

Colorectal Cancer: Are You at Risk?

The risk of cancer increases for everyone as they age. Depending on the specific treatment you received for childhood cancer, you may be at increased risk for developing colorectal cancer (cancer of the colon or rectum). It is important to understand that risk, so that you can take steps to protect your health.

What is colorectal cancer?

Colorectal cancer is a type of cancer that occurs in the colon (large intestine) or the rectum (the last several inches of the large intestine). Colorectal cancer is the second leading cause of cancer deaths in the United States. Many of these deaths happen because the cancers are found too late to be cured. If colorectal cancer is found early enough, it can usually be cured.

What are the risk factors?

Several studies have shown those who were treated with radiation to the abdomen, pelvis, spine, or total body irradiation (TBI) during childhood, adolescence, or young adulthood have an increased risk of developing colorectal cancer. It is therefore important for you to obtain your radiation treatment records so that you know what radiation you received.

Other known risk factors for developing colorectal cancer include:

- Having had colorectal cancer or large intestinal polyps in the past
- Having a close relative (sibling, parent or child) who has had colorectal cancer before age 50
- Having ulcerative colitis or Crohn's disease
- Having a hereditary colon cancer syndrome (such as familial adenomatous polyposis)

What are the signs of colorectal cancer?

Most colorectal cancers begin as a polyp. A polyp starts as a small, harmless growth in the wall of the colon or rectum. However, as a polyp gets larger, it can develop into a cancer that grows and spreads. During the early stage of colorectal cancer, there are rarely any outward signs or symptoms to alert you or your healthcare provider that cancer is present. This is why screening is so important. Once the cancer has become more advanced, the following signs may be evident. If you have any of these signs, you should see your healthcare provider immediately:

- Bleeding from your rectum
- Blood in your stool or in the toilet after you have a bowel movement
- A change in the shape of your stool
- Cramping pain in your lower stomach
- A feeling of discomfort or an urge to have a bowel movement when there is no need to have one
- A change in the normal frequency of your bowel movements

Other conditions can cause these same symptoms. You should be evaluated by your healthcare provider to find out the reason for your symptoms.

When is colorectal cancer likely to occur?

In the general population, colorectal cancer is most likely to occur between the ages of 45 and 65. In cancer survivors who were treated with abdominal, pelvic, spinal, or TBI radiation, it may occur earlier. The risk begins to increase around 10 years after the radiation.

What can I do to protect my health?

Most people who received radiation therapy to the abdomen, pelvis, spine, or TBI will **not** develop colorectal cancer. However, if you received this type of radiation, it is important to understand that the risk **is** higher for you than it is for other people your age who never received radiation. So, the best way for you to protect your health is by taking steps to closely monitor your colon. That way, if a cancer develops, it can be detected in its earliest stages, when treatment is most effective.

What monitoring is recommended?

If you were treated with radiation therapy to the abdomen, pelvis, spine, or TBI during childhood, adolescence, or young adulthood, you should be screened for colorectal cancer beginning 5 years after radiation or at age 30, whichever occurs last. You should talk with your healthcare provider about which screening option is best for you. These options include stool-based testing every three years or colonoscopy every five years.

What is stool-based testing?

If you choose stool-based testing, you will need to provide a stool sample, which will be sent to a laboratory to check for signs of colorectal cancer.

What is a colonoscopy?

A colonoscopy is a procedure where a thin, flexible tube connected to a video camera is inserted into your rectum and slowly guided into your colon. The doctor is able to look at the colon on a monitor, and any polyps or growths can be removed through the tube during the exam.

A colonoscopy requires a “bowel prep” the day or night before the procedure to empty the intestines. Your healthcare provider should give you instructions on how to do this.

The procedure may be uncomfortable, but it is usually not painful. Before you have this test, you will be given a medicine to make you feel relaxed and sleepy.

Is there anything else that I can do to minimize the risk?

The following lifestyle changes may help to reduce the risk of colorectal cancer and will help you stay as healthy as possible:

- Eat a variety of healthy foods, with an emphasis on grains, fruits and vegetables.
 - Eat five or more servings of a variety of vegetables and fruits each day.
 - Choose whole grains in preference to processed (refined) grains and sugars.
 - Limit consumption of red meats, especially processed meats (such as hot dogs or bologna) and those high in fat.
 - Choose foods that help you maintain a healthy weight.
- Adopt a physically active lifestyle.
 - Engage in at least moderate physical activity (such as brisk walking) for 30 minutes or more on five or more days of the week.
 - Engaging in 45 minutes or more of moderate to vigorous activity (activities such as running, in which you are not able to carry on a conversation without needing to catch your breath) on five or more days per week may further reduce your risk of colorectal cancer.

Written by Kevin C. Oeffinger, MD, Duke University Medical Center, Durham, NC.

Reviewed by Amelia DeRosa, RN, BSN, CPON; Kayla L. Foster, MD, MPH; Christine Yun, MSN, PNP, CPON.

Additional health information for childhood cancer survivors is available at
www.survivorshipguidelines.org

Note: Throughout this *Health Links* series, the term “childhood cancer” is used to designate pediatric cancers that may occur during childhood, adolescence, or young adulthood. Health Links are designed to provide health information for survivors of pediatric cancer, regardless of whether the cancer occurred during childhood, adolescence, or young adulthood.

Disclaimer and Notice of Proprietary Rights

Introduction to Late Effects Guidelines and Health Links: *The Long-Term Follow-Up Guidelines for Survivors of Childhood, Adolescent, and Young Adult Cancers and accompanying Health Links* were developed by the Children's Oncology Group as a collaborative effort of the Late Effects Committee and Nursing Discipline and are maintained and updated by the Children's Oncology Group's Long-Term Follow-Up Guidelines Core Committee and its associated Task Forces.

To cancer patients (if children, their parents or legal guardians): Please seek the advice of a physician or other qualified health provider with any questions you may have regarding a medical condition and do not rely on the Informational Content. The Children's Oncology Group is a research organization and does not provide individualized medical care or treatment.

To physicians and other healthcare providers: The Informational Content is not intended to replace your independent clinical judgment, medical advice, or to exclude other legitimate criteria for screening, health counseling, or intervention for specific complications of childhood cancer treatment. Neither is the Informational Content intended to exclude other reasonable alternative follow-up procedures. The Informational Content is provided as a courtesy, but not intended as a sole source of guidance in the evaluation of childhood cancer survivors. The Children's Oncology Group recognizes that specific patient care decisions are the prerogative of the patient, family, and healthcare provider.

No endorsement of any specific tests, products, or procedures is made by Informational Content, the Children's Oncology Group, or affiliated party or member of the Children's Oncology Group.

No Claim to Accuracy or Completeness: While the Children's Oncology Group has made every attempt to assure that the Informational Content is accurate and complete as of the date of publication, no warranty or representation, express or implied, is made as to the accuracy, reliability, completeness, relevance, or timeliness of such Informational Content.

No Liability on Part of Children's Oncology Group and Related Parties/Agreement to Indemnify and Hold Harmless the Children's Oncology Group and Related Parties: No liability is assumed by the Children's Oncology Group or any affiliated party or member thereof for damage resulting from the use, review, or access of the Informational Content. You agree to the following terms of indemnification: (i) “Indemnified Parties” include authors and contributors to the Informational Content, all officers, directors, representatives, employees, agents, and members of the Children's Oncology Group and affiliated organizations; (ii) by using, reviewing, or accessing the Informational Content, you agree, at your own expense, to indemnify, defend and hold harmless Indemnified Parties from any and all losses, liabilities, or damages (including attorneys' fees and costs) resulting from any and all claims, causes of action, suits, proceedings, or demands related to or arising out of use, review or access of the Informational Content.

Proprietary Rights: The Informational Content is subject to protection under the copyright law and other intellectual property law in the United States and worldwide. The Children's Oncology Group retains exclusive copyright and other right, title, and interest to the Informational Content and claims all intellectual property rights available under law. You hereby agree to help the Children's Oncology Group secure all copyright and intellectual property rights for the benefit of the Children's Oncology Group by taking additional action at a later time, action which could include signing consents and legal documents and limiting dissemination or reproduction of Informational Content.