RADIATION THERAPY FOR CANCERS OF THE ESOPHAGUS AND STOMACH

ASTRO

AMERICAN SOCIETY FOR RADIATION ONCOLOGY

RADIATION THERAPY FOR CANCERS OF THE ESOPHAGUS AND STOMACH

contents

TREATMENT TYPES 2

CARING FOR YOURSELF DURING TREATMENT 5

SIDE EFFECTS 7

SUGGESTED QUESTIONS TO ASK YOUR TEAM 10

The esophagus (food pipe) is the organ that brings food from your mouth down to your stomach which then helps begin the digestion process. The **most common types of esophageal cancers are adenocarcinoma and squamous cell carcinoma**. Stomach cancers are most commonly adenocarcinomas.

Risk factors for each cancer vary and may include age, gender, family history, diet, activity level, bacterial infection, gastroesophageal reflux disease, alcohol consumption and tobacco use. **Talk to your doctor about understanding your risk factors**.

Screening is not generally recommended for esophageal and stomach cancers. However, some individuals who have a history of Barrett's esophagus may be encouraged to be screened.

TREATMENT TYPES

Radiation therapy involves the precise use of high energy X-rays to treat cancer safely and effectively. Radiation oncologists are cancer doctors who use radiation to cure cancer, control cancer growth or relieve symptoms, such as pain or bleeding. In most cases, photon therapy is used to treat cancer and can deliver high doses of radiation therapy to the cancer while sparing nearby organs. Some cases may use proton therapy to treat cancer. Proton therapy may be helpful in decreasing radiation therapy dose to surrounding organs.

Radiation works by damaging the DNA of cancer cells so the cancer is unable to grow. When these cells die, the body naturally eliminates them from your body. Healthy cells can also be affected by radiation, but these normal cells can repair themselves in ways that cancer cells cannot.

Radiation is often used in combination with surgery and chemotherapy to treat esophageal and stomach cancers.

- Stomach cancer is treated primarily with surgery along with chemotherapy. Chemotherapy (with or without radiation) can be used before and/or after surgery for stomach cancer, depending on the location and stage of your cancer.
- Esophageal cancer is also treated primarily with surgery. Radiation and chemotherapy are often given prior to surgery to improve cure. Sometimes, radiation and chemotherapy are used together without surgery for curative treatment.
- Other agents, such as immunotherapy or targeted drug therapy, may be used for your treatment. Your medical oncologist will be able to answer questions about whether these agents may be right for you.

- If cure is not possible, chemotherapy is often used to control cancer that has spread throughout the body. Radiation may also be used in this setting to relieve pain, obstruction or difficulty swallowing.

External beam radiation is the most common way to deliver radiation for esophageal and stomach cancers. Beams of high energy X-rays come from a machine, known as a linear accelerator, and are directed at the tumor. Advances in imaging and computer technology have made external beam radiation therapy more effective in destroying tumors and sparing normal healthy tissue.

Proton therapy is sometimes used instead of X-rays (photons) to treat cancers of the esophagus and stomach. Protons may help reduce the dose to the normal organs surrounding a cancer in certain situations, but whether this ultimately reduces side effects for a patient with stomach or esophageal cancer is unknown at this time.

- Before beginning treatment, you will be scheduled for a planning session, also known as a "simulation," to map out the area to be treated. The simulation involves a CT scan and landmarks placed on your skin (often tiny tattoos or stickers) to allow the radiation therapists to precisely position you each day.
- The scan is then used by the doctor and the treatment team to precisely map out the radiation treatments and ensure the treatments are delivered safely and effectively.
- To minimize side effects, a small amount of radiation is usually given daily, five days a week, over five to six weeks. By giving daily radiation treatments, tumor cells will start to die because they are unable to repair themselves between treatments. The daily doses will build up to enough radiation dose to kill the tumor. Normal cells have the ability to repair themselves each day between treatments.

CARING FOR YOURSELF DURING TREATMENT

Follow the advice of your treatment team and ask your nurse or doctor any questions that come up about treatment or symptoms. Be sure to tell your radiation oncologist about any vitamins or dietary supplements that you are taking to make sure they are safe to take during radiation.

It is important to take care of yourself during your radiation therapy treatment. The normal parts of your body need time and energy to heal. A balanced diet with small, frequent meals, a moderate amount of physical activity and taking time to rest are essential parts of your cancer treatment. Sometimes it may be easier to drink your calories with supplements like a calorie replacement protein shake. Ask your treatment team for recommendations if you are having difficulty swallowing, maintaining your weight or getting dehydrated. It is important not to lose too much weight during your treatment so that your body can heal and recover.

For patients who have trouble with weight loss or swallowing, a feeding tube may be helpful in delivering enough calories and fluids so that the body can recover from treatments. The hope is that the feeding tube use will be temporary, but in come cases, it can become permanent.

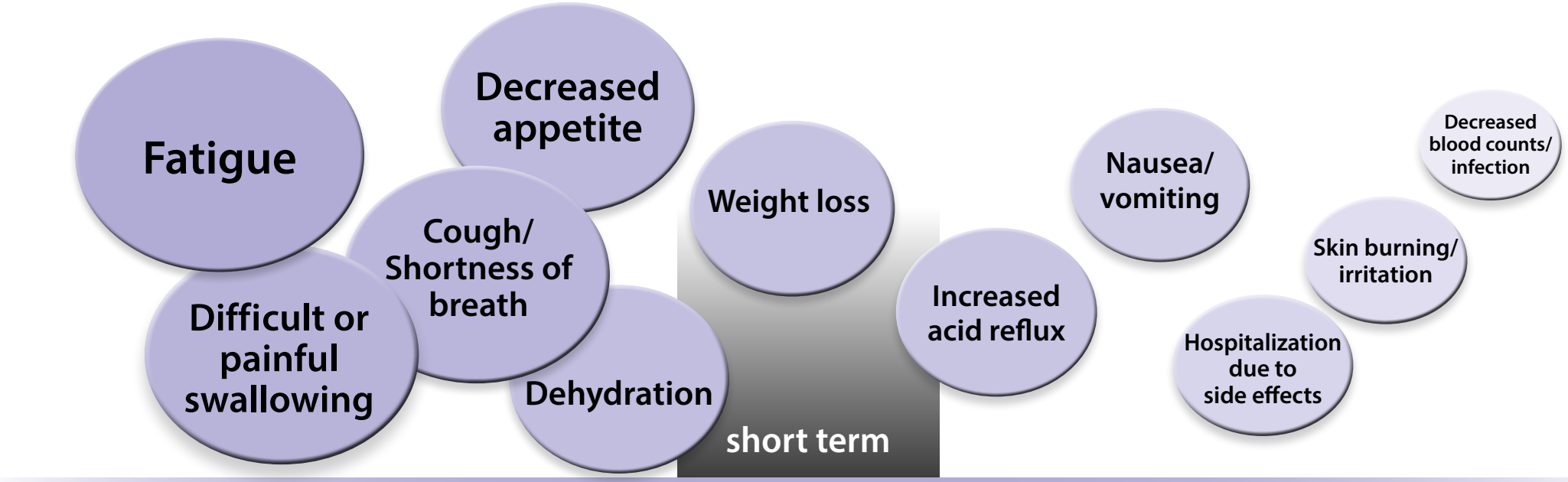
Recovery after completion of treatment can also be challenging. Seek out help from support groups and friends ahead of time. If you have a support network in place before and during treatment, it will be easier to get through treatment. If you need additional support, let your doctor and nurse know. They may have resources available.

SIDE EFFECTS

Radiation side effects can often be delayed and may not begin until one to three weeks into the radiation treatments. These side effects often build up over time during treatment and may even continue to worsen for up to one to two months after completion of radiation.

Treatment side effects can often be controlled with medications or changes in your diet. Tell your doctor or nurse if you experience any of them, so they can assist you with the symptoms you are experiencing.

The chart on the following pages list the most common know side effects. The larger the bubble, the higher the likelihood of occurrence.



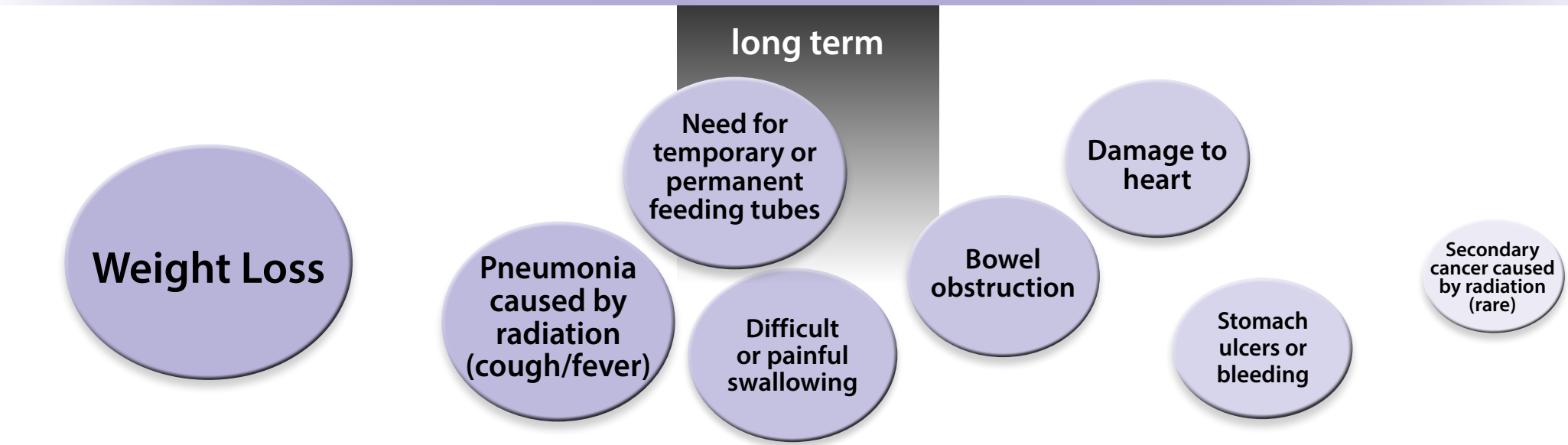
Side effects are usually temporary and usually go away shortly after treatment ends.

more likely

RT for Esophagus and Stomach Cancers Possible Side Effects

less likely

After the short-term side effects of radiation therapy resolve, others may become noticeable months or years later.



**Larger bubbles show higher likelihood of occurrence. This list doesn't represent all of the possible side effects. Please talk to your doctors about your specific diagnosis.*

SUGGESTED QUESTIONS TO ASK YOUR TEAM

What is the stage of the cancer?

What are the treatment options?

Will I need to see other physicians?

How many total radiation treatments will I receive over what period of time?

What are the risks, benefits and alternatives to the proposed treatment?

How long will it take to get treatment started?

What can I do to prepare for the treatment?

Who can I talk to during the treatment if I am experiencing side effects?

How do we determine if the treatment was effective and what is the likelihood of eliminating my cancer?

What can I do to try to maintain my weight during treatment?

What happens after treatment is complete? How will the cancer be monitored?

If you have any questions about your diagnosis, treatment or side effects, please contact your doctor or other members of your treatment team. To locate a radiation oncologist in your area, or for additional cancer treatment information, visit www.rtanswers.org.

ABOUT THE RADIATION ONCOLOGY TEAM

Radiation Oncologists are doctors who oversee the care of each patient undergoing radiation treatment. Other members of the radiation oncology team include radiation therapists, dosimetrists, social workers and nutritionists. To learn more about the role these professionals have in your treatment, visit www.rtanswers.org/treatmentteam.

RTAnswers
ANSWERS TO YOUR RADIATION THERAPY QUESTIONS

I Have Cancer. Now What?

Cancer diagnosis is chaotic, unpredictable, messy. Your cancer treatment shouldn't be. **RTAnswers.org** provides detailed information and resources for cancer patients and their caregivers, including:

- Treatment information by disease site.
- Videos walking you through the radiation therapy treatment process.
- Stories from patients and caregivers sharing their experiences from diagnosis and treatment to survivorship.
- A "Find a Radiation Oncologist" portal where you can search by city, state and disease site specialty for a radiation oncologist near you.

RTAnswers
ANSWERS TO YOUR RADIATION THERAPY QUESTIONS

THE AMERICAN SOCIETY FOR RADIATION ONCOLOGY

(ASTRO) is the largest radiation oncology society in the world, with more than 10,000 members who specialize in treating patients with radiation therapies. As the leading organization in radiation oncology, biology and physics, ASTRO's mission is to advance the specialty of radiation oncology through promotion of equitable, high-quality care for people with cancer, cultivating and educating a diverse workforce, fostering research and innovation, and leading policy development and advocacy. Visit www.astro.org for more information.

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