

Risk Factors

The strongest risk factor for developing lung and bronchus cancer is cigarette smoking, which accounted for 87 percent of lung cancer deaths (and 30% of all cancer deaths). Other risk factors include exposure to secondhand smoke; occupational or environmental exposures (radon, asbestos, radiation); air pollution; and tuberculosis. An inherited genetic susceptibility may play a role in lung cancer developing in younger adults.¹



Warning Signs and Symptoms

Symptoms include persistent cough, sputum tinged with blood, chest pain, changes in your voice, and pneumonia or bronchitis that re-occurs often.¹

Early Detection

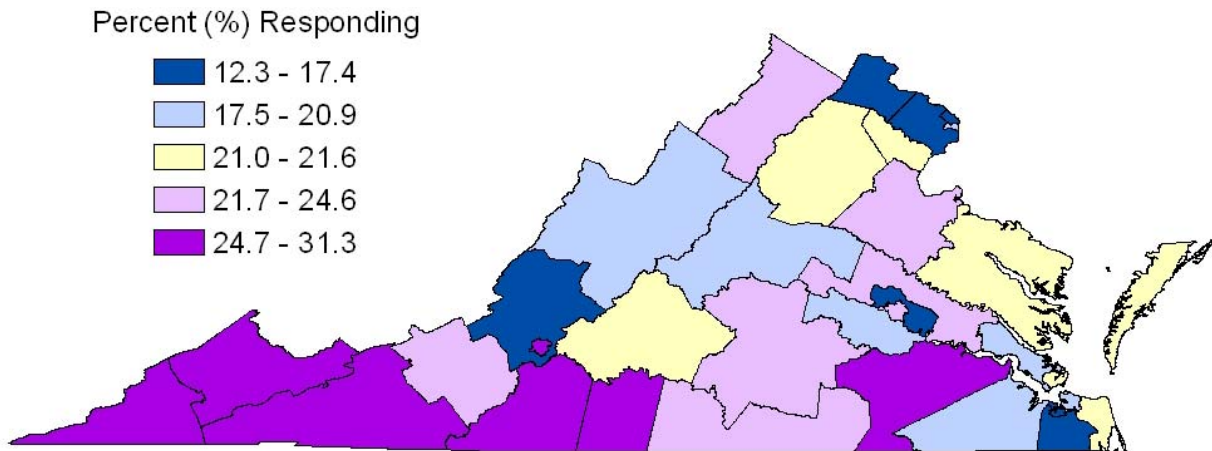
There are no known effective methods of screening for lung cancer that reduce the number of deaths. Chest x-ray, analysis of cells in sputum, and examination of the bronchial passages with a fiberoptic scope have limited effectiveness in improving survival. Newer tests, such as CT scan, show promise in detecting lung cancer at an earlier stage when it's treatable.¹

Lung Cancer in Virginia

- Lung cancer was the **second** most commonly diagnosed cancer among men and women in the U.S. and in Virginia.^{2,3} According to the American Cancer Society, an estimated **215,020 people** in the U.S., *including 5,340 people in Virginia*, will be diagnosed with lung cancer in 2008.¹
- Lung cancer was the leading cause of death due to cancer in the U.S. and in Virginia.^{2,4} An estimated **161,840 people** will die from lung cancer nationwide, *including 4,600 people in Virginia*, in 2008. Lung cancer will account for 14-15% of all new cancer cases diagnosed and 26-31% of all cancer deaths in the U.S.¹
- Between 2001 and 2005, Virginians were diagnosed with lung cancer at a rate of **66.7 cases** per 100,000,³ and died at a rate of **56.8 deaths** per 100,000.⁴ The U.S. incidence rate was 63.9 cases and the mortality rate was 54.1 deaths per 100,000. Virginia had the **18th** highest lung cancer mortality rate overall (17th for men, 23rd for women) among all states.²
- Nine of ten (94%) lung cancer cases occurred among people ages 50 and older.³ One-in-13 (7.9%) men and one-in-16 (6.2%) women will be diagnosed with lung cancer during their lifetime.¹
- In Virginia, men, especially black men, had higher rates of being diagnosed with and dying from lung cancer. White women had higher rates than black women of being diagnosed with lung cancer, but their mortality rates were similar.^{3,4} National data indicates that Hispanics, Asians, and American Indians had lower lung cancer incidence and mortality rates.²

- From 1995 to 2005, lung cancer incidence in Virginia had been declining until 2003 when it spiked—mainly due to an increase in females being diagnosed with lung cancer. Lung cancer mortality has been declining slightly over the years.^{3,4}
- The five-year relative survival rate for lung cancer is **50%** if diagnosed early.¹ In Virginia, 18% of lung cancer cases were diagnosed in the earliest (local) stage when it's most curable. Women and whites were more often diagnosed early than either men or blacks.³
- Cigarette smoking (and other tobacco use) is the leading preventable cause of death in the U.S. Smoking is linked to 30% of all cancers diagnosed and 87% of all lung cancer deaths. According to a 2006 state health behavior survey, **19.3%** of Virginians currently smoke—similar to the national rate of 20%. Current smoking rates were highest among adults who were male, under age 45, less educated, lower income, uninsured, and living with a disability.⁵ Figure 1 shows that Crater (31.3%), Lenowisco (31.2%), and Mount Rogers (29%) had the highest smoking rates among the 35 health districts.

Figure 1 – Current Cigarette Smoking by Health District, Adults 18 and Older, Virginia, 2004-2006



Source: Virginia Behavioral Risk Factor Surveillance System. Percentages are weighted.

- In Virginia, there were 3,373 inpatient hospitalizations for lung cancer that occurred in 2006, at a total charge (cost) of nearly \$129 million. The average length of stay was 7.4 days, and the average charge per stay was \$38,162.⁶

¹ American Cancer Society *Cancer Facts & Figures 2008* (<http://www.cancer.org>).

² Ries LAG, Melbert D, Krapcho M, Stinchcomb DG, et al. (eds.), *SEER Cancer Statistics Review, 1975-2005*, National Cancer Institute. Bethesda, MD: 2008 (http://seer.cancer.gov/csr/1975_2005/).

³ Virginia Cancer Registry. Based on combined data from 2001-2005. Rates are age-adjusted to the 2000 U.S. standard population.

⁴ VDH Division of Health Statistics. Based on combined data from 2001-2005. Rates are age-adjusted to the 2000 U.S. standard population.

⁵ Virginia Behavioral Risk Factor Surveillance System. Rates are population-weighted.

⁶ Virginia Health Information Hospital Discharge Patient-Level Dataset.