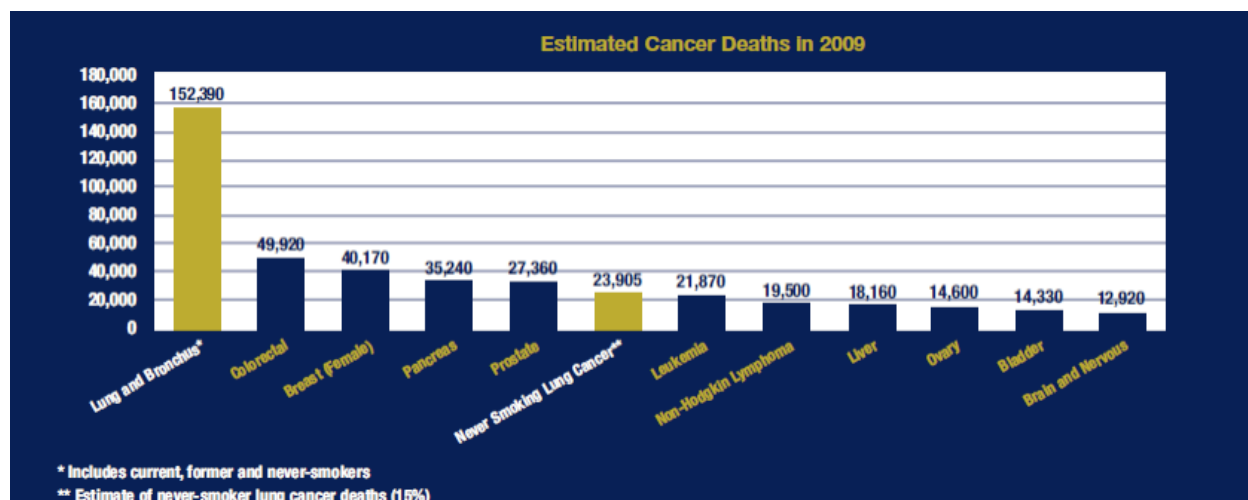


## LUNG CANCER AS IT AFFECTS VETERANS AND MILITARY

*“Lung cancer is an urgent priority among veterans. Not only is the incidence higher, but the survival is lower than in civilian populations.”*

### **Scope of the Problem:**

Overall the toll of lung cancer deaths in the United States exceeds that of the next four major cancers **combined**. On average 448 people a day will die of lung cancer.



Surveillance, Epidemiology and End Results Program: <http://seer.cancer.gov>  
[http://seer.cancer.gov/csr/1975\\_2006/index.html](http://seer.cancer.gov/csr/1975_2006/index.html)

Over the years studies have indicated higher rates of lung cancer incidence and mortality among veterans.

### **WORLD WAR II AND KOREAN WAR VETERANS**

According to a study looking back on 33 years of cause of death data for people born between 1920 and 1939, the mortality rate for lung cancer among veterans has been nearly twice that of civilians. 2,000,000 World War II and Korean War veterans died an average of 11.1 years sooner than their civilian counterparts, making the toll of premature deaths in terms of “years of life lost” greater than that of all combat casualties from both wars. In addition to higher smoking rates, veterans of these wars were exposed to asbestos which was widely used in submarines, Navy ships and as plumbing and heating insulation.

### **VIETNAM WAR**

A 1987 study of the death records of 52,000 veterans of that era showed that Marine ground troops who served in Vietnam died of lung cancer at a 58% higher rate of lung cancer than veterans who did not serve there.

In 1991 Congress directed the National Academy of Sciences (NAS) through its Institute of Medicine (IOM) to carry out comprehensive reviews and periodic updates of the scientific and medical information on the health impact of Agent Orange and other herbicides. Every report since then has cited the association of lung cancer with Agent Orange.

In 1994 the VA agreed that all veterans who served in-country Vietnam between 1962 and 1975 (including those who visited Vietnam even briefly) and who have lung cancer are automatically entitled to full compensation and disability compensation with no limit on the time since service.

*(It should be noted that studies carried out by the Australian VA found a 47% higher rate of lung cancer among its veterans who participated in the Korean War and double the rate of lung cancer cases among Australian veterans who served in Vietnam. These veterans also had lung cancer mortality rates 79% higher than expected.)*

## **GULF WAR VETERANS**

In 1998, again at the direction of Congress, the IOM began studying the health impact of the Gulf War exposure to depleted uranium, the residue left after nuclear grade uranium is extracted. Because it is even denser than lead, depleted uranium has been used in defensive armor plating and in armor-piercing projectiles, such as SCUD missiles. Like radon, which is the second leading cause of lung cancer, depleted uranium can give off radioactive products of decay that can be carcinogenic. While the first IOM report in 2000 found insufficient evidence of a definite link to lung cancer, the 2008 update now assigns "high priority" to continued review of the link with lung cancer. IOM has also been reviewing the impact of exposure to fuel exhausts, smoke from burning oil wells, kerosene cookers and heaters in enclosed tents and other battlefield emissions. The "strongest finding" was the association of combustion products and lung cancer.

## **SMOKING AND THE MILITARY**

Until 1976, cigarettes were routinely included in K-rations and C-rations and for decades sold at deeply discounted prices in commissaries and exchanges. Tobacco products are still sold at discounted prices on military exchanges and commissaries (except for Navy and Marine commissaries). Military induced smoking accounts for a significant percentage of the higher lung cancer rates, perhaps as high as 50-70% of the excess deaths. The percentage of active duty military who ever smoked was highest during the Korean and Vietnam Wars (75%). Currently overall 32.2 % of active duty military personnel smoke versus 19.8% of adults in the civilian population and 22.2% of veterans.

## **OTHER RISK FACTORS**

Other risk factors include Agent Orange, radon, asbestos, depleted uranium used in weapons and armor shielding, beryllium, fuel exhaust and other battlefield emissions.

## **DEPARTMENT OF ENERGY AND LUNG CANCER**

Munitions plant workers exposed to uranium, beryllium and other carcinogens have been routinely screened for lung cancer under the Worker Health Protection Program funded through the Office of Environment, Safety and Health of the Department of Energy. The program is being expanded to more plants in FY10.

## **DEPARTMENT OF DEFENSE AND LUNG CANCER**

Since its initiation in FY92, the Congressionally Directed Medical Research Program under the Department of Defense has funded over \$5 billion in research programs with more than half of the funding earmarked for breast, prostate and ovarian cancer research programs. In FY09 Congress established a Lung Cancer Research Program with an initial appropriation of \$20 million to focus on high risk military. Lung Cancer Alliance is strongly advocating for additional funding for FY10.

## **LEGISLATIVE HISTORY**

In the 110th Congress, the House of Representatives (H.Res. 335) and the Senate (S.Res. 87) unanimously passed resolutions urging that lung cancer be declared a public health priority that required

an urgent and coordinated public health response. In this Congress the first legislation ever to authorize a comprehensive lung cancer research program was introduced in both Houses of Congress. The bipartisan bills (H.R.2112 and S. 332) require the Departments of Health and Human Services, the Department of Defense and the Department of Veterans Affairs to develop a coordinated strategic plan for reducing lung cancer mortality by 2016.

### **UNMET NEEDS OF VETERANS AND LUNG CANCER**

Lung cancer is a stealth disease that usually takes decades to develop and fails to show obvious symptoms, such as bloody sputum, until it has already spread beyond the original site. In the general population only 16% of lung cancers are being diagnosed at an early localized stage when it can be treated and cured. Cancers with widely used screening methods (such as mammograms for breast cancer, PSA testing for prostate cancer and colonoscopies for colon cancer) have high survival rates. Currently the 5-year survival rate for breast cancer is 89%; for prostate cancer 99% and colon cancer 66%.

The 5-year survival rate for lung cancer is still only 15%, reflective of the persistent lack of adequate research funding and the pervasive blame associated with the disease. **Neither is appropriate in addressing the unmet needs of veterans who by virtue of their service are at higher risk.**

Rapid advances in imaging technology have now given those at high risk for lung cancer an option for detection at its earliest, most treatable and curable stage. Fifteen years of observational studies in the United States and abroad have demonstrated that cancers detected by CT screening are highly likely to be cured.

**Randomized controlled trials to assess the impact on mortality are also underway in the United States and abroad, but none of these trials are focused on the military or veterans. It is urgent that the unique impact of lung cancer on veterans be researched.**

Lung Cancer Alliance has consistently stated that those at high risk for lung cancer should speak with their doctors about the risk and benefits of a CT scan, and to only have it done at centers experienced in lung cancer diagnosis.

Late stage lung cancer is twice as costly to treat as early stage cancer. Even conservative estimates place the cost of lung cancer to the VA at \$1 billion a year. A study published in the April 29, 2009 *Journal of Clinical Oncology* predicts that the incidence of cancer overall will increase by 45% over the next 20 years, while the incidence of lung cancer specifically will increase by 52%. It is imperative that the VA initiate a pilot early detection research program targeting high risk veterans.

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