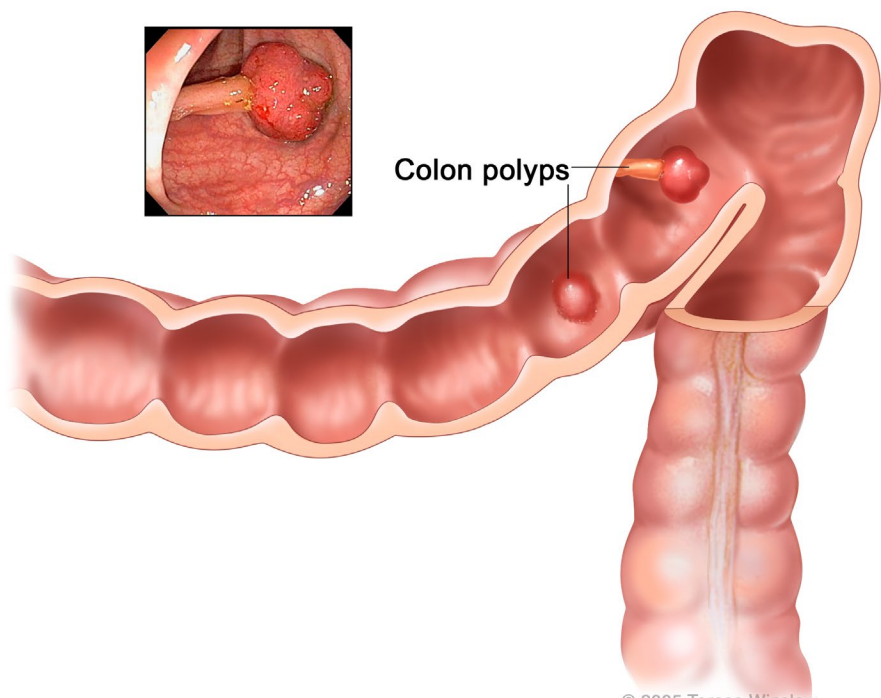
### Adenomas

Adenomas are the most common type of polyp. They are pre-cancerous. This means that while it may take many years, an adenoma can become invasive cancer. Cancer that forms in an adenoma is called an adenocarcinoma. It is the most common type of colorectal cancer.

Growth patterns refer to how a polyp looks when viewed under a microscope. Adenomas have 3 types of growth patterns: tubular (most common), villous, and tubulovillous.

### Polyps

**Polyps are growths on the lining of the bowel wall. Pedunculated polyps look like mushrooms and stick out from the colon wall. Sessile polyps are flatter and don't have a stalk.**



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Some adenomas are more likely to become cancer than others. These “advanced” adenomas have at least 1 of the following features:

- Are 1 centimeter (1 cm) or larger in size
- Have high-grade dysplasia
- Have a villous or tubulovillous cell pattern

Adenomas are also called adenomatous polyps, traditional polyps, and conventional polyps.

### Serrated polyps

Serrated polyps can also form pre-cancerous cells. These polyps have a saw-tooth pattern when viewed under a microscope.

Sessile serrated polyps (also called sessile serrated lesions) are flatter polyps without a stalk.

Traditional serrated adenomas are rare polyps that have a villous growth pattern.

Hyperplastic polyps are also part of the serrated family of polyps. While most don't become cancer, experts are unsure whether hyperplastic polyps larger than 1 centimeter increase the risk of colorectal cancer. Because they might, more frequent screening is often recommended for large hyperplastic polyps.

### Screening vs. diagnosis

Cancer screening is for people with no signs or symptoms of colorectal cancer. If you have signs or symptoms, the aim of testing is to find the problem and make a diagnosis. Contact your health care provider if you have these signs or symptoms:



**Bloody stools**



**Change in bowel habits**



**Iron-deficiency anemia**



**Abdominal pain**

## Determining your risk

Your provider will consider your age, health history, and your family's health history to determine your risk of developing colorectal cancer.

Your risk determines when you should start screening, and which method(s) are recommended for you. Most people are at average risk. See the chart below to learn about the risk levels.

### Are you at average or increased risk of colorectal cancer?

#### Average risk

Age 45–75 years

**AND**

No history of colorectal cancer or advanced, high-risk polyps in first-degree relatives (birth parents, full siblings, biological children)

**AND**

You've never been diagnosed with any of these conditions

• • • • ➤

#### Increased risk

Family history of colorectal cancer or advanced, high-risk polyps

**OR**

You've ever been diagnosed with any of the following conditions:

- Colorectal cancer
- Adenomas or sessile serrated polyps
- Inflammatory bowel disease (IBD)
- Cystic fibrosis
- A childhood cancer
- Lynch syndrome
- Familial adenomatous polyposis
- *MUTYH*-associated polyposis
- Peutz-Jeghers syndrome
- Juvenile polyposis syndrome
- Serrated polyposis syndrome
- Cowden syndrome/*PTEN* hamartoma tumor syndrome
- Li-Fraumeni syndrome

## Other ways to lower your risk

Screening is the best way to prevent colorectal cancer. Other steps you can take to lower your risk are described next.

### Other ways to lower your risk of colorectal cancer



Eat a healthy diet rich in plant-based foods. Limit red meat and processed foods. Get your nutrients from real foods; don't rely on supplements alone.



Drink little to no alcohol.



Move more, rest less.



Maintain a healthy weight. Tracking your weight, diet, calories, and activity levels may help you meet your goals.



Stop using tobacco. Ask your care team about options to help you quit. Counseling and medication are often options.



Get your vitamin D from foods like salmon, tuna, mackerel, and egg yolks. Your skin can also make vitamin D when exposed to the sun, but remember to wear sunscreen when outside for a long time.

## Key points

- Colorectal cancer refers to cancer of the colon or rectum. Polyps are growths on the inner lining of these organs.
- Most polyps don't become cancer, but your cancer risk is increased if you've had certain types of polyps.
- Screening prevents colorectal cancer by finding and removing polyps before they become cancer. It also finds cancer early, when a cure is more likely.
- Your provider will consider your age, health history, and your family's health history to determine your risk of developing colorectal cancer.
- Your risk determines when you should start screening, and which method(s) are recommended for you. Most people are at average risk.
- In addition to screening, living a healthy lifestyle can help prevent colorectal cancer. Limit processed foods and alcohol, stay active, and stop using tobacco.



### **We want your feedback!**

**Our goal is to provide helpful and easy-to-understand information on cancer.**

**Take our survey to let us know what we got right and what we could do better.**

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# 2

## Screening in those at average risk

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**For people at average risk of colorectal cancer, screening starts at age 45. There are several screening tests to choose from. Share your preferences about screening methods with your provider.**

## Screening starts at age 45

People at average risk of colorectal cancer should start screening at age 45. People in good health should continue screening until age 75.

If you are between 76 and 85 years of age, cancer screening is a personal decision. Talk with your health care provider about the possible benefits and risks of screening, taking into account your overall health.

Colorectal cancer screening isn't needed for those over 85 years of age.

People with an average risk of colorectal cancer have several options for screening, described next. Ask your doctor about the pros and cons of each.

### **Ages 45 to 75**

Get screened (unless you have a serious health condition).

### **Ages 76 to 85**

Screening is a personal decision. Learn what the pros and cons are for you.

### **Ages 86 and above**

Screening isn't needed.

# Colonoscopy

In the United States, colonoscopy is the most common colorectal cancer screening test, regardless of risk level.

This procedure allows a health care provider, usually a gastroenterologist, to examine the entire large bowel and to remove any abnormal growths.

Along with flexible sigmoidoscopy (described next), colonoscopy is considered a(n):

- Visual screening test
- Structural screening test
- Endoscopic screening test

Endoscopic procedures are the only screening method that can remove polyps.

## Bowel cleanout

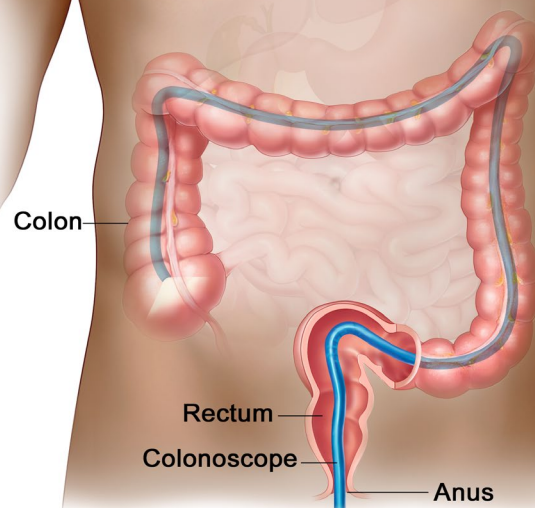
Colonoscopy requires that your bowel be cleared of stool. This bowel prep consists of a liquid diet and strong laxatives. Follow the prep instructions carefully. If your bowel isn't clear enough, you may have to reschedule or repeat the test.

## What to expect

You will likely wear a hospital gown. The test will be performed while you lie on your side. If you opted to be asleep for the procedure, you will be given an intravenous sedative.

## Colonoscopy

Colonoscopy is a procedure that allows your doctor to see and remove any abnormal tissue from the colon. A thin device is inserted through the anus, up the rectum, and into the colon. The device has a light, a camera, and a cutting tool.



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Your provider will insert a long thin device with a light and a camera into your anus and gently guide it through the entire large bowel. They will view your colon on a monitor and look for abnormal growths.

If any polyps or lesions are found, they will remove them during the procedure using a cutting tool. This is called polypectomy. Most polyps can be removed this way. Surgery is rarely needed.

The number of polyps, and their size and location, will be noted in a colonoscopy report.

The removed polyps will be sent to an expert called a pathologist to examine. This doctor will look for cancer cells in the polyp using a microscope. If any are found, a cancer diagnosis will be made.

The diagnosis will be included in a pathology report, along with other details of the tissue tests. The next steps of care will be based on the details of your colonoscopy and the pathologic findings.

A colonoscopy takes less than an hour. Afterward, you may stay for another hour for any drugs that were used to wear off. You will need someone to drive you home. The next day, you will likely feel normal. Contact your doctor if you have severe pain, vomiting, bloody stool, or weakness.

### Results and next screen

If no polyps are found, you can wait 10 years until your next screen, and you can use any screening method. You can also wait 10 years if the only polyp(s) found are small and hyperplastic.

If any of the following polyps are found, you should stick with colonoscopy for your next screen. And, the timing of your next colonoscopy depends on the number, size, and other features of the removed polyps.

- Adenoma (any size)
- Sessile serrated polyp (any size)
- Hyperplastic polyp 1 cm or larger

On the next pages, information on rescreening after having polyps removed is provided.

**Small polyp(s) removed**

When one or two small adenomas are found and removed, time until rescreening is similar to average risk. Serrated polyps are more likely to return after being removed, so the interval is shorter. See the chart below for more details.

A very large number of polyps may be due to a hereditary cancer syndrome. Your provider is likely to refer you for genetic testing if you've had many polyps removed.

**Large polyp(s) removed**

Polyps 1 cm or larger can be hard to remove. They may also have other features that increase the risk of cancer.

After removal of a **large pedunculated polyp** that showed no signs of cancer, colonoscopy is recommended in **3 years**.

Sessile polyps tend to grow back after treatment. For sessile polyps and lesions without high-risk features, colonoscopy is

**Rescreening after small polyp(s) found at colonoscopy**

Number and type of polyp(s) removed	Time until next colonoscopy	If results are normal, the time until the next screen is extended
1 or 2 adenomas smaller than 1 cm	7 to 10 years	10 years
1 or 2 sessile serrated polyps (without dysplasia) smaller than 1 cm	5 years	10 years
<ul style="list-style-type: none"><li>Any traditional serrated adenomas</li><li>Advanced or multiple polyps with high-risk features</li><li>3 to 9 adenomas or sessile serrated polyps</li></ul>	3 years	5 years
<ul style="list-style-type: none"><li>10 or more high-risk polyps found during 1 colonoscopy</li><li>20 or more high-risk polyps found during multiple colonoscopies</li></ul>	<p>The high number of polyps suggests that you may have a hereditary colorectal syndrome. Referral for genetic evaluation is recommended.</p> <p>Colonoscopy is recommended in 1 year, or the timing of your next screen may be individualized.</p>	

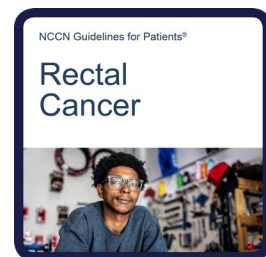
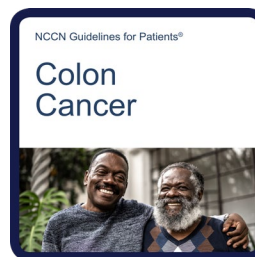
recommended in 1 to 3 years. If results are normal, you can wait 3 years until your next colonoscopy.

For sessile polyps with high-risk features, or that weren't removed in one piece, colonoscopy is recommended in 6 months. If results are normal, your next colonoscopy will take place in 1 year, then again 3 years later if results are normal.

### If cancer is found

For information on cancer treatment, see *NCCN Guidelines for Patients: Colon Cancer and Rectal Cancer* at [NCCN.org/patientguidelines](https://www.nccn.org/patientguidelines) and on the [NCCN Patient Guides for Cancer](#) app.

These resources address mismatch repair (MMR) testing. All colorectal cancers should be tested for this biomarker (feature).



### Who is most affected?

**In the United States, American Indians/Alaska Natives and Black individuals are more likely to develop colorectal cancer and to die from it than any other racial or ethnic group. These individuals also often face barriers to colorectal cancer screening.**



## Flexible sigmoidoscopy

This visual screening method is an exam of the rectum and the last part of the colon. To see these areas, your provider will gently insert a device with a tiny camera through your anus and into the large bowel.

If no polyps are found, screening is recommended again in 5 to 10 years using any method. This also applies if the only polyps found are hyperplastic and smaller than 1 cm. Speak with your provider about the benefits and risks of each method.

If any polyps or flat lesions are seen, your provider will remove or biopsy them during the procedure. A pathologist will examine the

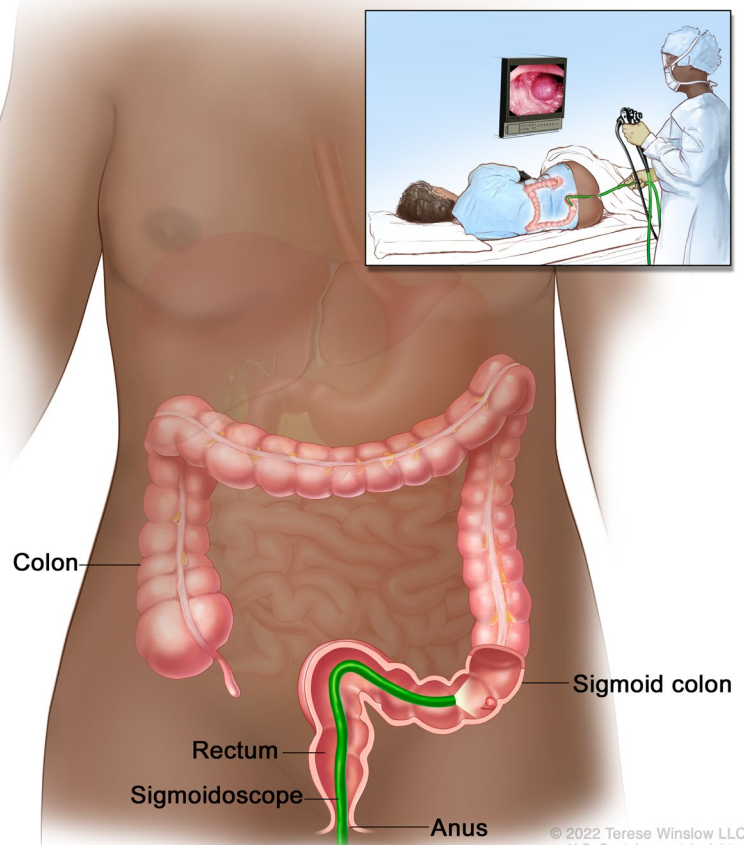
removed polyps and/or tissues. If any of the following polyp types are found, colonoscopy is recommended:

- An adenoma
- A sessile serrated polyp or lesion
- A hyperplastic polyp 1 cm or larger

If you've had any of the polyp types listed above, you are at increased risk for colorectal cancer. More frequent screening is recommended. See *Chapter 3* for recommendations for screening in those at increased risk.

### Sigmoidoscopy

**Flexible sigmoidoscopy allows a health care provider to view your rectum and the last part of your colon. If no polyps are found, screening is recommended again in 5 to 10 years (using any method).**



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# CT colonography







Computed tomography (CT) colonography, also called virtual colonoscopy, is another screening option for people at average risk. This test uses a CT scanner and a small amount of radiation to get a close look at the large bowel. It also shows nearby organs in the abdomen.

CT colonography is non-invasive and doesn't require sedation. A disadvantage is that bowel cleaning is needed, just like for a colonoscopy.

If no polyps or lesions are found, screening is recommended again in 5 years using any method. Speak with your provider about the benefits and risks of each method.

If any polyps are found, colonoscopy is recommended. If only 1 to 2 tiny polyps are found, waiting 3 years and rescreening with CT colonography is also an option.

## Rescreening in people at average risk

Screening method		Time until next screening if results are normal
Colonoscopy		Rescreen in 10 years
Flexible sigmoidoscopy		Rescreen in 5 to 10 years
CT colonography		Rescreen in 5 years
Multitargeted stool DNA-based test (mtDNA)		Rescreen in 3 years
High-sensitivity guaiac-based FOBT		Rescreen in 1 year
Fecal immunochemical test (FIT)		Rescreen in 1 year

### Stool-based screening

Stool-based tests can detect signs of colorectal cancer in a stool sample. These signs include blood and DNA released by abnormal cells.

Stool-based tests are only FDA-approved for those at average risk of colorectal cancer.

This method involves collecting a sample of your stool at home and sending it to a lab for testing.

Stool tests are easier than colonoscopy, but they aren't as good at finding polyps that could become cancer. And, if stool test results are abnormal, a colonoscopy is recommended 6 to 10 months afterward.

#### Fecal occult blood tests

Fecal occult blood tests (FOBTs) look for occult (hidden) blood in stool. The most common type uses guaiac, a substance used to coat the stool sample cards. If there is blood in the sample, the guaiac will cause it to change color rapidly.

Guaiac FOBT requires that you collect 3 stool samples in a row. It also requires that you follow a special diet.

The fecal immunochemical test (FIT) is another type of FOBT. A sample of stool is placed in a collection tube or on a card for testing. FIT uses an antibody that binds to a blood protein called hemoglobin to detect blood.

Unlike guaiac FOBT, the FIT doesn't require changing your diet. And many brands only require 1 stool sample per year.

If the results of guaiac FOBT or FIT are positive, colonoscopy is recommended within 9 months. If the results are negative, screening (with any method) is recommended again in 1 year.

#### Multi-targeted stool DNA test

This method looks for both blood and DNA in your stool that could be caused by a precancerous polyp or colon cancer. Cologuard is a currently available multi-targeted stool DNA test.

If the results are positive, colonoscopy is recommended within 9 months.

If the stool DNA results are negative, screening (using any method) is recommended again in 3 years.

### Blood-based screening

FDA-approved blood tests for colorectal cancer screening are available. At this time, they are only for people at average risk who can't or won't use other screening methods.

After screening with a blood-based test, it is unknown how long to wait until your next screening. Talk to your health care provider about the timing of your next screen.



### Key points

- People at average risk start screening at age 45 and have several screening methods to choose from. Discuss the pros and cons of each option with your health care provider.
- The time until the next screening varies based on the prior screening method.
- If you have normal colonoscopy results, screening isn't needed for another 10 years.
- After screening with a stool-based test, rescreening ranges from 1 to 3 years.
- If you opt for a noninvasive screening method and the test is positive, a colonoscopy is needed to complete the screening process.
- You are at increased risk of colorectal cancer if you you've had an adenoma or a sessile serrated polyp. After these polyps are removed, the timing of your next screening will be based on the number and features of the removed polyps.

### Know your family history

A family history is one of the most important risk factors for colorectal cancer. Be prepared to tell your health care provider the following information:

- The type of cancer, if any, among blood relatives
- Their age at cancer diagnosis
- Their current age or age at time of death
- Inherited health conditions and birth defects in your family



# 3

## Screening in those at increased risk

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**Colonoscopy is the preferred screening method for everyone at increased risk of colorectal cancer.**

## Inflammatory bowel disease

Inflammatory bowel disease (IBD) is a group of health problems that cause long-term swelling and damage in the digestive tract. The damage can lead to the growth of abnormal cells, which can become cancer over time.

Ulcerative colitis and Crohn's colitis are types of IBD. These conditions often start before 30 years of age, or much later in life. Having either increases your risk of colorectal cancer.

Your risk is further increased if colorectal cancer runs in your family, or if you have primary sclerosing cholangitis, a health condition that causes damage and narrowing of the bile ducts.

Dysplasia is hard to see because it often occurs in a flat and normal-looking section of the colon wall. It's ideal to do screening when IBD is inactive.

### Start of cancer screening

In people with IBD affecting the colon, most should start screening for colorectal cancer 8 years after their IBD symptoms started. Starting earlier than 8 years is recommended if you have a family history of colorectal cancer.

People with primary sclerosing cholangitis should start screening when they are diagnosed with PSC, regardless of when their IBD symptoms started.

### Screening methods

Colonoscopy should always be used to screen for colorectal cancer in people with IBD. Your doctor will gently guide a thin device through your anus and into your colon while you are sedated.

Dysplasia can be hard to see with a typical colonoscopy, so it is paired with newer methods in order to see better. These include:

- High-definition white light endoscopy (HDWLE)
- Chromoendoscopy

Chromoendoscopy involves applying a stain to the inner lining of the bowel. The stain makes it easier to see abnormal areas and perform targeted biopsies.

Your provider will biopsy (remove samples from) any areas that look abnormal. They will also take random samples from every section of the large bowel.

### Resectable polyps or lesions

Polyps and lesions that can be safely removed are called resectable. If any are found, they will be removed endoscopically (if possible). The timing of your next colonoscopy depends on the features of the removed polyps.

For lower risk polyps that are completely removed, colonoscopy is recommended in 1 to 3 years.

For higher risk polyps that are completely removed, rescreening is recommended in 1 year, but may be needed as soon as 3 months afterward.

If a polyp wasn't fully removed, you may be referred to an endoscopist trained in advanced resection techniques, or to a surgeon who specializes in IBD.

#### **Invisible dysplasia**

Testing may find dysplasia (abnormal tissue) in samples that looked normal during endoscopy. This is called invisible dysplasia. It can't be seen with an endoscope.

If dysplasia is confirmed, chromoendoscopy is the next step (if not already performed). Your provider may perform this, or refer you to an endoscopist with expertise in chromoendoscopy. Your provider may also refer you to a surgeon who specializes in IBD to discuss surveillance versus surgery.

#### **No dysplasia found**

If no dysplasia is found, colonoscopy is recommended in 1 year for those at high risk. High-risk features include primary sclerosing cholangitis, active inflammation, and a family history of colorectal cancer diagnosis before age 50.

For all others without active inflammation, the next colonoscopy should take place in 2 to 5 years.

#### **Colon stricture**

Over time, IBD can cause scar tissue to form in the lining of the bowel. This causes the bowel to narrow in certain areas, called strictures.

Colon strictures can have underlying cancer, especially in people with long-term IBD. If surveillance screening detects a stricture, you should be seen by an expert in IBD.

The next step of care may be surgery to remove all or part of your colon. This is called colectomy. If surgery isn't planned, rescreening in 1 year is recommended.

### **Cystic fibrosis**

People with cystic fibrosis are at increased risk of colorectal cancer. It often develops earlier in people with this condition compared to those at average risk. If you've had an organ transplant for managing cystic fibrosis, the risk is even higher.

In those who have had an organ transplant, colonoscopy is recommended starting at age 30, or within 2 years of the transplant. If you haven't had an organ transplant, screening starts at age 40.

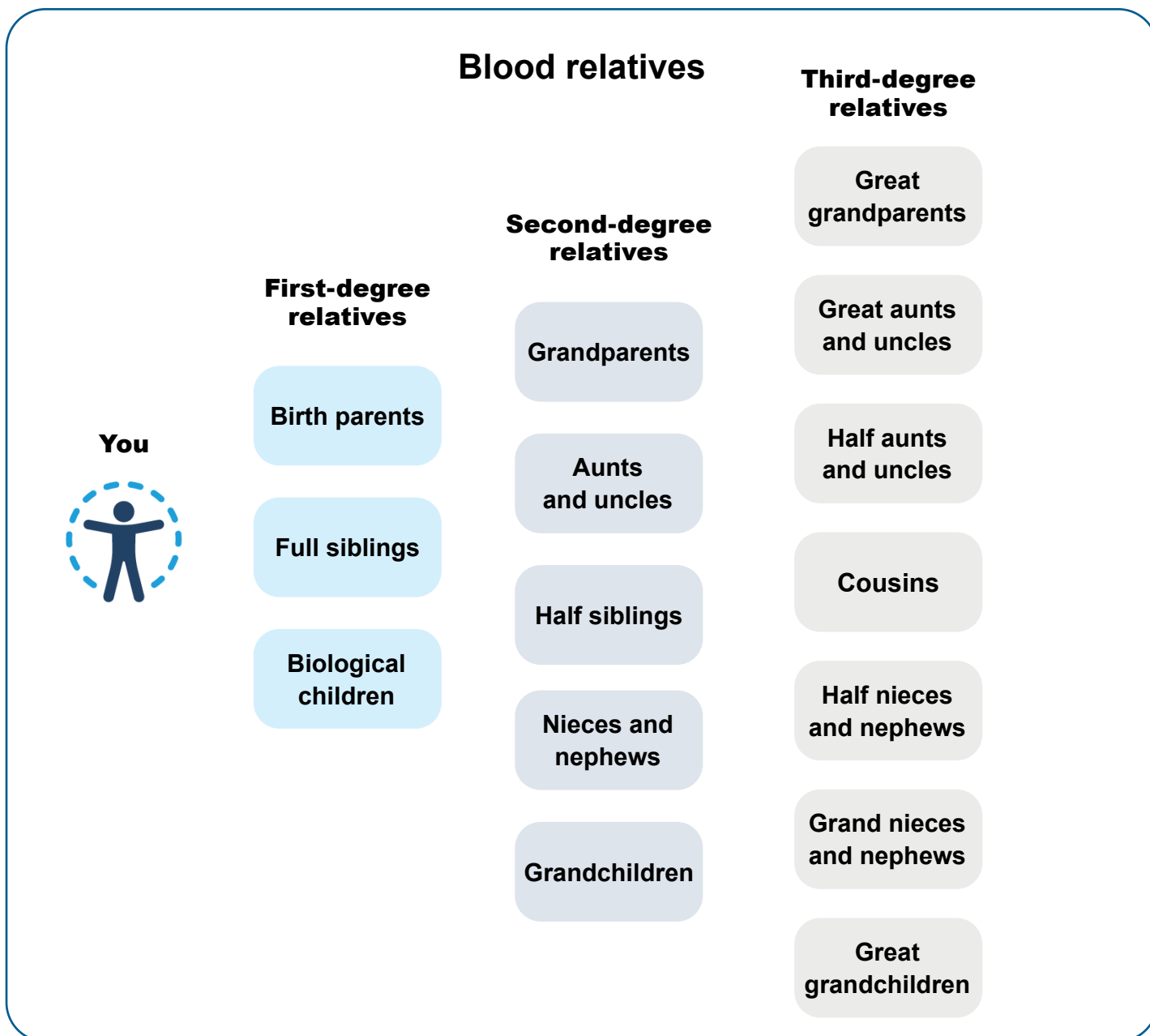
A more thorough bowel cleanout process is needed before colonoscopy for those with cystic fibrosis. Your care team will instruct you on the bowel prep.

If the colonoscopy results are normal, the next will take place in 5 years. If the colonoscopy finds pre-cancerous polyps, the next is recommended 3 years.

## Family history of colorectal cancer

Your provider will ask about the health history of your biological (related by blood) family members. If you have a first-degree relative with a history of colorectal cancer, you are at increased risk of developing it too.

In most families with a history of colorectal cancer, the cause isn't clear. It may be caused by shared genes, shared experiences, or both. In rare cases, the cause is a hereditary colorectal syndrome. More information on these syndromes is provided below. The following recommendations **don't** apply to families with these syndromes.



Compared to average-risk screening, screening based on family history often starts earlier and is more frequent. The time between screenings might be lengthened if 2 screenings in a row are normal. Other factors that may alter screening include your age and the number and age of affected family members.

Share your screening results with your family. Tell them if any polyps or any cancers are found. When they know your history, they can make informed decisions. Screening recommendations for family members may be included in your colonoscopy report. Some providers will give you a letter for you to share with your first-degree relatives.

#### **First-degree relative(s) with CRC**

If you have any first-degree relatives diagnosed with colorectal cancer at any age, colonoscopy is recommended beginning at age 40, or 10 years before the earliest diagnosis in your family. For example, if your first-degree relative was diagnosed at age 44, you should start screening at age 34.

Repeating colonoscopy every 5 years is recommended if results are normal. Or, you and your provider may decide on a different screening schedule based on your age, preferences, and the details of your family history.

#### **First-degree relatives with advanced high-risk polyps**

If 1 or more of your first-degree relatives has had an advanced, high-risk polyp, screening colonoscopy is recommended at age 40, or at the age the relative was diagnosed, whichever comes first.

Screening should be repeated every 5 to 10 years, as long as the results continue to be normal. Or, you and your provider may decide on a different screening schedule based on your age, your preferences, and the details of your family history.

#### **Second- or third-degree relatives with CRC**

If you have any second- or third-degree (but no first-degree) relatives who have been diagnosed with colorectal cancer, screening should start at age 45, like those at average risk.

While your risk of colorectal cancer might be higher than someone at average risk, studies haven't found enough data to support screening before age 45.

Repeating colonoscopy is recommended every 10 years, as long as results continue to be normal.

#### **Hereditary cancer syndromes**

Hereditary cancer syndromes are rare syndromes caused by changes in certain genes that are most often passed down from a birth parent to a child. A genetic cause is more likely if you have many relatives with colorectal cancer, and if their cancer was diagnosed before age 45.

People born with Lynch syndrome are at high risk of developing several types of cancer such as colon, endometrial, and ovarian cancers. Lynch syndrome is caused by inherited mutations of the mismatch repair (MMR) genes.

Polyposis syndromes are a group of cancer syndromes that cause colorectal polyps. The most common is familial adenomatous polyposis (FAP). FAP causes hundreds to thousands of polyps to form in the colon and rectum.

If an inherited syndrome is suspected, your doctor will refer you to a genetic counselor. This expert can speak with you and your family about testing for syndromes related to colorectal cancer. To be tested, you must provide a sample of blood or saliva. The sample is sent to a lab to look for gene mutations that cause these syndromes.

It is important to meet with a genetic counselor before having any genetic testing.



**My genetic testing, which identified me with an MSH2 mutation (Lynch syndrome), helped me make decisions about future treatment and understand my future risk for other cancers. This allowed me an opportunity to be proactive in my own health care."**

## History of cancer treatment

Some cancer treatments increase your risk of developing another cancer years later. If you had treatment with any of the following as a child, adolescent, or young adult, you are at higher risk of colorectal cancer:

- chemotherapy
- radiation therapy (especially to the abdomen, pelvis, or spine)
- total body irradiation (regardless of dose, with or without chemotherapy)

For those with a history of chemotherapy only, colonoscopy is recommended starting at age 35, or 10 years after chemotherapy (whichever happens last). This means that if you had chemotherapy at age 28, screening starts at age 38. Screening should always start by age 45, and should be repeated every 5 years.

For those who had radiation therapy as described above, colonoscopy is recommended starting at age 30, or 5 years after treatment (whichever occurs last). Screening should always start by age 45, and should be repeated every 5 years.

If you've had 10 or more polyps (of any type) anywhere in your GI tract, they could be caused by your prior cancer treatment. This is more likely if comprehensive genetic testing didn't find any gene changes linked with colorectal cancer or hereditary polyp syndromes.

In this case, your provider may suggest an upper endoscopy (in addition to the colonoscopy surveillance). This will allow them

### Take steps to get screened

You can take steps to get screened and reduce your risk of colorectal cancer:

- Start the conversation early. Before age 45, discuss your risk of colorectal cancer with your health care provider.
- Know your family history of colorectal cancer, which may require earlier screening.
- Learn about your options for colorectal cancer screening.
- Start screening on time and stay on schedule for follow-up screening.
- Be active, make healthy food choices, and quit using tobacco.

to have a baseline (starting) look at your GI tract that can be compared to future GI exams.



## Key points

- People with cystic fibrosis are at increased risk of colorectal cancer. If you've had an organ transplant, colonoscopy is recommended starting at age 30, or within 2 years of the transplant. Otherwise, screening starts at age 40.
- People with inflammatory bowel disease (IBD) affecting the colon have an increased risk of colorectal cancer. Screening should start 8 years after IBD symptoms begin, or earlier if you have a family history or primary sclerosing cholangitis. The time until the next screening ranges from 3 months to 3 years based on cancer risk.
- If you have a family history of colorectal cancer or pre-cancerous polyps, screening often starts at or before age 40. You may be rescreened in as soon as 5 years, even if no polyps are found.
- Treatment with chemotherapy or radiation therapy as a child or young adult increases your risk of colorectal cancer later in life. Screening should start earlier than recommended for people at average risk.



### **Let us know what you think!**

**Please take a moment to complete an online survey about the NCCN Guidelines for Patients.**

[NCCN.org/patients/response](https://www.nccn.org/patients/response)



# Resources

**CanCare, Inc.**

[Cancare.org](https://cancare.org)

**CancerCare**

[cancercares.org](https://cancercares.org)

**Colorectal Cancer Alliance**

[ccalliance.org](https://ccalliance.org)

**Fight Colorectal Cancer**

[fightcolorectalcancer.org](https://fightcolorectalcancer.org)

**Imerman Angels**

[imermanangels.org](https://imermanangels.org)

**National Coalition for Cancer Survivorship**

[canceradvocacy.org](https://canceradvocacy.org)

**Triage Cancer**

[Triagecancer.org](https://triagecancer.org)

## Colorectal cancer and younger adults

For unknown reasons, colorectal cancer is being diagnosed more often in people under the age of 45. These cancers can be mistaken for hemorrhoids or other non-cancerous conditions. If you see blood in your stool or notice a change in your bowel habits, contact a health care provider for testing.

“

Colorectal cancer has always been thought of as an 'old person's disease.' Now, studies have shown that a person born on or after 1990 is 2 to 4 times more likely to develop colorectal cancer compared to a person born in 1950. Because of this, it is very important to get screened at 45 years old."

## Words to know

### **adenoma**

The most common type of colorectal polyp. Also called an adenomatous polyp, traditional polyp, and conventional polyp.

### **colon**

The longest section of the large bowel. Where digested food becomes stool.

### **colonoscopy**

A procedure to look inside the colon with a device that is guided through the anus.

### **computed tomography colonography**

An option for screening in people at average risk of colorectal cancer. Uses computed tomography (CT) imaging to view the large bowel and nearby areas. Also called virtual colonoscopy.

### **Crohn's colitis**

A type of inflammatory bowel disease that causes long-term swelling in the colon.

### **dysplasia**

A pattern of abnormal cell growth.

### **fecal immunochemical test (FIT)**

A lab test that looks for tiny amounts of blood in stool.

### **flexible sigmoidoscopy**

An option for screening in people at average risk of colorectal cancer. Involves viewing the rectum and last section of the colon to look for abnormal areas.

### **high-definition white light endoscopy (HD-WLE)**

A procedure to look inside the colon with a device that creates very clear images and is guided through the anus.

### **fecal occult blood test (FOBT)**

A lab test that looks for tiny amounts of blood in stool.

### **hyperplastic polyp**

A type of serrated polyp. Large hyperplastic polyps may increase the risk of colorectal cancer.

### **inflammatory bowel disease (IBD)**

A group of health conditions that cause long-term swelling in the digestive tract. Includes Crohn's colitis and ulcerative colitis.

### **laxative**

Drugs used to clean out the intestines.

### **lesion**

A flat area of abnormal cells.

### **Lynch syndrome**

A hereditary cancer syndrome that increases the risk of developing colorectal and other cancers.

### **mucosa**

The innermost layer of the colon wall.

### **multitargeted stool DNA test**

A lab test that looks for genetic markers of colorectal cancer in stool.

### **pathologist**

A doctor who's an expert in testing cells and tissue to find disease.

### **pedunculated polyp**

A polyp that sticks out from the bowel wall on a stalk.

**polyp**

A non-cancerous growth on the inner lining of the large bowel. Over time, certain types can form cancer.

**polypectomy**

A minor surgical procedure to remove polyps, usually during a colonoscopy.

**polyposis syndromes**

A group of cancer syndromes that cause colorectal polyps. The most common is familial adenomatous polyposis (FAP).

**primary sclerosing cholangitis (PSC)**

A rare, long-term disease that causes damage to the bile ducts. Increases the risk of colorectal cancer.

**rectum**

The last section of the large bowel. Stool is held here until it leaves the body through the anus.

**sessile polyp**

A polyp that doesn't stick out much from the bowel wall.

**sessile serrated polyp**

A flat polyp that has a high risk of becoming cancer. Has a saw-tooth cell pattern when viewed under a microscope. Can have clusters of dysplasia (pre-cancerous cells). Also called a sessile serrated lesion or sessile serrated adenoma.

**traditional serrated adenoma**

A rare polyp type that has a high risk of becoming cancer. Has a saw-tooth cell pattern when viewed under a microscope.

**ulcerative colitis**

A type of inflammatory bowel disease (IBD) that increases the risk of colorectal cancer.



**If you are diagnosed with colorectal cancer, taking aspirin every day may lengthen your life and improve cancer-related outcomes. Ask your health care provider if aspirin is right for you. Internal bleeding is a risk of taking aspirin.**

**virtual chromoendoscopy**

A procedure to look inside the colon with a light-filtering device that is guided through the anus. Also called optical visual chromoendoscopy.

# NCCN Contributors

This patient guide is based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Colorectal Cancer Screening, Version 1.2024. It was adapted, reviewed, and published with help from the following people:

**Dorothy A. Shead, MS**  
Senior Director  
Patient Information Operations

**Erin Vidic, MA**  
Senior Medical Writer, Patient Information

**Susan Kidney**  
Senior Graphic Design Specialist

The NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Colorectal Cancer Screening, Version 1.2024 were developed by the following NCCN Panel Members:

**Reid M. Ness, MD, MPH/Chair**  
Vanderbilt-Ingram Cancer Center

**Xavier Llor, MD, PhD/Vice Chair**  
Yale Cancer Center/Smilow Cancer Hospital

**Mohammad Ali Abbass, MD, MPH**  
Robert H. Lurie Comprehensive Cancer  
Center of Northwestern University

**Shrinivas Bishu, MD**  
University of Michigan Rogel Cancer Center

**Christopher T. Chen, MD**  
Stanford Cancer Institute

**\*Gregory Cooper, MD**  
Case Comprehensive Cancer Center/  
University Hospitals Seidman Cancer Center  
and Cleveland Clinic Taussig Cancer Institute

**Dayna S. Early, MD**  
Siteman Cancer Center at Barnes-  
Jewish Hospital and Washington  
University School of Medicine

**Mark Friedman, MD**  
Moffitt Cancer Center

**David Fudman, MD**  
UT Southwestern Simmons  
Comprehensive Cancer Center

**Francis M. Giardiello, MD, MBA**  
Johns Hopkins Kimmel Cancer Center

**Kathryn Glaser, PhD, MA**  
Roswell Park Comprehensive Cancer Center

**Surya Gurudu, MD**  
Mayo Clinic Comprehensive Cancer Center

**Michael Hall, MD, MS**  
Fox Chase Cancer Center

**Lyen C. Huang, MD, MPH**  
Huntsman Cancer Institute  
at the University of Utah

**Rachel Issaka, MD, MAS**  
Fred Hutchinson Cancer Center

**\*Bryson Katona, MD, PhD**  
Abramson Cancer Center  
at the University of Pennsylvania

**Trilokesh Kidambi, MD**  
City of Hope National Medical Center

**Audrey J. Lazenby, MD**  
Fred & Pamela Buffett Cancer Center

**Jennifer Maratt, MD, MS**  
Indiana University Melvin and Bren Simon  
Comprehensive Cancer Center

**Arnold J. Markowitz, MD**  
Memorial Sloan Kettering Cancer Center

**Joseph Marsano, MD**  
UC Davis Comprehensive Cancer Center

**Folasade P. May, MD, PhD, MPhil**  
UCLA Jonsson  
Comprehensive Cancer Center

**\*Robert J. Mayer, MD**  
Dana-Farber/Brigham and Women's Cancer  
Center | Mass General Cancer Center

**Kinga Olortegui, MD**  
The UChicago Medicine  
Comprehensive Cancer Center

**Swati Patel, MD, MS**  
University of Colorado Cancer Center

**Shajan Peter, MD**  
O'Neal Comprehensive  
Cancer Center at UAB

**\*Laura D. Porter, MD**  
Independent Patient Advocate

**Mehnaz Shafi, MD**  
The University of Texas  
MD Anderson Cancer Center

**Peter P. Stanich, MD**  
The Ohio State University Comprehensive  
Cancer Center - James Cancer Hospital  
and Solove Research Institute

**Jonathan Terdiman, MD**  
UCSF Helen Diller Family  
Comprehensive Cancer Center

**Peter Vu, MD**  
UC San Diego Moores Cancer Center

**\*Jennifer M. Weiss, MD, MS**  
University of Wisconsin  
Carbone Cancer Center

**Elizabeth Wood, MD**  
St. Jude Children's Research Hospital/  
The University of Tennessee  
Health Science Center

## NCCN Staff

**Carly J. Cassara, MSc**  
Guidelines Layout Specialist

**Susan Darlow, PhD**  
Senior Manager, Guidelines Information  
Standardization

\* Reviewed this patient guide. For disclosures, visit [NCCN.org/disclosures](https://www.nccn.org/disclosures).

# NCCN Cancer Centers

**Abramson Cancer Center**  
at the University of Pennsylvania  
Philadelphia, Pennsylvania  
800.789.7366 • [pennmedicine.org/cancer](https://pennmedicine.org/cancer)

**Case Comprehensive Cancer Center/**  
**University Hospitals Seidman Cancer Center and**  
**Cleveland Clinic Taussig Cancer Institute**  
Cleveland, Ohio  
UH Seidman Cancer Center  
800.641.2422 • [uhhospitals.org/services/cancer-services](https://uhhospitals.org/services/cancer-services)  
CC Taussig Cancer Institute  
866.223.8100 • [my.clevelandclinic.org/departments/cancer](https://my.clevelandclinic.org/departments/cancer)  
Case CCC  
216.844.8797 • [case.edu/cancer](https://case.edu/cancer)

**City of Hope National Medical Center**  
Duarte, California  
800.826.4673 • [cityofhope.org](https://cityofhope.org)

**Dana-Farber/Brigham and Women's Cancer Center |**  
**Mass General Cancer Center**  
Boston, Massachusetts  
877.442.3324 • [youhaveus.org](https://youhaveus.org)  
617.726.5130 • [massgeneral.org/cancer-center](https://massgeneral.org/cancer-center)

**Duke Cancer Institute**  
Durham, North Carolina  
888.275.3853 • [dukecancerinstitute.org](https://dukecancerinstitute.org)

**Fox Chase Cancer Center**  
Philadelphia, Pennsylvania  
888.369.2427 • [foxchase.org](https://foxchase.org)

**Fred & Pamela Buffett Cancer Center**  
Omaha, Nebraska  
402.559.5600 • [unmc.edu/cancercenter](https://unmc.edu/cancercenter)

**Fred Hutchinson Cancer Center**  
Seattle, Washington  
206.667.5000 • [fredhutch.org](https://fredhutch.org)

**Huntsman Cancer Institute at the University of Utah**  
Salt Lake City, Utah  
800.824.2073 • [healthcare.utah.edu/huntsmancancerinstitute](https://healthcare.utah.edu/huntsmancancerinstitute)

**Indiana University Melvin and Bren Simon**  
**Comprehensive Cancer Center**  
Indianapolis, Indiana  
888.600.4822 • [www.cancer.iu.edu](https://www.cancer.iu.edu)

**Johns Hopkins Kimmel Cancer Center**  
Baltimore, Maryland  
410.955.8964  
[www.hopkinsmedicine.org/kimmel-cancer-center](https://www.hopkinsmedicine.org/kimmel-cancer-center)

**Mayo Clinic Comprehensive Cancer Center**  
Phoenix/Scottsdale, Arizona  
Jacksonville, Florida  
Rochester, Minnesota  
480.301.8000 • Arizona  
904.953.0853 • Florida  
507.538.3270 • Minnesota  
[mayoclinic.org/cancercenter](https://mayoclinic.org/cancercenter)

**Memorial Sloan Kettering Cancer Center**  
New York, New York  
800.525.2225 • [mskcc.org](https://mskcc.org)

**Moffitt Cancer Center**  
Tampa, Florida  
888.663.3488 • [moffitt.org](https://moffitt.org)

**O'Neal Comprehensive Cancer Center at UAB**  
Birmingham, Alabama  
800.822.0933 • [uab.edu/onealcancercenter](https://uab.edu/onealcancercenter)

**Robert H. Lurie Comprehensive Cancer Center of**  
**Northwestern University**  
Chicago, Illinois  
866.587.4322 • [cancer.northwestern.edu](https://cancer.northwestern.edu)

**Roswell Park Comprehensive Cancer Center**  
Buffalo, New York  
877.275.7724 • [roswellpark.org](https://roswellpark.org)

**Siteman Cancer Center at Barnes-Jewish Hospital**  
**and Washington University School of Medicine**  
St. Louis, Missouri  
800.600.3606 • [siteman.wustl.edu](https://siteman.wustl.edu)

**St. Jude Children's Research Hospital/**  
**The University of Tennessee Health Science Center**  
Memphis, Tennessee  
866.278.5833 • [stjude.org](https://stjude.org)  
901.448.5500 • [uthsc.edu](https://uthsc.edu)

**Stanford Cancer Institute**  
Stanford, California  
877.668.7535 • [cancer.stanford.edu](https://cancer.stanford.edu)

**The Ohio State University Comprehensive Cancer Center -**  
**James Cancer Hospital and Solove Research Institute**  
Columbus, Ohio  
800.293.5066 • [cancer.osu.edu](https://cancer.osu.edu)

**The UChicago Medicine Comprehensive Cancer Center**  
Chicago, Illinois  
773.702.1000 • [uchicagomedicine.org/cancer](https://uchicagomedicine.org/cancer)

**The University of Texas MD Anderson Cancer Center**  
Houston, Texas  
844.269.5922 • [mdanderson.org](https://mdanderson.org)



UC Davis Comprehensive Cancer Center  
Sacramento, California  
916.734.5959 • 800.770.9261  
[health.ucdavis.edu/cancer](http://health.ucdavis.edu/cancer)

UC San Diego Moores Cancer Center  
La Jolla, California  
858.822.6100 • [cancer.ucsd.edu](http://cancer.ucsd.edu)

UCLA Jonsson Comprehensive Cancer Center  
Los Angeles, California  
310.825.5268 • [uclahealth.org/cancer](http://uclahealth.org/cancer)

UCSF Helen Diller Family  
Comprehensive Cancer Center  
San Francisco, California  
800.689.8273 • [cancer.ucsf.edu](http://cancer.ucsf.edu)

University of Colorado Cancer Center  
Aurora, Colorado  
720.848.0300 • [coloradocancercenter.org](http://coloradocancercenter.org)

University of Michigan Rogel Cancer Center  
Ann Arbor, Michigan  
800.865.1125 • [rogelcancercenter.org](http://rogelcancercenter.org)

University of Wisconsin Carbone Cancer Center  
Madison, Wisconsin  
608.265.1700 • [uwhealth.org/cancer](http://uwhealth.org/cancer)

UT Southwestern Simmons  
Comprehensive Cancer Center  
Dallas, Texas  
214.648.3111 • [utsouthwestern.edu/simmons](http://utsouthwestern.edu/simmons)

Vanderbilt-Ingram Cancer Center  
Nashville, Tennessee  
877.936.8422 • [vicc.org](http://vicc.org)

Yale Cancer Center/Smilow Cancer Hospital  
New Haven, Connecticut  
855.4.SMILOW • [yalecancercenter.org](http://yalecancercenter.org)



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