

Lung Cancer Screening:

What you know can save your life

The President's Cancer Panel recommends lung cancer screening as the single most effective way to reduce mortality from the disease and improve health equity and access.

Lung cancer is the second most common cancer in both men and women in the United States. According to the American Cancer Society, an estimated 238,340 new cases of lung cancer will be diagnosed in the U.S. in 2023, 2,750 of which will be in Connecticut.

Lung cancer is also the leading cause of cancer death in the U.S., accounting for about 20% of all cancer deaths. The American Cancer Society estimates that 127,070 people will die of lung cancer this year (1,320 in Connecticut), which is more than colon, breast, and prostate cancers combined.

The good news is that the number of deaths from lung cancer has been trending downward for men since 1990 and since 2002 for women. One reason for this positive development is the availability of effective screening.

Lung cancer screenings are now conducted using low-dose CT (LDCT) scans for people at high risk for lung cancer, such as heavy smokers. LDCT was first implemented during the National Lung Screening Trial (NLST), a U.S. clinical trial that began in 2002 and involved over 50,000 participants. The trial was designed to determine the effectiveness of LDCT screening for the early detection of lung cancer.

The results of the NLST, published in 2011, showed that LDCT screening could reduce lung cancer mortality by detecting cancers at an earlier, more treatable stage. This led to increased interest in using LDCT scans for lung cancer screening, and it

became more widely adopted in the medical community as a recommended screening method for individuals at high risk for lung cancer.

"Screening is one of the best tools we have in the fight against cancer," says Leever Radiation Oncologist Dr. Joseph Ravalese, III. "Screening is not available for all

types of cancer, but we are fortunate to be able to screen for lung cancer, which is one of the most prevalent and deadly types. Early detection is important because lung cancer is easier to treat in the early stages, and patients diagnosed early generally have much better outcomes."

According to the American Cancer Society, the five-year survival rate for lung cancer that has spread to other parts of the body is just 7%, while for lung cancer that has not yet spread, the five-year survival rate is 61%.

Despite the success of lung cancer screening in identifying lung

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Screening is one of the best tools we have in the fight against lung cancer.

Joseph Ravalese, III, MD, Radiation Oncologist, The Harold Leever Regional Cancer Center

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cancer in its early stages and saving the lives of lung cancer patients, in the 10 years since the United States Preventive Services Taskforce first recommended low-dose CT for lung cancer screening, fewer than one in 10 eligible individuals have undergone CT screening — far fewer than have undergone other established cancer screenings, such as mammography and colonoscopy.

Access to and utilization of lung cancer screening (LCS) has been par-

ticularly challenging for rural and racial/ethnic minority groups, who are more likely to live farther away from a designated LCS center, be underinsured, and have lower health literacy levels.

The cost of lung cancer screening is covered for patients meeting specific criteria: between the ages of 50 and 80, currently a smoker or have quit smoking within the past 15 years, have smoked 20 or more pack years (one pack per day for 20 years), and have no signs or symptoms of lung cancer.

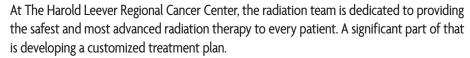
For those who do not meet the criteria or are not covered by Medicare or private insurance, a low-dose CT scan runs less than \$300 out-of-pocket. If you think you should be screened, contact your primary care physician, who can refer you to a local organization for screening.

While November 11 is the official National Lung Cancer Screening Day, low-dose CT lung cancer screening is offered throughout the year for those who need it.

B E H I N D T H E S C E N E S

Radiation Therapy

Creating a customized radiation treatment plan



The development of the treatment plan begins with a CT simulation, which allows the doctor to see the patient's internal anatomy and delineate the areas to target and avoid. The treatment plan is created based on this information and involves three key elements: the dosimetrist, the physicist, and the treatment planning system.

A treatment planning system is a computer software program used to determine optimal beam arrangements, energies, field sizes, and other elements to ensure that the radiation dose patients receive is as safe and effective as possible.

The Leever Cancer Center already uses a sophisticated treatment planning system, but that system is about to get significantly better. The Leever team is in the last phases of testing an updated treatment planning system (RayStation) that will deliver unprecedented speed and accuracy, giving patients the best, safest, and most precise radiation treatment.

The role of the dosimetrist is to ensure that the radiation treatment delivers the strongest radiation dose while minimizing any negative effects on the patient's healthy organs.

"From the patient's perspective, the whole point is to deliver the prescribed amount of radiation to the tumor while minimizing exposure to healthy tissue," said Lily Tang, a Leever physicist. "That requires effective and accurate algorithms. The new algorithms can really minimize radiation delivery to healthy tissue, so patients can feel comfortable knowing that our system will deliver the correct dose to the tumor while sparing healthy tissue to the maximum extent."

The third part of the puzzle, the physicists, "do a little bit of everything," said Crooks.



Working together, the dosimetrists and physicists ensure that the treatment prescribed by the physician is delivered as accurately and safely as possible. "All of the techniques are very advanced," said Tang. "We are just improving on an already very good technique, which will have better long-term effects for patients and hopefully fewer side effects."

"Patients can feel comfortable knowing that our system will deliver the correct dose to the tumor while sparing healthy tissue to the maximum extent."

— Lily Tang, HLRCC Physicist



Introducing MERIEM MOKHTECH, MD

The Harold Leever Regional Cancer Center welcomes our newest radiation oncologist, Dr. Meriem Mokhtech.

After obtaining her MD from the University of Florida College of Medicine in Gainesville, Florida, Dr. Mokhtech completed her internship at Newton-Wellesley Hospital in Newton, Massachusetts, and her residency in therapeutic radiology at Yale New Haven Hospital. She specializes in radiation oncology with a special interest in women's malignancies. She is excited to join our team and serve the local community.

Q: What brought you to HLRCC?

Dr. Mokhtech: The people!

Q: What are your areas of specialty and/or any particular areas of interest?

Dr. Mokhtech: Women's malignancies.

Q: What is your goal in your position at HLRCC?

Dr. Mokhtech: To serve the community and cure cancer.

Celebrating Dr. Bitterman!

As we welcome one new provider, we say farewell to another with the retirement of Jeffrey A. Bitterman, MD.

Dr. Bitterman, a radiation oncologist, began his career at Waterbury Hospital in 1979 and has been with HLRCC since it opened in 2002. He was an original member of the HLRCC Board of Directors and served as HLRCC's Medical Director until his retirement at the end of June. We thank him for his many years of unwavering dedication.





Dr. Bitterman and his family celebrated his retirement party at HLRCC in June. He and his wife Sherrie welcomed their first grandson this summer!



Speakers at Dr B's retirement event included (left to right): Dr. Joseph Ravalese, III; Christina Kidulas; Dr. B.; Dr. Aziz Richi; Dr. Kert Sabbath; Kevin Kniery; Deborah Parkinson; Dr. Douglas Housman.





On September 9, close to 2,000 riders participated in the 13th annual Closer to Free Ride in support of research and care

for cancer patients through Smilow Cancer Hospital.

- 1: Shannon Miller, co-anchor of the NBC Connecticut morning newscast, and Leever's own Deborah Parkinson, Director of Operations.
- 2: JoAnne Varanelli, Alisha Jabs, and Kris Squires.
- 3: Team Captain Holly Bemonte and Dr. Kert Sabbath.
- 4: Brian Alonza and David Zeiner.
- 5: Members of the "Rays of Hope" team, which includes staff from the Waterbury Care Center of Smilow located in the Leever building, as well as HLRCC staff, patients, and friends.





NAPBC Reaccreditation

A Breast Center "Without Walls"

The Breast Center of Greater Waterbury at the Leever Cancer Center is a breast center "without walls." The Mission of the Breast Center is to provide a structure that will facilitate the provision of state-of-the-art comprehensive care for patients with breast disorders. We are pleased to announce that the Breast Center has been granted a three-year full reaccreditation designation by the National Accreditation Program for Breast Centers (NAPBC). Accreditation by the NAPBC is granted only to those centers that are voluntarily committed to

> providing the best possible care to patients with diseases of the breast.

NAPBC Certificate of Accreditation **Breast Center of Greater Waterbury**

Each breast center must undergo a rigorous evaluation and review of its performance and compliance with NAPBC standards. To maintain accreditation, centers must monitor compliance with NAPBC standards to assure quality care, and undergo an on-site review every three years.



Dr. Consuelito Medrano spins on the dance floor with husband John Tillman.

In May, Leever went back in time at the Rock & Roll Sock Hop. Leever staff, providers, and friends dressed up and danced the night away to hits from the '50s, '60s, and '70s. Special thanks to our friends at WATR Radio 1320 for their continued support!







Every Step Brings Hope

Relay For Life 2023

Once again, the Leever Center was a gold sponsor for the 30th anniversary of the Greater Waterbury Relay for Life, held at Holy Cross High School in Waterbury in June. Although we weren't able to relay outdoors, everyone joined together with friends and colleagues of Leever in support of this event.



- 2: "Team Leever" members included (left to right): Leisa Kniery, Kevin Kniery, Dr. Jeffrey Bitterman, Dr. Yueming Chang and her son, Melinda Marino, Samantha Conway (kneeling), Deborah Parkinson, Mikal Miniter, Tom Belzek, and Paula Cappellina.
- 3: Survivors and caregivers were called to start the Relay and participate in the first lap.

Celebrate. Inspire. Support.

National Cancer Survivors D

Our National Cancer Survivors Day event was held on June 2nd. It was a gathering to honor the strength and courage of those living with a history of cancer.

Special thanks to Melissa Seres and Deborah Parkinson, who were instrumental in organizing this year's event!







4: Attendees were encouraged to participate in a fun painting project using colorful thumbprints to make the butterfly come alive.

1: Melissa Seres (far left) with prize winners Teresa and Vito Lombardi. 2/3: Drs. Jeffrey Bitterman and Consuelito Medrano spoke at the event.

Ultra-processed foods: Ultra-unhealthy?

As consumers, we are barraged with nutrition information, and it is often hard to determine what claims are legitimate. The most recent debate concerns something that has been around for a long time: ultra-processed or highly processed foods. It's helpful to know what this means.

Unprocessed foods are foods in their natural state: fresh fruits, raw vegetables, whole grains, raw nuts, meats, and eggs, just to name a few.

Minimally processed foods are in their natural or nearly natural state but may be minimally altered by removal of inedible parts, drying, crushing, roasting, boiling, freezing, or pasteurizing to make them edible. They may have added vitamins or minerals, or a small amount of salt or sugar. Examples include frozen/canned fruits or vegetables, canned fish, cooked eggs, cooked meats/fish/poultry, and freshly made baked goods. These foods tend to have two to three ingredients.

Ultra-processed foods (UPFs) have many added ingredients, often industrially created sugars, salt, fats, artificial colors, preservatives, flavor enhancers, and stabilizers. Examples of these would include frozen meals, soft drinks, hot dogs, cold cuts, fast foods, packaged cakes, cookies, and salty snacks. A long list of ingredients, many of which are not found in our pantries, are found in UPFs. These additives increase the shelf life, but also increase the calories from fat and sugar.

Why do people eat ultra-processed foods? They are inexpensive, convenient, they last a long time, and they taste good.

So, what's the problem? In the U.S., UPFs comprise 60%-70% of calories eaten and almost 90% of the energy we get from added sugars. The added ingredients and chemicals can cause inflammation, which may contribute to chronic disease, including obesity, heart disease, cancer, and diabetes. People who eat primarily UPFs are often heavier than those whose diets contain more unprocessed or minimally processed foods.

Is there any research to prove this? In 2019, Kevin Hall, a senior researcher at the National Institutes of Health (NIH), who studies obesity and diabetes, was intrigued by this data and decided to test the theory that UPFs are harmful to health.

By Leever Nutritionist Karen Sabbath, MS, RD, CSO (ksabbath@leevercancercenter.org or 203-575-5510)

He recruited 20 healthy adults to stay at an NIH facility for four weeks. Participants were assigned to either a minimally processed or ultra-processed diet for two weeks, then switched to the other diet for the remaining two weeks. Both groups were served twice as many calories as they would need to maintain their weight and could eat as much or as little as they chose. Both diets were nutritionally matched for fat, salt, fiber, carbohydrates, and protein.

The results were surprising. Those on the ultra-processed diet were eating about 500 more calories a day from fat and carbohydrates than those on the unprocessed diet, AND they gained an average of two pounds. Those on the unprocessed diet ate less and lost weight. It was felt that the highly processed nature of the foods themselves somehow caused people to eat more. Clearly, more research needs to be done.

Current research: Some researchers think that the added sugar and chemicals in UPFs stimulate the brain in the same way as addictive substances like nicotine and alcohol. Other research is looking at a possible connection between UPFs (including artificial sweeteners) and depression.

Where do we go from here?

No one can be perfect, but here are some things you can do to limit UPFs in your diet:

- When possible, make your food from scratch.
- Eat lots of fruits, vegetables, whole grains, healthy fats, and lean protein (the Mediterranean Diet).
- Read food labels. If there are ingredients you don't have in your pantry, don't buy it.
- Avoid excess amounts of sugary beverages and artificial sweeteners.

You have the power to eat well. Take charge and be healthier!



A Community of Caring

The Harold Leever Regional Cancer Center wishes to express its appreciation to our neighbors and friends...

Light the Night event was held in Bushnell Park in Hartford on September 29. Different colored lanterns were carried for survivors, supporters, and in memory of loved ones lost to cancer. Many thanks to the members of Team Leever who participated in this event and to those who donate year-round.

Thanks to **Seymour Pink** for organizing the 12th annual Seymour Pink Live 5K in Seymour, CT, on October 7. The Leever Center was a proud finish line sponsor.



Bringing Light to a Cure

We are most appreciative for the following donations from our caring community:

- Janet Doctors. Alissa Henderson. and Bethlehem North Purchase "Happy Hookers" Group for unique knit hats.
- Naugatuck Senior Center for handknit lap blankets.
- Red Heart Yarns for their generous donation of yarn.
- Maryann Jackson for useful chemo caps.
- Nicole Barber of Cancer Can't Co. for their donation of 31 sweatshirts and tee shirts with port-a-cath access zippers.
- Courtney Raymond for the contribution of personal care and medical supply items from Unilever NA.





The Watertown Police Department hosted their 8th annual golf tournament, once again teeing off for the Leever Center. Special thanks to Austin Keeney who organized the event with the help of countless sponsors, participants, and volunteers. The tournament specifically raises funds for our "Stepping Forward" Survivorship Program, designed to address the needs of cancer survivors.





Special thanks to members of Premier Subaru Middlebury's staff for their warm and comforting donation of 80 blankets for Leever patients. Pictured above, left to right: HLRCC's Deborah Parkinson, Kerri Pacheco, Kym Gaffney, Rob Beasley, Mike Kather, HLRCC's Melissa Seres, HLRCC's Kevin Kniery, and Michael Colagiovanni.

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We encourage your feedback. If there is a cancer topic you would like covered, to respond to an article you've read, or to be put on our mailing list, please call 203-575-5555 or email: dparkinson@leevercancercenter.org



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1075 CHASE PARKWAY, WATERBURY, CT 06708





Monthly Support Groups

BRAVE AT HEART: WOMEN'S BREAST CANCER SUPPORT GROUP

First Wednesday of every month 7:00 - 8:00 PM

Location: Jesse Camille's, Naugatuck, CT For more information, please email BraveatHeart3@gmail.com or call Sue Ascenção at 203-232-3026.

COMPASSIONATE FRIENDS

Second Thursday of every month 6:30 - 9:00 PM

Location: HLRCC Meditation Room, 1st Floor For more information, please contact Kathy Daisey: 203-723-5067 or Sharon Burns: 860-384-1398.

CT MULTIPLE MYELOMA FIGHTERS **SUPPORT GROUP**

Second Wednesday of every month 6:00 - 8:00 PM

Location: Prospect Library

For more information, please contact Robin Tuohy: 203-206-3536.

GREATER WATERBURY **AREA OSTOMY SUPPORT GROUP**

203-575-5511.

First Monday of every month 6:30 - 8:30 PM

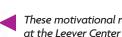
Location: HLRCC Conference Center, **Ground Floor**

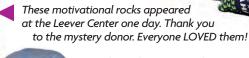
For more information, please contact Bob or Deborah at the Ostomy Foundation: 475-209-2404.

HOPE MUTUAL AID GROUP FOR PATIENTS **AND THEIR LOVED ONES**

First and third Tuesday of every month 4:00 - 5:00 PM

Location: HLRCC Patient Resource Library This group provides a comfortable and confidential environment in which to share your experiences and gain strength and encouragement. For additional information, contact Melissa Seres, MSW, LCSW, OSW-C: mseres@leevercancercenter.org or





A huge shout out to The Busy Bees of Farmingbury Women's Club of Wolcott who created 250 comfort pillows and port protectors for cancer patients. These will be distributed in the coming months.

HELPFUL RESOURCES

For programs providing support and information: 211 or 211.org

Direct numbers for specific resources:

Domestic violence

888-774-2900 English 844-831-9200 Spanish

Suicide

866-794-0021 Greater Waterbury

Child abuse

800-842-2288

Crisis hotline for young adults

Text "listen" to 741741

Elder abuse

888-385-4225

Sexual assault

888-999-5545 English 888-568-8332 Spanish

Veterans crisis hotline

800-273-8255 and press 1 Text: 838255

or veteranscrisisline.net

Alcoholics Anonymous

866-783-7712 English

or ct-aa.org

Narcotics Anonymous

800-662-4357/800-420-9064

National Alliance of Mental Health (NAMI)

800-215-3021

Food resources

ctfoodbank.org (Local food pantries can be looked up by zip code)



