

Anyone can get lung cancer

- Most often, this change in lung cells happens when people breathe in dangerous, toxic substances.
- Look at factors that could make you at higher risk:
 - ◆ Do you or have you been a **smoker**?
 - ◆ Are you or have you been **exposed to second hand smoke** on a consistent basis at home, at work, etc.?
 - ◆ Have you checked to make sure your house is not one of the 1 in 15 in the US subject to **radon** (colorless, odorless radioactive gas that exists naturally in soil) exposure the second-leading cause of lung cancer?
 - ◆ Are you exposed to **hazardous chemicals at work** (e.g. asbestos, uranium, arsenic, cadmium, chromium, nickel and some petroleum products)?
 - ◆ Is the **air quality** good where you live? Is there particle pollution: smog, smoke, etc.?
 - ◆ Do you have a **family history** of lung cancer?

Lung Cancer Facts

- Lung cancer kills more men and women than breast, prostate, and colon cancer combined.
- Smoking is the number one cause of lung cancer and accounts for 90% of all lung cancer deaths, but it is not the only cause
- Radon exposure is the second leading cause, and the first among people who have never smoked.
- Additional causes include secondhand smoke, air pollution, asbestos, and occupational exposures.
- Every 2.5 minutes another person is diagnosed.
- 20% of these deaths are non-smokers
- Only 15% of lung cancer patients are diagnosed in the early stage when the disease is most curable.
- Most often there are no distinct or noticeable symptoms until the disease is in its later stages, but these are ones to watch for:
 - ◇ A cough that doesn't go away and gets worse over time
 - ◇ A chronic cough or "smoker's cough"
 - ◇ Hoarseness
 - ◇ Constant chest pain
 - ◇ Shortness of breath or wheezing
 - ◇ Frequent lung infections such as bronchitis or pneumonia
 - ◇ Coughing up blood

Other symptoms include:

- * Weight loss
- * Bone pain or fractures
- * Loss of appetite
- * Blood clot
- * Headaches



Wortman Lung Cancer Foundation 501(c)(3)
RUNNING LUNGS

WORTMAN LUNG CANCER FOUNDATION 501(C)(3)
EIN 47-1025060 - Letter 5436-effective:6-09-2014
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All profits go to Mayo Clinic Lung Cancer & Healthy Lung Research

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Screening is important

- New screening guidelines are in place for people at risk.
- Early detection of lung cancer allows for better survival.
- Low-dose spiral CT scans can detect lung tumors at an earlier stage.

Sources:

American Cancer Society: <http://www.cancer.org/cancer/news/features/why-lung-cancer-strikes-nonsmokers>

American Cancer Society, Cancer Facts and Figures 2016: <http://www.cancer.org/acs/groups/content/@research/documents/document/acspc-047079.pdf>

American Lung Association: <http://www.lung.org/>

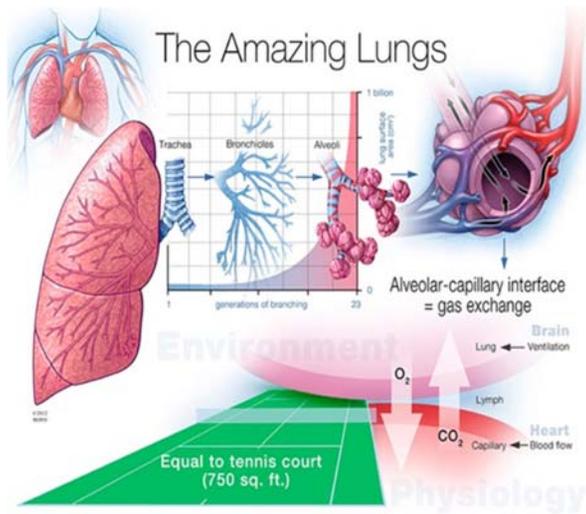


“Why Lung Cancer holds a peculiar distinction... and doesn't have to be the #1 Cancer Killer”

- Lung Cancer is the least-researched major cancer- According to data presented the 16th World Conference on Lung Cancer, rates among NEVER SMOKERS are surging. Lung Cancer tops all other malignancies worldwide
- American Cancer Society estimates there will be more than 220,000 new lung cancer cases in 2016 with 160,000 deaths in the U.S. that equal to the number of deaths attributed to the next four cancers - Breast, Prostate, Colon and Pancreatic - combined! Lung Cancer tops all other cancers Worldwide
- Lung cancer in women is raising and that is why RUNNING LUNGS RACES have become the means to educate communities by introducing fun lung facts to remove the stigma that lung cancer is a just smokers disease.
- A never smoker and active woman, Linda Wortman was shocked to be diagnosed with lung cancer in 2008 at Mayo Clinic. After treatment and recovery, her loving husband, Jerry, helped Linda find a new passion of running with only a lung-and-a-half. and completed a 5k race in 50 states. Now they are running a 10K race in every continent. Most recently co-founded Wortman Lung Cancer Foundation 501(c)(3) and RUNNING LUNGS Run/Walk events in 4 states , MN AZ MT & FL.
- Linda and Jerry run to fight the unfair stigma associated with lung cancer. Everyone knows people shouldn't smoke, but any blame or stigma attached to lung cancer needs to disappear. Shockingly, Linda was required to attend Nicotine Rehab, even though she never smoked. Her life insurance was cancelled and she was told “You should be dead”! As oncologist and funders point out:” Low funding levels for lung cancer are a vicious cycle that results in fewer scientist getting on the case, this must be changed”!
- RUNNING LUNGS Mission ?
To help create lung cancer awareness & raise funding for lung health and lung cancer research to help save lives. Shockingly 40% of those diagnosed Never Smoked or stopped years before their diagnosis. Scientific findings including lifesaving CT scanning, must be released to the public through the media — and in ways that are meaningful to people and their loved ones.

Lung Facts

- The lungs are one of the largest internal body organs.
- The right lung is slightly larger than the left lung.
- Humans breathe 15-20,000 times per day, breathing in 2100 to 2400 gallons of air each day.
- The lungs consist of approximately 300 million tiny sacs called alveoli (grape like clusters) where the gas exchange of oxygen and carbon dioxide takes place.
- The surface area of the lungs is huge and dependent on gender and height.



Lung Fun Facts

- We lose half a liter of water everyday breathing
- Lung cancers have a better chance to be cured if detected early.
- Rates are decreasing in men but not women.
- Lung cancer kills more men and women than breast, prostate, and colon cancer combined.
- People can live with one lung.
- Taking a breath is one of the first and last things you do in life.
- Stretched out, the lungs have the surface area of a tennis court.
- 1 in 14 people will develop lung cancer in their lifetime.
- More than 430,000 people alive today have been diagnosed with lung cancer at some point.
- Every 2.5 minutes, another person is diagnosed.
- 20% of lung cancer deaths are non-smokers.

National Healthy Lungs Research Project Overview

The plan for participation of this study is as follows:

- Participants that sign up for a Healthy Lungs 5/10K race will be sent an email, asking if they would be willing to participate in a research study tied to the race they have signed up for.
- If they want to participate they will be directed to a link, which will take them to a secure online portal where they will be provided further information about the study and a consent form, which they can read and if they agree can accept/sign to participate.
- Once they consent, they will complete questionnaires which gather information about their basic demographics, activity levels, nutrition/diet, and medical history.
- Once this is complete, they will not have to do anything until race day.
- On race day, the subject will be asked to arrive an hour before the race or come to the packet pick up location the day before the race to perform a breathing test. This measurement will be conducted by members of the study team who will be present at the race and have set up a few stations for measures to be performed.
- Subjects will also be asked to provide a DNA sample through a cheek swab, and breathe into a device that measures compounds in one's exhaled breath.
- After this is completed the majority of participants will complete the race and provide a post-race exhaled sample.
- Some participants each race will be offered a commercially available wireless activity monitoring device (e.g., BodyMedia Senseware arm band, Jawbone Up wristband, Biovotion, etc.). The device will be collected from the subject after they complete the race.
- Ideally, participants would complete races on multiple years, but this is not necessary for participation in the study, and follow up can be tracked through the website.
- Those who are unable to return to complete races in subsequent years will be emailed and asked to complete a follow-up questionnaire online.
- Those subjects that do return for the race for multiple years will have many of the initial measurements repeated.

Mayo Clinic/Wortman Foundation – National Healthy Lungs Research Project

The Wortman Lung Cancer Foundation and Running Lung Races were established out of the vision of Linda and her husband Jerry Wortman. Linda, who had never smoked, was diagnosed with lung cancer in 2008 and had surgery to remove part of a lung. She possessed a strong will and determination to become stronger than before surgery and to address lung health and raise awareness of lung cancer. Lung cancer is the leading cause of cancer deaths in men and women; accounting for more deaths than that of colon, breast and prostate cancers combined.

The Running Lung races have become the means to educate the community and remove the stigma that lung cancer is a smoker's disease, providing a fun rewarding platform for raising funds to support lung cancer and pulmonary research.

The Wortmans approached Dr. Bruce Johnson and his team to be part of this lung health initiative by providing a research arm to the Running Lung races. Dr. Johnson's research has three general areas of interest, including clinical physiology, environmental physiology and human performance physiology; with significant overlap across these areas. More specifically, the Johnson research lab has a strong focus on pulmonary physiology and is well suited for this partnership.

The Running Lung races provide a unique opportunity to create a longitudinal database of participants from various locations, ages, backgrounds, and lifestyles to better understand two primary questions, 1) what are the physiological, genetic and environmental factors that influence lung function and 2) why do people differ in the aging response and what role does fitness or chronic activity play?

The purpose of this study is to engage communities and enhance education on lung health and lung cancer, while investigating the influence of genetics and environment on changes in lung function as one ages. We invite race participants to participate in a research study tied to the Healthy Lung 5/10K races held across the US.

The research laboratory has performed numerous complex and comprehensive field studies in extreme locations and thus has significant experience running a community-based project such as this. We will make data collection more efficient by having the majority collected online. The study is also designed to allow easy collaboration and sharing of data with other investigators at Mayo that are focused more specifically on lung cancer risk.

The costs associated with the study will be associated with funding laboratory personnel to help guide implementation, logistics, website links – questionnaires, data capture and analysis as well as travel costs and minor expendable items. All proceeds go to lung cancer and lung health research at Mayo Clinic.

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