

# Lung Cancer in West Virginia

## Symptoms

The National Cancer Institute lists the following symptoms as possible signs of lung cancer:

- Cough that does not go away and gets worse over time
- Constant chest pain
- Shortness of breath
- Wheezing or hoarseness
- Swelling of the neck and face
- Repeated problems with pneumonia or bronchitis
- Coughing up blood
- Loss of appetite or weight loss
- Fatigue

## Risk Factors

The Centers for Disease Control and Prevention indicates some common lung cancer risk factors include:

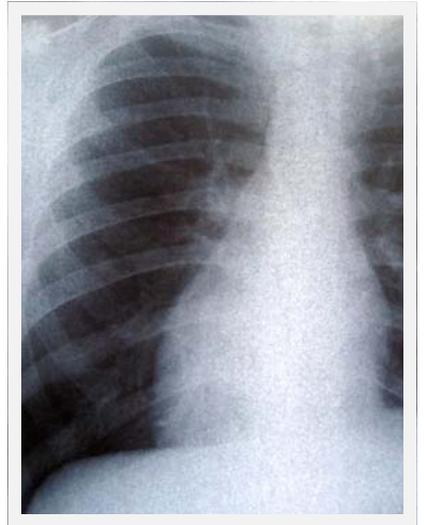
- Smoking
- Frequent heavy consumption of alcohol
- Epstein-Barr Virus (EBV)
- Human Papillomavirus (HPV)

## Why Do Some People Get Lung Cancer?

According to the National Cancer Institute, physicians cannot explain why one person develops cancer and another does not.

However, research shows that certain risk factors increase the chance that a person will develop cancer and many risk factors can be avoided.

As part of the West Virginia Bureau for Public Health, the West Virginia Comprehensive Cancer Program has compiled the latest information regarding lung cancer risk factors, symptoms, incidence rates, mortality rates, stage of disease at diagnosis, clinical advances and policy changes.



## Incidence Rates of Lung Cancer<sup>1</sup>

West Virginia has one of the highest incidence rates of lung cancer in the United States (90.5 per 100,000), second only to Kentucky.

According to the West Virginia Cancer Registry, lung cancer is the most commonly diagnosed cancer among West Virginia residents (excluding non-melanoma skin cancer) accounting for 18.6% of cancers diagnosed in the State each year.

There are obvious geographic differences in lung cancer incidence rates in West Virginia.

Rates are much higher in the southwestern region of the State (*Lincoln, Logan, McDowell, Mingo, and Wyoming Counties*).

Boone County has the highest rate (144.1 per 100,000). Hardy County, which is located in the northeastern part of the State, has the lowest rate (43.6 per 100,000).

<sup>1</sup>West Virginia Cancer Registry, 2012 Annual Report Cancer Incidence in West Virginia, (1993-2009).

## WV: Headed in the Right Direction



There has been a significant increase in the prevalence of high school students who have never used any form of tobacco, from 20.6% in 2000 to 46.1% in 2013, an increase of 124%. (WV Youth Tobacco Survey)

While all 55 counties in West Virginia have some type of smoke free public and work place laws, **16 counties recently added e-cigarettes to the list of banned substances.**

# Lung Cancer in West Virginia

## Mortality Rates

West Virginia's crude lung cancer mortality rate\* is 82.4 per 100,000.<sup>2</sup>

According to the CDC Wonder<sup>3</sup>, West Virginia ranks second in the United States for age adjusted mortality rates of lung cancer:

1. Kentucky - 73.1 per 100,000
2. West Virginia - 65.3 per 100,000

The highest crude mortality rates occur in the southwestern counties.

Webster County (119.6) has the highest rate and the lowest is in Monongalia (40.2), a northern county.<sup>2</sup>

*\*The crude mortality rate is a true picture of mortality for the State. It is the number of deaths per calendar year per 100,000 population. The crude mortality rate does not factor in the age of the population.*

<sup>2</sup> West Virginia Health Statistics Center, *Vital Statistics System, 2007-2011*

<sup>3</sup> Center for Disease Control and Prevention, *CDC Wonder 2006-2010* <http://wonder.cdc.gov/>, February 2014

## Clinical Advances

Researchers once thought that all tumors from a particular site (breast, lung, etc.) were the same and cancer treatment was based on the size of tumor, number of positive lymph nodes, or stage at diagnosis. They now realize that the molecular features of these tumors are very different and can be broken down into subtypes. The discovery of different tumor subtypes helps to explain why a cancer treatment works for one person but not another. Testing tumors for genetic changes and tumor subtype has now become a standard of care in the treatment of lung cancer. It is a step toward personalized medicine in which all of the information available is used to choose the best treatment for each person.

## Policy Changes

The US Preventive Services Task Force (USPSTF) issued and published its final recommendation on lung cancer screening on December 31, 2013. The Task Force found that low-dose CT scans (LDCT) more accurately identify early stage cancer than do other screening tests. They also found that many lung cancer deaths can be prevented by screening high-risk people every year. High-risk can be defined as people who are 55 through 80 years old, have a history of heavy smoking, and are either current smokers or who have quit within the past 15 years.

To read the full report, visit: [www.uspreventiveservicestaskforce.org](http://www.uspreventiveservicestaskforce.org)

This document was produced by the West Virginia Department of Health and Human Resources, Bureau for Public Health, Division of Health Promotion and Chronic Disease, Comprehensive Cancer Program.

The Comprehensive Cancer Program of the West Virginia Department of Health and Human Resources provided funding for this document with support from Cooperative Agreement Number 1U58DP003898-02 from the Centers for Disease Control and Prevention.

## Stage of Disease at Diagnosis

Statistics from the West Virginia Cancer Registry show:

- Only 19% of West Virginia lung cancer cases are diagnosed at an early stage (local) when chances of survival are greatest
- Approximately 72% of lung cancer cases are diagnosed at a later stage (regional/distant)
- In 9% of lung cancer cases the stage is unknown at the time of diagnosis

For information, please contact:

West Virginia  
Comprehensive  
Cancer Program

350 Capitol Street, Room 514  
Charleston, WV 25301

[www.wvcancer.com](http://www.wvcancer.com)

304-356-4193