National Comprehensive Cancer Network®

2026

NCCN Guidelines for Patients®

Cancer care recommendations from leading experts at the National Comprehensive Cancer Network® (NCCN®)

Colon Cancer



Presented with support from NCCN FOUNDATION® Guiding Treatment. Changing Lives.

Available online at NCCN.org/patientguidelines



NCCN Guidelines for Patients®

The essential guide for people facing cancer.

Based on care recommendations from leading cancer experts.

Explains high-quality cancer care provided at state-of-the-art cancer centers.

Reviewed and revised every year.

Did you know that top cancer centers across the United States work together to improve cancer care? This alliance of leading cancer centers is called the National Comprehensive Cancer Network® (NCCN®).

Because cancer care is always evolving, NCCN develops and frequently updates evidence-based cancer care recommendations used by health care providers worldwide. These recommendations are known as the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®).

The NCCN Guidelines for Patients plainly explain these expert recommendations, so you can talk with your care team about the best care for you.

These NCCN Guidelines for Patients are based on the NCCN Guidelines® for Colon Cancer, Version 2.2026 —April 7, 2026.

View the NCCN Guidelines for Patients free online: NCCN.org/patientguidelines

Find an NCCN Cancer Center near you: NCCN.org/cancercenters

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Fight Colorectal Cancer (Fight CRC) is a leading patient-empowerment and advocacy organization providing balanced and objective information on colon and rectal cancer research, treatment, and policy. Serving as relentless champions of hope, focused on funding promising, high-impact research endeavors while equipping advocates to influence legislation and policy for the collective good. Learn more at FightCRC.org and follow-on social media @FightCRC!

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NCCN Foundation seeks to support the millions of patients and their families affected by a cancer diagnosis by funding and distributing NCCN Guidelines for Patients. NCCN Foundation is also committed to advancing cancer treatment by funding the nation's promising doctors at the center of innovation in cancer research. For more details and the full library of patient and caregiver resources, visit NCCN.org/patients.

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About colon cancer

5 What is colon cancer?

5 What are polyps?

6 How is colon cancer treated?

7 How can I get the best care?

This guide describes treatment for adenocarcinoma, the most common type of colon cancer.

What is colon cancer?

Colon cancer is a disease that forms in the large intestine, also called the large bowel. The colon absorbs water from the food you eat, turning it into stool. Stool stays in the last 5 to 6 inches of the large intestine (the rectum) until it leaves the body through the anus.

Cancer starts as microscopic abnormal cells in the innermost layer of the colon wall. If not found and treated early, cancer cells can grow into the deeper layers of the colon wall and then into nearby areas of the body.

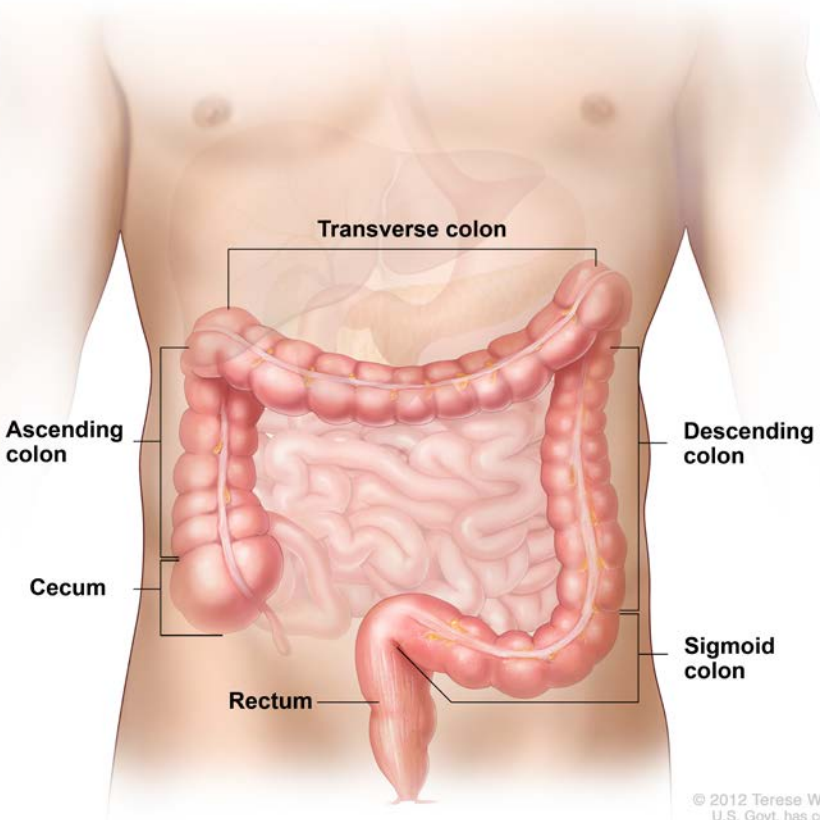
Cancer cells can also break off from the colon tumor and travel through lymph or blood to nearby lymph nodes or to distant organs, typically the liver or lungs.

What are polyps?

Polyps are non-cancerous growths that form on the innermost lining of the intestine. The most common type of polyp is called an adenoma. While it may take many years, adenomas can become invasive colon cancer,

The colon

Colon cancers are often described as left- or right-sided, depending on where they start in the colon. Right-sided tumors start in the cecum, ascending colon, or the right half of the transverse colon. Left-sided tumors form in the descending colon, sigmoid colon, or the left side of the transverse colon.



called adenocarcinoma. Adenocarcinoma is the most common type of colon cancer.

Polyps that rarely turn into cancer include hyperplastic and inflammatory polyps.

Removing polyps can prevent cancer before it starts. Most can be removed during a colonoscopy using a minor endoscopic procedure called a polypectomy. Polyps can also be tested to make sure cancer hasn't already started to form.

For more information on finding polyps early, see *NCCN Guidelines for Patients: Colorectal Cancer Screening,* available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



How is colon cancer treated?

A minor endoscopic procedure called a polypectomy may be the only treatment needed for a polyp in which cancer has just started to grow.

If the cancer is too large or deep to be removed by polypectomy, surgery to remove the cancerous part of the colon is needed. Treatment with systemic therapy (anti-cancer medicines) may follow surgery, depending on the cancer stage. The stage is determined by surgery.

What's in this resource?

- Testing the tumor for an important feature called mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H)
- Developing a care plan based on whether the cancer is dMMR or MSI-H, and other testing results
- Treatment for polyps with cancer and all stages of colon cancer
- Survivorship

Colon cancer that has spread to the liver, lungs, or abdomen at diagnosis is stage 4 and metastatic. Most people receive treatment with systemic therapy. While many stage 4 cancers can't be cured, long-term remission or cure is possible when all areas of cancer can be removed or treated with local therapies.

The results of testing the cancer for unique features helps your doctor decide which systemic therapies may work best. For metastatic cancers with a feature called mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H), immunotherapy is recommended if you're eligible.

How can I get the best care?

Advocate for yourself. You have an important role to play in your care. Many people feel more satisfied when they actively take part in planning their cancer care.

The NCCN Guidelines for Patients will help you play a larger role in your care. Discuss the recommendations in this guide with your care team. Ask questions about your options and share your goals and concerns.

Don't know what to ask? You're not alone. That's why we include suggested questions to ask at the end of chapters. Keep reading to find the best care for you.

How this guide can help you

Making decisions about cancer care is stressful. There's a lot to learn, and you don't know what the future holds.

Use this guide to get the information and support you need.

Patients, doctors, and other health care professionals trust the NCCN Guidelines for Patients. This guide uses clear, everyday language to explain current cancer care recommendations made by respected experts in the field. Their recommendations are based on the latest research and practices at leading cancer centers.

Your health is unique to you, so your cancer care should be, too. As you read this guide, you'll learn which treatments are likely to provide the best results for you. And you'll be better prepared to talk with your care team.

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11 Mismatch repair testing

11 Family health history

11 PI3K pathway testing

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16 Questions to ask

Your care team will make a treatment plan just for you. First, they will do tests to learn about the cancer and your general health. All colon cancers should be tested for alterations (changes) in genes that fix damaged DNA, called mismatch repair (MMR) genes.

If colon cancer is suspected, testing as described in this chapter is recommended. Also see **Guide 1.**

Guide 1
Tests to diagnose colon cancer and make your treatment plan

Tests for diagnosis and planning your care	• Colonoscopy • Biopsy • CT of your chest, abdomen, and pelvis • Testing the tumor to determine mismatch repair (MMR) or microsatellite instability (MSI) status • Testing the tumor for alterations in the PI3K pathway (to make decisions about taking aspirin after treatment to prevent recurrence) • Blood tests: Complete blood count (CBC), comprehensive metabolic panel (CMP), carcinoembryonic antigen (CEA) • Determining your risk of hereditary cancers and syndromes, and possibly genetic testing • A check of your mental wellness and distress level
Other tests or care you may receive, if needed	• MRI of your abdomen and pelvis • Testing for *DPYD* gene variants that cause dihydropyrimidine dehydrogenase (DPD) deficiency, if your treatment plan includes chemotherapy • Help to quit smoking • Family planning and options for preserving fertility • Additional imaging, if your doctor suspects the cancer has spread to lymph nodes or distant organs

Colonoscopy

Most colon cancers are found during colonoscopy. This procedure allows a health care provider, usually a gastroenterologist, to examine the entire large bowel.

If they see any polyps or suspicious areas of tissue, they will remove them during the procedure using a cutting tool. This is called a polypectomy. If a larger abnormal growth is seen, they will remove a small piece. This is called a biopsy.

An expert called a pathologist will look for cancer cells in the polyp(s) and biopsy samples using a microscope. If any are found, they will make a cancer diagnosis.

The diagnosis and other findings will be included in a document called a pathology report. Ask your provider for a copy or for instructions on how to access the results electronically.

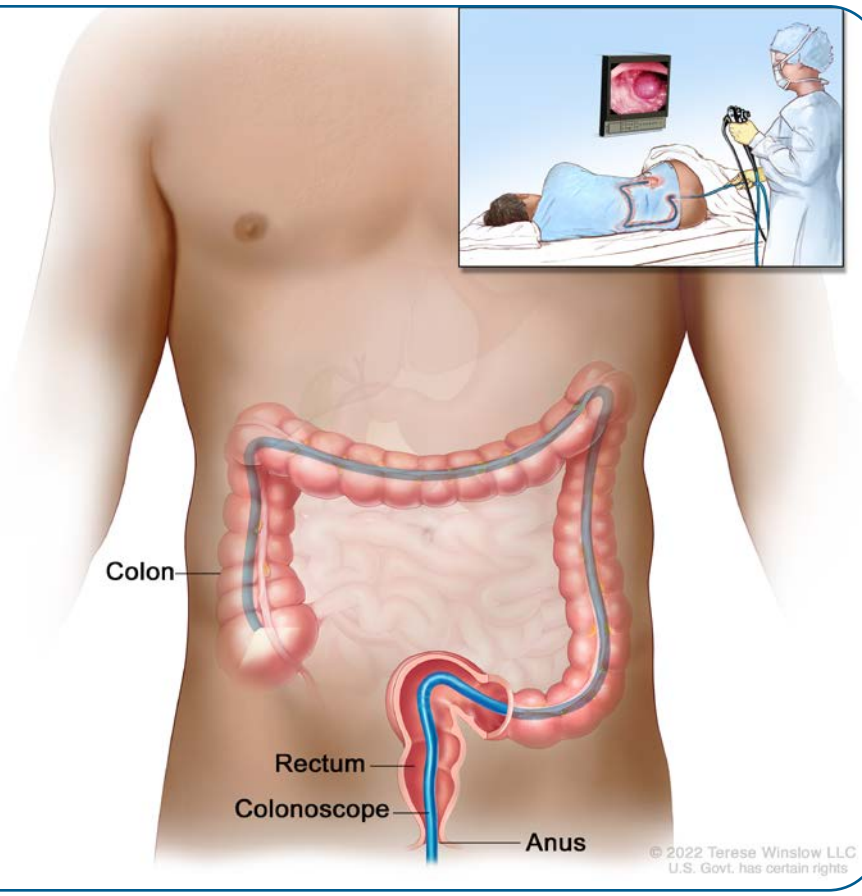
For more information on screening colonoscopy and what to expect, see *NCCN Guidelines for Patients: Colorectal Cancer Screening*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Colonoscopy

A colonoscopy is a procedure that allows a doctor (usually a gastroenterologist) to see, remove, or biopsy any polyps or abnormal tissue from the colon.

They insert a thin device through the anus, up the rectum, and into the colon. The device has a light, a camera, and a cutting tool.



Mismatch repair testing

All colon cancers should be tested for alterations (changes) in genes that normally find and fix damaged DNA, called mismatch repair (MMR) genes. Testing involves analyzing a piece of the colon tumor in a lab.

Depending on the testing method used, an abnormal result is called either mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H). These cancers have a high number of mutated (changed) genes and respond differently to colon cancer treatments.

Most colon cancers don't have either of these features and are described as mismatch repair proficient (pMMR) or microsatellite stable (MSS).

Family health history

Your provider will ask about the health history of your biological (related by blood) family members. People who have a first-degree relative with colon cancer are more likely to have this cancer than those without a family history of colon cancer.

Most colon cancers occur for unknown reasons. While rare, some people are born with a disorder that makes them more likely to get colon and other cancers. These are called inherited cancer syndromes. Two such conditions include Lynch syndrome and familial adenomatous polyposis (FAP).

People born with Lynch syndrome are at high risk of developing colorectal, endometrial, and ovarian cancers. Lynch syndrome is caused by inherited differences in the MMR genes. For cancers found to have the dMMR or MSI-H biomarker, testing for Lynch syndrome is recommended.

FAP causes many polyps to form in the colon and rectum. The polyps start as benign growths, but can become invasive colon cancer over time. Cancer often develops by age 50 in people with FAP.

Genetic testing for hereditary cancer risk

If an inherited cancer or cancer syndrome is suspected, your provider may refer you to a genetic counselor. This expert can speak with you and your family about being tested for syndromes related to colon cancer.

To be tested, you must provide a sample of blood or saliva. A pathologist tests the sample for germline (hereditary) gene differences that cause these syndromes. Speaking with a genetic counselor is recommended for any positive genetic testing result.

PI3K pathway testing

Some colon tumors have alterations in genes in the PI3K pathway. Genes in this pathway include *PI3KCA* and *PTEN*. Changes in these genes can activate an enzyme (PI3K) that causes the cancer to grow quickly and return after treatment.

Cancer experts have found that in cancers with these changes, taking aspirin daily for 3 years after surgery and other recommended treatment helps prevent the return of cancer.

Confirm with your care team that the colon tumor will be tested for somatic (non-hereditary) alterations that activate PI3K.

Testing for DPD deficiency

Capecitabine and fluorouracil (5-FU) are chemotherapy medicines called fluoropyrimidines. They are often used to treat colon cancer. Your body uses a special enzyme (protein) called DPD to break down these medicines so they can work properly and leave your body safely and efficiently. DPD stands for dihydropyrimidine dehydrogenase.

Around 1 in 15 people inherit a difference in the gene that makes DPD, the *DPYD* gene. This leads to less DPD protein being made and is called DPD deficiency. In these people, fluoropyrimidines can build up to the point of causing severe and sometimes life-threatening side effects, referred to as fluoropyrimidine toxicity.

Signs and symptoms often start within several days of the first fluoropyrimidine treatment. Symptoms include mouth sores, abdominal pain, blood in the stool, nausea, vomiting, and diarrhea. The skin on the palms of your hands and soles of your feet may start peeling and become red, swollen, and painful. Other possible side effects include shortness of breath and hair loss.

If you develop any of these symptoms in the days after receiving capecitabine or 5-FU, contact your care team right away. There is a U.S. FDA-approved treatment for this uncommon side effect of fluoropyrimidines.

If treatment with a fluoropyrimidine is planned, talk to your provider about fluoropyrimidine toxicity. After understanding your risk, you may choose to have genetic testing to learn if you have a gene variant that causes DPD deficiency.

"I learned that getting a second opinion had nothing to do with trusting my doctor. It was the process of getting all the information I needed to make the best decisions for my treatment."



Imaging

Imaging tests can show areas of cancer inside the body. A radiologist interprets the images and conveys the results to your oncologist. Your care team will tell you how to prepare for your scans. If you get nervous in tight spaces, let them know. You may be offered a type of medicine called a sedative to help you relax.

CT

CT is good at showing lymph nodes and other areas of possible cancer spread. During the scan, you'll lie face up on a table that moves through a tunnel-like machine. You'll be able to hear and speak with a technician at all times.

A substance called contrast is used to make the pictures clearer. It is injected into your vein and mixed with a liquid to drink. Tell your provider if you've had problems with contrast in the past.

MRI

MRI isn't often used to plan treatment for colon cancer. Your provider may order an MRI to get a better look at the liver or rectum, or if the CT scan results are unclear.

Getting an MRI is much like getting a CT scan, but it doesn't involve x-rays. It also takes longer to complete and may cause your body to feel warm. Some imaging centers use medication to slow the movement of your bowels. If an MRI is planned, ask your care team what to expect.

CT scan

CT is good at showing lymph nodes and other areas of possible cancer spread. During the scan, you will lie face-up on a table that moves through a tunnel-like machine. You will be able to hear and speak with a technician at all times.



Blood tests

Bloodwork for suspected colon cancer typically includes a complete blood count (CBC) and blood chemistry profile. These tests provide a snapshot of your general health.

Testing for carcinoembryonic antigen (CEA) is also recommended. People with colon cancer may have a higher level of this protein in their blood at diagnosis. But some people have higher CEA levels for different reasons.

After treatment, the CEA level may be checked on a regular basis as part of a complete surveillance strategy.

Fertility and family planning

For unknown reasons, colon cancer is being diagnosed more often in young adults. Some cancer treatments make it hard or impossible to have children. If you are interested in potentially having children in the future, tell your care team before treatment begins. They will discuss any fertility-related risks of your treatment plan with you.

Some methods for preserving (keeping) fertility before cancer treatment are described below. Your provider may refer you for counseling about fertility preservation options.

Sperm banking

Sperm banking stores semen for later use by freezing it in liquid nitrogen. Another name for sperm banking is semen cryopreservation.

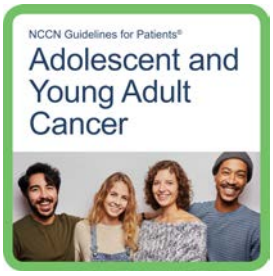
Egg freezing

Unfertilized eggs can be removed, frozen, and stored for later use. This is called egg freezing or oocyte cryopreservation.

Ovarian tissue banking

This method involves removing part or all of an ovary and freezing the part that contains the eggs. The frozen tissue that contains the eggs can later be unfrozen and put back in the body.

For more information on fertility and family planning, see *NCCN Guidelines for Patients: Adolescent and Young Adult Cancer*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



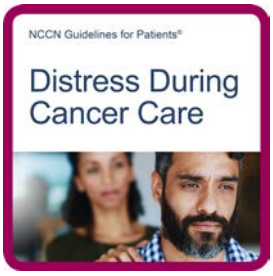
Key points

- All colon tumors should be tested for mismatch repair deficiency (dMMR) or microsatellite instability-high (MSI-H). Cancers that don't have either of these biomarkers are described as mismatch repair proficient (pMMR) or microsatellite stable (MSS).
- If the cancer is found to have the dMMR or MSI-H biomarkers, genetic testing (of your blood or saliva) for Lynch syndrome is recommended.
- A complete blood count (CBC), chemistry profile, and carcinoembryonic antigen (CEA) test are recommended as part of initial testing.
- To see if cancer has spread to nearby lymph nodes or other major organs, CT imaging of your chest, abdomen, and pelvis is recommended.
- Testing the tumor for alterations in the PI3K pathway helps determine if you should take aspirin daily after surgery to prevent recurrence.
- If your treatment plan is likely to include fluoropyrimidine chemotherapy, you may choose to be tested for inherited gene differences that cause DPD deficiency.
- If you want the option of having children in the future or are unsure, ask your care team about fertility-related risks of your treatment plan and options for preserving your fertility.

Distress

Depression, anxiety, fear, and distress are common after a cancer diagnosis. These feelings can make it harder to deal with cancer and its treatment. If you're worried, overwhelmed, or hopeless, ask your care team for help.

More information about cancer and distress is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Questions to ask

- Does the cancer have the dMMR or the MSI-H biomarker?
- Is the tumor left- or right-sided? Is this important?
- Colon cancer runs in my family. What does this mean for my care?
- My doctor said I need fluoropyrimidine chemotherapy. Is it safe, and should I be tested for DPD deficiency?
- What if I am pregnant now, or hope to be in the future?



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.
NCCN.org/patients/feedback

3

Treatment for non-metastatic colon cancer

18 Polyps with cancer

19 Invasive cancer

21 Staging

22 Chemotherapy after surgery

23 Surveillance

24 Key points

24 Questions to ask

This chapter explains treatment for polyps with cancer and for colon cancers that haven't spread to the liver, lungs, or abdominal lining.

Polyps with cancer

There are 2 main shapes of polyps. Pedunculated polyps grow on a stem and have a rounded top. Sessile polyps are flatter and don't stick out from the bowel wall. If cancer has just started to form in a polyp, it's described as a malignant polyp.

Most polyps can be removed during a colonoscopy using a minor endoscopic procedure called a polypectomy. In many cases, no further treatment is needed. In other cases, resection (surgery) to remove a larger piece of the colon is necessary.

Your doctor will consider the following factors to determine whether resection is needed after polypectomy:

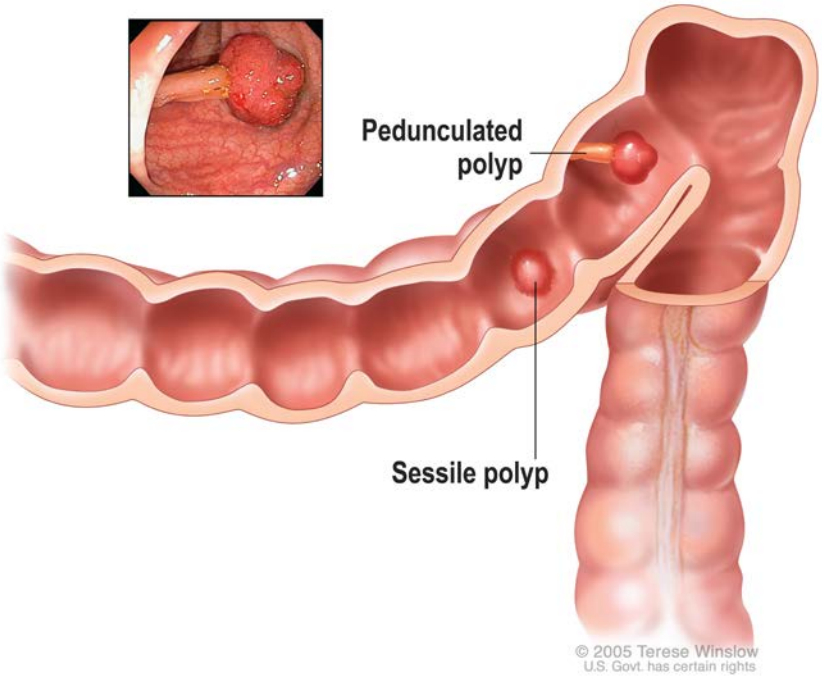
- The size and shape of the polyp
- The polypectomy results
- The results of testing the removed tissue

After a low-risk polyp is removed by polypectomy, surveillance will begin as described below.

Surveillance after polypectomy

After a polypectomy, follow-up testing is recommended as follows:

- **Colonoscopy in 1 year**
- **Physical exams with proctoscopy every 3 to 6 months for 2 years**



Invasive cancer

If the cancer has grown too deep into the colon wall to be removed by polypectomy, colectomy (surgery) is needed. Surgery is an option only if the tumor can be completely removed.

If you can't have surgery first because of where the tumor is located or other reasons, systemic therapy (chemotherapy or immunotherapy) is recommended first. Systemic therapy may also be recommended first for advanced cancer, or cancer that has spread to lymph nodes.

If systemic therapy is planned first, chemotherapy is recommended for mismatch repair proficient (pMMR) or microsatellite stable (MSS) cancers. Immunotherapy with a checkpoint inhibitor is preferred for cancers with mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H).

Sometimes radiation therapy (alone or with chemotherapy) is given along with systemic therapy for unresectable cancers.

Colectomy

Surgery to remove the part of the colon with cancer is called colectomy. Your surgeon will also remove the fatty tissue that supports the colon and contains blood vessels and lymph nodes, called the mesentery. If the cancer has grown into adjacent tissues or organs, they will need to be removed together (en bloc) at the time of surgery. The 2 healthy ends of the remaining colon are then sewn or stapled together.

A colectomy can be done in 2 ways. The open method removes tumor tissue through a large cut in your abdomen. The minimally invasive method, either laparoscopic or robotic, involves making a few small cuts. Tools including a video camera are inserted through the cuts to see and remove part of your colon.

The tissue removed during surgery is sent to a pathologist. The pathologist determines how far the cancer has grown within the colon wall. They also test the removed lymph nodes for cancer. These results are used to assign the cancer a stage. The stage helps determine whether you need chemotherapy after surgery.



Your care team will give you information on:

- How to prepare for surgery
- What to expect during and after surgery
- Recovery
- Possible short- and long-term side effects of colectomy, including:
  - Leaking from the spot where the colon was reconnected (anastomotic leak)
  - Changes in bowel habits
  - Bowel blocked by scar tissue
  - Organs pushing through tissues or muscles weakened by surgery (hernia)

Colostomy

At the time of colectomy, some people may also have a procedure called a colostomy. This is done in cases where it may not be safe to reconnect the remaining sections of the colon. In a colostomy, the remaining upper part of the colon is attached to an opening on the surface of the abdomen. This opening is called a stoma.

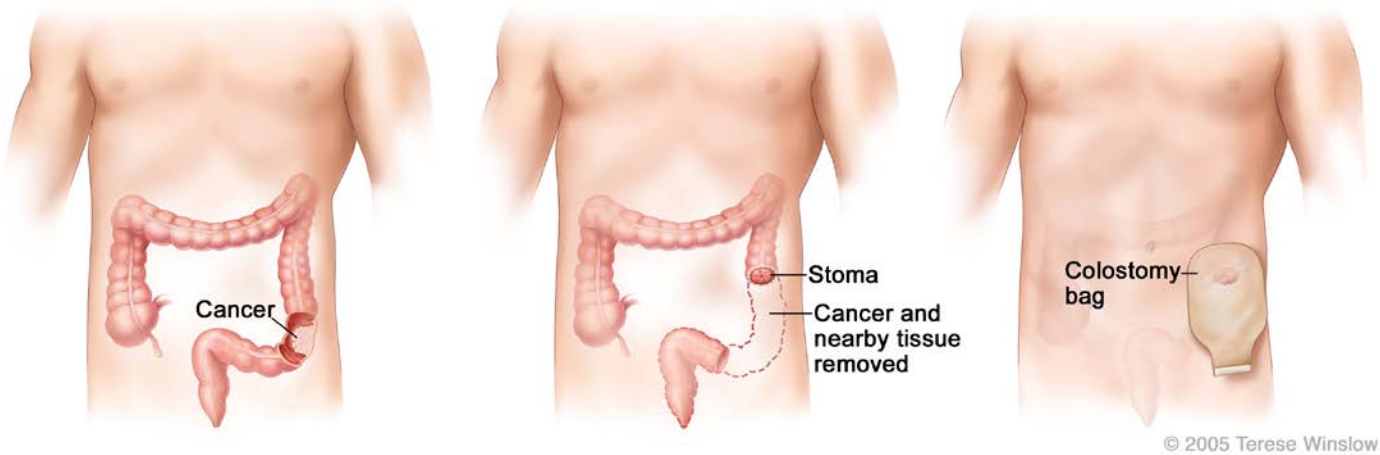
Stool exits the body through the stoma and enters a bag attached to the skin. This is typically only needed for a short time. For colon cancer surgery, the colostomy can often be reversed with another operation. Colostomy is also known as diversion because it diverts (redirects) the flow of stool.

If the tumor is blocking the flow of stool

Tumors growing in or around the bowel can block stool from moving and leaving the body. The bowel can often be unblocked using one of several surgical techniques, or with a mesh metal tube called a stent.

Colostomy

If the two healthy ends of the remaining colon can't be safely reconnected after the cancer is removed, a colostomy may be performed. A colostomy connects a part of the colon to an opening in the abdomen (a stoma) that allows stool to pass through. For colon cancer surgery, a colostomy is often reversed with another operation. This depends on several factors and may require a long wait time to allow the colon to heal.



Staging

The stage describes the extent of cancer in the body. The American Joint Committee on Cancer (AJCC) tumor, node, metastasis (TNM) system is used to stage colon cancer. In the AJCC system, the following key pieces of information about the cancer are used for staging:

- **T:** How far the tumor has grown into or through the colon wall
- **N:** Whether any lymph nodes have cancer
- **M:** Whether the cancer has spread to areas or organs outside the colon (metastasized)

The T, N, and M scores are combined to assign the cancer one of the following stages: 0, I (1), II (2), III (3), or IV (4).

Stage 0

There are abnormal cells on the innermost layer of the colon wall. These abnormal cells may become cancer and spread into deeper layers of the colon wall. Stage 0 colon cancer is also called carcinoma in situ of the colon.

Stage 1

The cancer has grown into either the second or third layer of the colon wall. There is no cancer in nearby lymph nodes or in areas outside the colon.

Stage 2

The cancer has grown into, or beyond, the fourth layer of the colon wall. There is no cancer in nearby lymph nodes or in areas outside the colon.



Team approach

When possible, treatment for colon cancer is best delivered by a team of experts in the following specialties:

- Digestive health (gastroenterology)
- Chemotherapy (medical oncology)
- Surgery (surgical oncology)
- Radiotherapy (radiation oncology)
- Imaging (radiology)

Stage 3

The cancer has spread from the colon to nearby lymph nodes or there are tumor deposits. Tumor deposits are small tumors in the fat around the colon.

Stage 4

The cancer has spread to areas outside the colon and nearby lymph nodes. Colon cancer spreads most often to the liver and/or lungs.

Chemotherapy after surgery

Depending on the cancer stage, you may receive chemotherapy after surgery. This is called adjuvant chemotherapy. The aim is to kill any cancer cells left in the body. After chemotherapy (if needed), surveillance begins.

Stage 1

You don't need chemotherapy. Surveillance will begin.

Stage 2

Your doctor may (or may not) recommend chemotherapy. They will consider the cancer sub-stage (2A, 2B, or 2C), the mismatch repair status, and any high-risk features found in the tumor.

Stage 3

Chemotherapy is recommended after surgery for all stage 3 cancers. Either FOLFOX or CAPEOX is typically preferred for most people, but milder options for pMMR or MSS cancers include capecitabine and fluorouracil.

For dMMR or MSI-H cancers, an immunotherapy drug called atezolizumab (Tecentriq) may be given with chemotherapy. For more information on immunotherapy, see *Chapter 4: Treatment for metastatic colon cancer*.

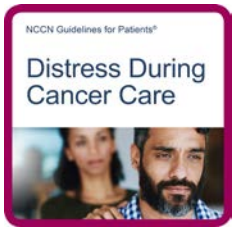
Adjuvant chemotherapy is typically given for 3 to 6 months. The length of treatment depends on the regimen and whether the cancer has features that make it likely to return.

Chemotherapy side effects

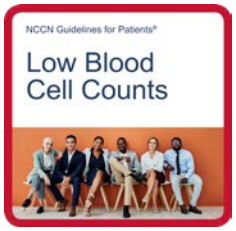
Common side effects of chemotherapy include hair loss, mouth sores, nerve damage, nausea, vomiting, low blood cell counts, and others.

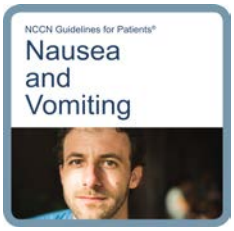
Ask your care team about ways to prevent or relieve side effects. For example, wearing frozen gloves and booties during chemotherapy infusions may lessen nerve damage in the hands and feet. Similarly, wearing a cooling cap on your scalp during infusions may prevent or lessen hair loss.

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.









Surveillance

Follow-up testing is started when there are no signs of cancer after treatment. It can help find new cancer growth early. Recommended surveillance is described below, according to the cancer stage.

In addition to surveillance testing, a range of other care is important for cancer survivors. For more information, see *Chapter 5: Survivorship.*

Stage 1

A colonoscopy is recommended 1 year after surgery for stage 1 cancers. The timing of your following colonoscopy will depend on these results.

You won't need imaging or other testing on a regular basis. If you develop symptoms or your provider suspects recurrence, they will order imaging.

Stages 2 and 3

In addition to colonoscopy, surveillance for stages 2 and 3 colon cancer includes physical exams, carcinoembryonic antigen (CEA) blood tests, and CT scans. The recommended surveillance schedule is shown in **Guide 2.**

Aspirin

For stage 2 and 3 cancers with alterations that activate PI3K, taking aspirin daily for 3 years after surgery is recommended to lower the risk of recurrence. You won't start taking it until you have recovered from surgery.

Stay active

Try to get moving after entering the surveillance phase of your care. Experts recommend at least 150 minutes of moderate to vigorous physical activity per week. Talk to your care team about options for meeting this goal that align with your lifestyle and physical abilities.

Guide 2
Surveillance after treatment for stage 2 and stage 3 cancers

Physical exam **CEA blood test**	**First 2 years:** Every 3 to 6 months **Next 3 years:** Every 6 months
CT of chest, abdomen, and pelvis	Every 6 to 12 months for 5 years
Colonoscopy	**If you didn't have a total colonoscopy at diagnosis:** Colonoscopy is recommended 3 to 6 months after surgery. **If you had a total colonoscopy at diagnosis:** Colonoscopy is recommended 1 year after surgery.

Key points

- Polypectomy may be the only treatment needed for a polyp that contains cancer. In other cases, surgery may be needed to remove a larger piece of the colon.
- Colectomy is needed for cancer that isn't found early enough to be removed by polypectomy. If the cancer is advanced or has spread to lymph nodes, systemic therapy may be given before surgery.
- If surgery isn't possible, treatment with systemic therapy is recommended.
- Chemotherapy is recommended after colectomy for all stage 3 cancers, regardless of mismatch repair status. For cancers with mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H), an immunotherapy drug may be given with chemotherapy.
- Surveillance to check for recurrence is recommended for 5 years after treatment. Depending on the stage, testing may include colonoscopies, physical exams, carcinoembryonic antigen (CEA) blood tests, and CT scans.
- For stage 2 and 3 cancers with alterations that activate PI3K, taking aspirin daily for 3 years after surgery is recommended to lower the risk of recurrence.

ctDNA Testing

After surgery to remove a colon tumor, microscopic pieces of DNA released by the tumor may remain in your bloodstream. This is called circulating tumor DNA (ctDNA). If ctDNA is detected in the blood after surgery, the cancer is likely to return at some point.

Researchers are actively studying if and how ctDNA results should be used to make treatment decisions. At this time, ctDNA testing should not replace standard surveillance or other recommended treatments.

Questions to ask

- Am I a candidate for surgery?
- Will I need chemotherapy or immunotherapy before surgery? For how long? What is the benefit?
- Do you recommend wearing a cooling cap during infusions to prevent hair loss?
- Do you recommend wearing cooling mitts and booties during infusions to minimize nerve damage?
- How likely is the cancer to return after treatment with surgery?

4

Treatment for metastatic colon cancer

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If not found and treated early, cancer cells will break off from the colon tumor and travel in lymph or blood to other areas of the body—usually the liver, lungs, lymph nodes, or abdomen. This process is called metastasis. Planning treatment for metastatic colon cancer starts with biomarker testing.

Biomarker testing

Colon cancers are not all the same. Testing the tumor for biomarkers (unique features) helps identify treatments that may work better for your specific cancer and helps avoid treatments that are less likely to help.

When possible, biomarker testing is performed on a piece of tumor tissue removed during a biopsy or surgery. Or, if needed, a sample of your blood can be tested instead.

All metastatic colon cancers should be tested for the following biomarkers:

- *KRAS* and *NRAS* mutations
- *BRAF* V600E mutations
- HER2 amplification
- Mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H)

Testing for many biomarkers at one time is called multigene panel testing (MGPT). In addition to the biomarkers listed above, MGPT can find others that are even less common, such as *POLE/POLD1* mutations, *RET* gene fusions, and *NTRK* gene fusions.

"My doctor reminded me that stress can't help me, but it can hurt me. It helped me remember to control those things I could control and relax in front of those that I could not control."



Local therapies

Your options for treating liver and lung tumors may include local therapies. These are treatments that remove or destroy tumors without damaging the surrounding area.

Some are interventional oncology/radiology techniques, also known as image-guided therapies. These techniques use imaging, such as ultrasound, CT, or PET, to deliver minimally invasive cancer treatments. Using imaging during the procedure allows your doctor to precisely target the tumor(s) and confirm treatment success.

To learn if treatment with surgery or other local therapies is an option, your case should be reviewed by a multidisciplinary team of experts. This team should include a surgeon experienced in removing liver and lung tumors and an interventional oncologist/radiologist.

Resection

Surgery to remove liver or lung tumors is called resection. Resection may be paired with ablation (described next) to completely remove small tumors.

If a liver resection is needed, your liver may need to be enlarged first. This is done using a minimally invasive procedure called portal vein embolization.

Tumor ablation

Image-guided ablation is a type of treatment that destroys small liver or lung tumors with minimal damage to surrounding normal tissue. It may be paired with surgery to completely remove a tumor or used alone for small tumors that can be fully removed or destroyed.

Thermal ablation methods use extreme heat (most common) or extreme cold to destroy tumors. Either an interventional radiologist or a surgeon places a special needle called a probe into or next to the tumor. The probe delivers energy to the tumor while minimizing damage to surrounding normal tissue.

A non-thermal method that uses electrical pulses may be helpful for tumors located in areas where resection or thermal ablation can't be used.

Intra-arterial therapies

If the cancer has spread mainly to the liver and other treatments haven't worked or can't be used, intra-arterial liver-directed therapies may be an option. These therapies treat liver tumors with:

- Chemotherapy beads (chemoembolization)
- Radioactive spheres (radioembolization)

Use of radioactive spheres is known as selective internal radiation therapy (SIRT) or transarterial hepatic radioembolization (TARE). These procedures are performed by interventional oncologists/radiologists.

In the rare cases where chemotherapy and radiation can't be used, beads that don't contain treatment may be used to physically block blood supply to the tumor. This is called bland embolization.

HAIC

Hepatic arterial infusion chemotherapy (HAIC) is chemotherapy given directly to the liver. Through use of a port or pump that's usually placed during surgery, the drugs are funneled

directly into the artery leading to the liver. HAIC should only be performed by medical oncologists with experience in this method.

Stereotactic body radiation therapy

Stereotactic body radiation therapy (SBRT) may be used to treat rectal cancer that has spread to the liver, lungs, or lymph nodes.

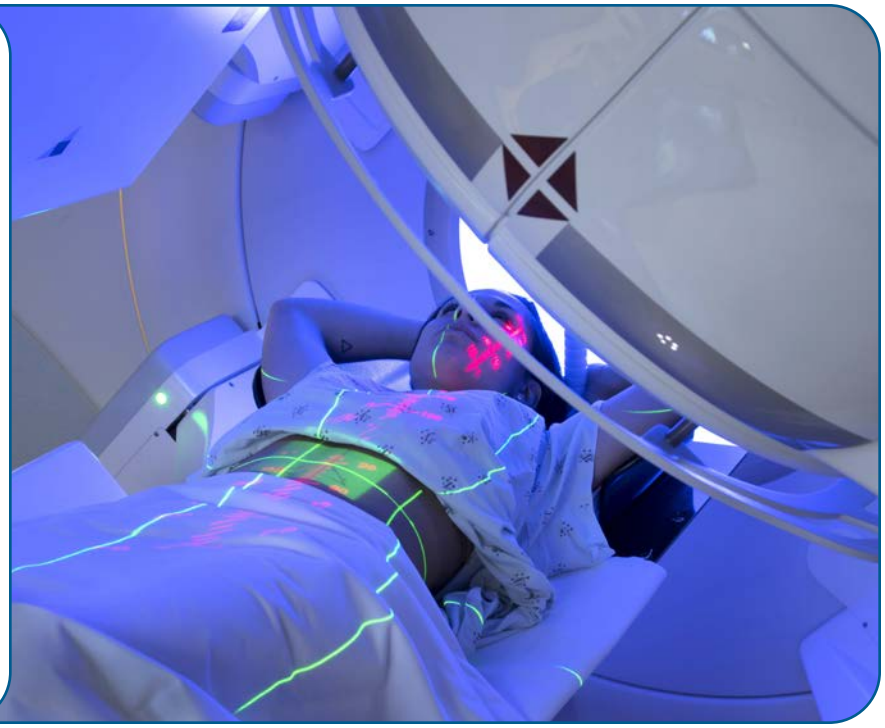
SBRT delivers high doses of radiation to metastatic tumor(s) using very precise beams. The radiation comes from a large machine outside the body. The radiation passes through skin and other tissue to reach the tumor(s).

Treatment with SBRT is typically complete in 5 or fewer sessions, called fractions.

“I am a stage III colon cancer survivor. I would recommend taking it one day at a time, 1 hour if necessary. Get a second opinion to feel confident in your treatment plan. Lastly, connect with others who have been where you are. Peer support (whether patient or caregiver) as you navigate your cancer journey is invaluable.”

SBRT for metastatic tumors

A highly specialized type of radiation therapy called SBRT may be used to treat colon cancer that has spread to the liver, lungs, or bone. Treatment typically takes 5 or fewer sessions.



Stage 4 pMMR or MSS cancer

Most colon cancers don't have alterations in genes that fix damaged DNA, called mismatch repair (MMR) genes. Cancers without this feature (most colon cancers) are described as mismatch repair proficient (pMMR) or microsatellite stable (MSS).

Most stage 4 cancers are unresectable. This means that all areas of cancer in the body can't be safely removed using resection (surgery) or destroyed using other localized treatments. Treatment with systemic therapy (anti-cancer medicines) that work throughout the body is needed.

What chemotherapy regimen will I have first?

Systemic therapy given first is called first-line therapy. Recommended options for first-line therapy are listed in **Guide 3.** You are encouraged to consider joining a clinical trial, if available. Ask your care team if you're eligible for any current trials.

Guide 3
First-line systemic therapy for unresectable stage 4 pMMR or MSS cancers

Option for all stage 4 pMMR/MSS tumors	A drug called bevacizumab (Avastin) may be added to any of the below recommended chemotherapy regimens: - FOLFIRI - FOLFOX - CAPEOX - FOLFIRINOX **What is bevacizumab (Avastin)?** Bevacizumab is a type of anti-cancer medicine called an angiogenesis inhibitor. It blocks the tumor from forming new blood vessels that it needs to grow.
Option for tumors in the left side of the colon with normal *KRAS*, *NRAS*, and *BRAF* genes	An EGFR inhibitor may be added to either of the below recommended chemotherapy regimens: - FOLFIRI - FOLFOX **What is an EGFR inhibitor?** EGFR inhibitors are targeted therapies block the activity of a specific protein involved in cell growth. They work best in cancers that form in the left side of the colon. Cetuximab (Erbitux) and panitumumab (Vectibix) are recommended EGFR inhibitors.

Most unresectable stage 4 cancers don't become resectable during first-line therapy. Treatment with systemic therapy usually continues. Because stage 4 cancer generally can't be cured, the goal of chemotherapy is to slow the growth and spread of the cancer.

What if the cancer gets worse?

If the cancer progresses (grows or spreads), chemotherapy that includes fluorouracil (5-FU) is often given next. The specific regimen you receive will depend on treatments you've already had, your general health, and whether the tumor has any biomarkers.

If the cancer progresses through all 5-FU-based regimens and targeted therapy for any biomarkers (if recommended), you may be eligible for these therapies:

- Fruquintinib (Fruzaqla)
- Trifluridine and tipiracil (Lonsurf), often with bevacizumab (Avastin)
- Regorafenib (Stivarga)

All of the above (except bevacizumab) are tablets that can be taken by mouth.

Supportive care

Supportive care is an important part of cancer care. The goal is to improve your quality of life during and after cancer treatment. Supportive care is for everyone with cancer and their families, not just for those at the end of life.

Supportive care includes a wide range of services. Supportive care prevents or manages the symptoms of cancer and the side effects of cancer treatment, like pain and cancer-related fatigue. It also addresses the mental, social, emotional, and spiritual concerns faced by people with cancer. Supportive care provides help with additional needs, such as:

- Making treatment decisions
- Coordinating your care
- Paying for care
- Planning for advanced care and end of life

Read more about the types of support you may receive in *NCCN Guidelines for Patients: Palliative Care*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Treatment for resectable stage 4 pMMR or MSS cancer

Though not common, some stage 4 cancers with limited liver or lung tumors are resectable. For these cancers, colectomy (surgery) and chemotherapy are recommended. Chemotherapy may be given before surgery, after surgery, or both.

Colectomy is surgery to remove the cancerous part of the colon. Your surgeon may remove the tumor(s) from the liver or lungs when they perform the colectomy or at a later date. If the metastatic tumors are small, removing or destroying them with local therapies may be an option—alone or with surgery.

Your doctor may recommend 2 to 3 months of chemotherapy before or after colectomy. This is in addition to the adjuvant chemotherapy recommended for everyone after surgery. The aim of adjuvant chemotherapy is to kill microscopic cancer cells remaining in the body after surgery. FOLFOX and CAPEOX are preferred for most people, but milder options are also available.

Testing to check for recurrence is recommended for 5 years after treatment. Surveillance testing includes physical exams, carcinoembryonic antigen (CEA) blood tests, CT scans, and colonoscopies. See **Guide 4**.

In addition to surveillance testing, a range of other care is important for cancer survivors. For more information, see *Chapter 5: Survivorship.*

Guide 4
Stage 4 colon cancer – surveillance after treatment

Physical exam and carcinoembryonic antigen (CEA) blood test	**First 2 years:** Every 3 to 6 months **Next 3 years:** Every 6 months
CT scan of your chest, abdomen, and pelvis	**First 2 years:** Every 3 to 6 months **Next 3 years:** Every 6 to 12 months
Colonoscopy	Colonoscopy is recommended 3 to 6 months after surgery if **you didn't have** a total colonoscopy at diagnosis. Colonoscopy is recommended 1 year after surgery if **you had** a total colonoscopy at diagnosis.

Stage 4 dMMR or MSI-H cancer

A small number of stage 4 colon cancers is mismatch repair deficient (dMMR) or microsatellite instability-high (MSI-H). These cancers have a high number of mutated (changed) genes and respond differently to colon cancer treatments.

Immunotherapy with an immune checkpoint inhibitor is the most effective treatment for dMMR and MSI-H cancers. Immunotherapy boosts your immune system to help it better find and kill cancer cells.

Treatment recommendations for dMMR or MSI-H cancer also apply to cancers with acquired changes in the *POLE/POLD1* gene.

Unresectable stage 4 dMMR or MSI-H cancer

Checkpoint inhibitor immunotherapy is recommended for unresectable dMMR or MSI-H cancers. Recommended checkpoint inhibitors are listed in **Guide 5.**

Your doctor will order imaging about every 2 to 3 months to see how immunotherapy is working. It may work so well that no cancer can be detected in the body. This is called a complete response. In this case, talk to your doctor about when to safely stop treatment and start surveillance. Surveillance testing is described on the previous page in **Guide 4**.

Not everyone has a complete response. In this case, one possibility is that the cancer shrinks enough that surgery becomes possible. Or you may continue immunotherapy or switch to a different systemic therapy.

What if I'm not a candidate for immunotherapy?

If you're unable to receive immunotherapy, you'll have the recommended treatment typically used for pMMR or MSS cancers (most colon cancers).

Guide 5
Checkpoint inhibitors

Generic name	Brand name
Atezolizumab	Tecentriq
Avelumab	Bavencio
Cemiplimab-rwlc	Libtayo
Cosibelimab-ipdl	Unloxcyt
Dostarlimab-gxly	Jemperli
Durvalumab	Imfinzi
Ipilimumab plus Nivolumab	Opdivo plus Yervoy
Nivolumab	Opdivo
Pembrolizumab	Keytruda
Penpulimab-kcqx	Anikora
Retifanlimab-dlwr	Zynyz
Tislelizumab-jsgr	Tevimbra
Toripalimab-tpzi	Loqtorzi

What if I've already had immunotherapy?

If you've already received checkpoint inhibitor immunotherapy, you aren't a candidate for most of the options in **Guide 5**. Your options for treatment may include:

- Ipilimumab + Nivolumab (Opdivo + Yervoy)
- Oxaliplatin-based chemotherapy

Resectable stage 4 dMMR or MSI-H cancer

The preferred treatment for resectable dMMR or MSI-H cancers with limited liver or lung tumors is immunotherapy followed by colectomy (surgery to remove the colon tumor). Your surgeon may resect the liver or lung tumor(s) when they perform the colectomy (synchronous colectomy) or at a later date (staged colectomy). Other local therapies may be paired with surgery or used alone to remove small metastatic tumors.

Another option for resectable cancers is treatment with colectomy first (synchronous or staged), followed by systemic therapy. For your systemic therapy, you may have chemotherapy only (with either FOLFOX or CAPEOX), or one of these regimens may be paired with a checkpoint inhibitor called atezolizumab (Tecentriq).

If you have a complete response to treatment with 1 of the 2 approaches described above, you'll transition from active treatment to surveillance to check for recurrence. Surveillance is described on page 31 in **Guide 4.**

Immunotherapy side effects

Checkpoint inhibitors have unique side effects. Unlike other cancer treatments, the side effects of immunotherapy occur because the immune system is attacking healthy cells in the body. Learning to recognize possible reactions can help you report them sooner to your care team. More information is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Stage 4 cancer in the abdomen

Some people with metastatic colon cancer will also form tumors in the thin layer of tissue that lines the abdomen, called the peritoneum. The peritoneum covers most of the organs in the abdomen.

Most people receive treatment with systemic therapy. The goal is to relieve or prevent symptoms. Your care team will select a regimen based on whether the tumor has any biomarkers and your overall health.

If the tumor is blocking stool from moving and leaving the body, the bowel needs to be unblocked before starting systemic therapy. This is done using a surgical technique or with a mesh metal tube called a stent.

“As the care partner for my stage IV husband, I would share that you must advocate for them. However, be respectful of their feelings and ensure you’re communicating your research/questions with them. I always reviewed my list of questions and concerns with my husband on the way to our appointments in case I had something on my list that he might not want asked or answered.”

Clinical trials

A clinical trial is a type of medical research study. After being developed and tested in a lab, potential new ways of fighting cancer need to be studied in people.

If found to be safe and effective in a clinical trial, a drug, device, or treatment approach may be approved by the U.S. FDA.

Everyone with cancer should carefully consider all of the treatment options available for their cancer type, including standard treatments and clinical trials. Talk to your doctor about whether a clinical trial may make sense for you.

Phases

Most cancer clinical trials focus on treatment and are done in phases.

- **Phase 1** trials study the safety and side effects of an investigational drug or treatment approach.
- **Phase 2** trials study how well the drug or approach works against a specific type of cancer.
- **Phase 3** trials test the drug or approach against a standard treatment. If the results are good, it may be approved by the FDA.
- **Phase 4** trials study the safety and benefit of an FDA-approved treatment.

Who can enroll?

It depends on the clinical trial's rules, called eligibility criteria. The rules may be about age, cancer type and stage, treatment history, or general health. They ensure that participants are alike in specific ways and that the trial is as safe as possible for the participants.



Finding a clinical trial

In the United States

NCCN Cancer Centers
NCCN.org/cancercenters

The National Cancer Institute (NCI)
cancer.gov/about-cancer/treatment/clinical-trials/search

Worldwide

The U.S. National Library of Medicine (NLM)
clinicaltrials.gov

Need help finding a clinical trial?

NCI's Cancer Information Service (CIS)
1.800.4.CANCER (1.800.422.6237)
cancer.gov/contact

Informed consent

Clinical trials are managed by a research team. This group of experts will review the study with you in detail, including its purpose and the risks and benefits of joining. All of this information is also provided in an informed consent form. Read the form carefully and ask questions before signing it. Take time to discuss it with people you trust. Keep in mind that you can leave and seek treatment outside of the clinical trial at any time.

Will I get a placebo?

Placebos (inactive versions of real medicines) are almost never used alone in cancer clinical trials. It is common to receive either a placebo with a standard treatment, or a new drug with a standard treatment. You will be informed, verbally and in writing, if a placebo is part of a clinical trial before you enroll.

Are clinical trials free?

There is no fee to enroll in a clinical trial. The study sponsor pays for research-related costs, including the study drug. But you may need to pay for other services, like transportation or childcare, due to extra appointments. During the trial, you will continue to receive standard cancer care. This care is often covered by insurance.



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

Key points

- All metastatic colon cancers should be tested for *KRAS*, *NRAS*, and *BRAF* gene mutations, HER2 amplification, and mismatch repair deficiency (dMMR) or microsatellite instability (MSI-H). Multigene panel testing (MGPT) can find other biomarkers that may have targeted treatments.
- Treatment options for metastatic colon cancer may include local therapies, such as resection, thermal ablation, embolization, and stereotactic body radiation therapy (SBRT). A multidisciplinary team should determine if treatment with local therapies is an option.
- When possible, surgery and systemic therapy are recommended for stage 4 colon cancer. Chemotherapy is recommended for mismatch repair proficient (pMMR) cancers. If you are eligible, immunotherapy is recommended for dMMR and *POLE/POLD1*-mutated metastatic cancers.
- Stage 4 cancer that can't be removed with surgery or local therapies is treated with systemic therapy. Systemic therapy is also usually given for colon cancer that has spread to the peritoneum. The goal is to relieve or prevent symptoms.
- The return and spread of stage 1, 2, or 3 colon cancer to areas far from the colon is called a distant recurrence. Most distant recurrences are treated with systemic therapy.
- Everyone with metastatic colon cancer is encouraged to join a clinical trial for treatment. Clinical trials provide access to investigational treatments that may, in time, be approved by the FDA.

Questions to ask

- Am I a candidate for surgery? If not, is it possible that I'll become a candidate?
- Does my cancer have any biomarkers? How does this affect my options?
- Did a multidisciplinary team that includes an interventional oncologist/radiologist review my case to determine if local therapies are an option?
- Do you recommend cold therapy during chemotherapy infusions to prevent neuropathy and hair loss?
- Should I make changes to my diet or lifestyle during chemotherapy?

5
Survivorship

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Survivorship begins on the day you learn you have colon cancer. This range of care helps you manage the physical, emotional, and financial issues unique to cancer survivors. You can learn a lot about managing side effects from other survivors. Consider joining a survivorship support group or connecting with an advocacy organization.

Hair loss from chemotherapy

Chemotherapy may cause hair loss (called alopecia) all over your body—not just on your scalp. The type(s) and dosage(s) of chemotherapy can affect how much hair you lose.

Hair loss from chemotherapy is usually temporary. Hair often regrows 3 to 6 months after treatment ends. Your hair may be a different shade or texture at first.

If your treatment plan includes chemotherapy, ask your care team if hair loss is a side effect and, if so, how to minimize it. Scalp cooling (or scalp hypothermia) might lessen hair loss caused by certain types of chemotherapy.

Bowel changes

After surgery to remove part of the colon, you may experience the following changes to your bathroom habits:

- More bowel movements than usual
- Diarrhea (frequent, watery bowel movements)
- Urgent need to pass stool
- Inability to control your urine and bowel movements

Making changes to your diet can help with some of these symptoms. Consider meeting with a cancer nutritionist to learn about foods that may help or worsen bowel changes after colectomy.

To slow and thicken stool, you can eat foods high in insoluble fiber, take a fiber supplement, and try psyllium-based products (like Metamucil).

If you have frequent or unintentional bowel movements, an over-the-counter anti-diarrheal medicine called loperamide (Imodium) can help. In addition, exercises that strengthen the muscles in the pelvic floor can improve both bowel and bladder control.

For added protection and peace of mind, protective undergarments are also an option.

Nerve damage

Some chemotherapy medicines, especially oxaliplatin, damage your sensory nerves. Called neuropathy, this damage often starts in the hands or feet and worsens over time. Symptoms include pain, numbness, tingling, swelling, or muscle weakness in different areas of the body.

The use of acupuncture, heat, or both may relieve some of these symptoms, but generally not pain. For painful neuropathy, a drug called duloxetine (Cymbalta) is recommended.

There are steps you can take to help lower your risk of neuropathy, such as cold therapy. Cold therapy involves wearing frozen mitts (gloves) and booties (socks) during chemotherapy infusions. The cold temperature shrinks your blood vessels, reducing the amount of medicine that reaches the nerves in your hands and feet.

If chemotherapy is part of your treatment plan, ask your care team about steps you can take to prevent or lessen nerve damage.

Nerve damage caused by chemotherapy often starts in the hands or feet. If you have shooting or burning pain, a prescription medicine called duloxetine (Cymbalta) can help.

More information

For more information on cancer survivorship, the following are available available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

- *Survivorship Care for Healthy Living*
- *Survivorship Care for Cancer-Related Late and Long-Term Effects*

Nerve damage

Nerve damage caused by chemotherapy often starts in the hands or feet. If you have shooting or burning pain, a prescription medicine called duloxetine (Cymbalta) can help.



Healthy habits for cancer survivors



Eat a diet rich in plant-based foods. Limit red meat and processed foods. A low-sugar (also called low-glycemic load or GL) diet may help prevent the return of colon cancer. Low GL foods cause a slower and smaller rise in blood sugar levels than other carbohydrate-containing foods. A cancer nutritionist can help you optimize your diet **during and after** treatment.



Talk to your doctor about the possible risks and benefits of long-term aspirin therapy to help prevent the return of colorectal cancers.



Follow your primary care provider's recommendations for screening for other cancers based on your age, sex, and risk level.



Get other recommended health care for your age, such as blood pressure checks, hepatitis C screening, and immunizations (like the flu shot).



Alcohol can increase the risk of some cancers. Drink little to no alcohol.



Move more, rest less. Try to exercise at a moderate intensity for at least 150 minutes per week.



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

Key points

- Survivorship describes the physical, emotional, and financial issues unique to cancer survivors. It starts at diagnosis and continues through your lifetime.
- A survivorship care plan is helpful in transitioning your care to your primary care doctor.
- Ideally, your oncologist and primary care provider will work together to provide recommended follow-up care. Nurse navigators can also be a helpful resource.
- If you have concerns about paying for your cancer care, financial help may be available.
- Healthy habits, including exercising and eating right, play an important role in helping to prevent other diseases and second cancers.

Questions to ask

- Can you give me a survivorship care plan? How will you provide it?
- Does this treatment center have a survivorship care program?
- What can I expect during a survivorship care visit?

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Other resources

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Want to learn more? Here's how you can get additional help.

What else to know

This guide helps you know your options so you can make informed decisions and improve your cancer care. But it's not the only resource that you have.

Ask for as much information and help as you need. Many people are interested in learning more about:

- Managing side effects
- Genetic testing
- Building a support system
- Lifestyle changes after cancer
- Coping with other health problems

What else to do

Your health care center can help you with next steps. It often has on-site resources to help meet your needs and find answers to your questions. Health care centers can also inform you of resources in your community.

In addition to help from your providers, the resources listed in the next section provide support for many people like yourself.

Where to get help

Look through the list below and visit the provided websites to learn more about these organizations.

Anal Cancer Foundation
analcancerfoundation.org

Bone Marrow and Cancer Foundation
bonemarrow.org

Cancer*Care*
cancercare.org

Cancer Hope Network
cancerhopenetwork.org

Cancer Survivor Care
cancersurvivorcare.org

Colorectal Cancer Alliance
ccalliance.org

Fight Colorectal Cancer
fightcolorectalcancer.org

FORCE: Facing Our Risk of Cancer Empowered
facingourrisk.org

Global Colon Cancer Association
globalcca.org

GRACE
cancergrace.org

Imerman Angels
lmermanangels.org

Love Your Buns
loveyourbuns.org

My Faulty Gene
myfaultygene.org

Paltown Development Foundation
paltown.org

PAN Foundation
panfoundation.org

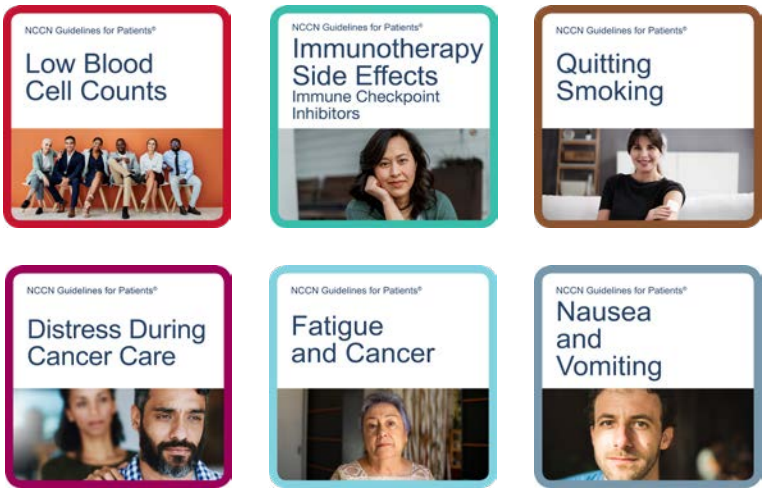
Triage Cancer
triagecancer.org

Questions to ask

- Who can I talk to about help with housing, food, and other basic needs?
- What help is available for transportation, childcare, and home care?
- Are there other services available to me and my caregivers?

Supportive care

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.





Words to know

ablation
A type of local therapy used to destroy tumors in the liver or lungs. Also called image-guided thermal ablation.

adenocarcinoma
The most common type of colon cancer. Starts in cells that line the bowel and make fluids or hormones.

adenoma
The most common type of colon polyp and the most likely to form cancer cells. Also called adenomatous polyp.

biomarkers
Specific features of cancer cells used to guide treatment. Biomarkers are often mutations (changes) in the DNA of the cancer cells.

CAPEOX
A chemotherapy regimen that includes capecitabine and oxaliplatin.

carcinoembryonic antigen (CEA)
A protein released by some tumors that can be detected in blood.

chemoembolization
Treatment for metastatic liver tumors that delivers spheres carrying chemotherapy to the liver vessels supplying the tumor.

colectomy
Surgery to remove a part of the colon.

colon
The first and longest section of the large bowel. Unused food is turned into stool in the colon.

colostomy
Surgery to connect a part of the colon to the outside of the abdomen and that allows stool to drain into a bag.

DPD deficiency
A condition caused by an inherited difference in the *DPYD* gene that makes it unsafe to have the recommended doses of fluoropyrimidine chemotherapy medicines.

embolization
The use of tiny beads to cut off the blood supply to a tumor, to deliver radiation or chemotherapy to a tumor, or both. If radiation and chemotherapy aren't used, it's called bland embolization.

familial adenomatous polyposis (FAP)
An inherited cancer syndrome that increases the risk of colon cancer.

fluoropyrimidine
A type of chemotherapy medicine. Examples include capecitabine and fluorouracil (5-FU).

FOLFIRI
A chemotherapy regimen used for some advanced colorectal cancers. Includes leucovorin calcium, fluorouracil, and irinotecan.

FOLFIRINOX
A chemotherapy regimen used for some colorectal cancers. Includes leucovorin calcium (folinic acid), fluorouracil, irinotecan, and oxaliplatin.

FOLFOX
A chemotherapy regimen that includes leucovorin calcium, fluorouracil, and oxaliplatin.

interventional oncology/radiology
A medical specialty that uses imaging techniques to deliver minimally invasive cancer treatments.

large intestine (bowel)
A long, tube-shaped organ that forms the last part of the digestive system. Includes the colon, rectum, and anus.

lymph
A clear fluid containing white blood cells.

lymph node
Small groups of disease-fighting cells located throughout the body.

metastasis
The spread of cancer cells from the first (primary) tumor to a distant site.

mismatch repair deficiency (dMMR)/high microsatellite instability (MSI-H)
A biomarker (feature) of some colon cancers used to guide treatment. All colon cancers should be tested for this biomarker.

mismatch repair proficient (pMMR)/ microsatellite stable (MSS)
Describes cancers that don't have the mismatch repair deficiency (dMMR) or the microsatellite instability-high (MSI-H) biomarkers.

pathologist
A doctor who specializes in testing cells and tissue to find disease.

***POLE/POLD1* mutation**
A biomarker (feature) of some colon cancers. Recommended as part of comprehensive biomarker testing for metastatic colon cancer.

polyp
An overgrowth of cells on the inner lining of the colon wall. Pedunculated polyps stick out from the bowel wall, while sessile polyps are flatter.

portal vein embolization
A minimally invasive procedure to enlarge the liver. May be needed if a liver resection is planned.

radioembolization
A treatment for liver tumors that uses radioactive spheres injected in the hepatic artery (the main vessel supplying blood to the liver). Also called selective internal radiation therapy, or SIRT.

rectum
The last 5 to 6 inches of the large intestine. Where stool is held until it exits the body through the anus.

recurrence
The return of cancer after a cancer-free period.

resectable
Describes a cancer that can be safely removed using surgery.

stereotactic body radiation therapy (SBRT)
A specialized type of radiation therapy used to treat colon cancer that has spread to the liver, lungs, or lymph nodes.

supportive care
A range of resources and care provided to improve quality of life for cancer survivors.

systemic therapy
The use of medicines that enter the bloodstream. Chemotherapy, targeted therapy, and immunotherapy are types of systemic therapy.

unresectable
Describes a cancer that can't be safely removed using surgery.

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