

# Smoking and Lung Cancer

Most of the time you are not aware of what most of the organs in your body are doing, such as your liver or gall bladder. Your heart is an important organ, but unless it's beating high and fast through exertion or stress, you hardly notice it. Even your stomach is pretty much forgettable if it isn't grumbling with hunger or overstuffed from a recent big meal. Not so with your lungs. Your lungs breathe in and out incessantly. In less than a second you are very aware they are functioning because your chest rises and falls with each breath in and out, and warm moist air passes through your mouth or nose constantly. Stop that breathing, and your body is in a fight for life in just a few minutes. The lungs are essential organs, bringing in life-giving oxygen (inhale) and removing carbon dioxide (exhale). The heart works in concert with the lungs, receiving the oxygen into the blood, pumping it through the body to every cell, then extracting and returning the carbon dioxide waste for removal from the body through the lungs.

Although the lungs can filter out some harmful chemicals in the air, they can be overwhelmed by the quantity and quality of the toxins. Smoking causes lung cancer because tobacco smoke contains at least 60 known carcinogens such as benzo(a)pyrene and Polonium-210 (a radioactive isotope). Over time, these carcinogens clog the lungs with a brown sticky substance known as tar. Tar immobilizes the cilia (small hairs) that clean and protect the lungs. Other chemicals cause DNA damage, oxidative stress and inflammation. The DNA damage and the inability of the body to make necessary repairs invite abnormal cell growth and division.

Because the lungs are so essential to life function and because lung cancer is not easy to detect and cure at an early stage, lung cancer is usually fatal, with a 5-year survival rate around 15%. In many cases the cancer metastasizes and affects other organs of the body. Most people know that smoking causes lung cancer. The surprising news is that most smokers don't believe that smoking cigarettes is harmful. Yet, smoking causes 87% of all lung cancer cases, and lung cancer is the number one cause of cancer deaths in both men and women in the United States.

## Do The Math

- A smoker is 23 times (2300%) more likely to die of lung cancer than a nonsmoker.
- A lifelong nonsmoker has less than .05% percent chance of dying of lung cancer.
- Nonsmokers have a 20-30% greater chance of developing lung cancer if they are exposed to secondhand smoke at home or work.
- Many ex-smokers believe that they are no longer at risk for lung cancer. Unfortunately, some risk of lung cancer persists for many years following smoking cessation.
- There are currently almost fifty million smokers in the U.S. and another fifty million ex-smokers. This means that approximately one third of the population of our country is at high risk for lung cancer.
- Lung cancer causes more deaths than the next three most common cancers combined (colon, breast and prostate). An estimated 160,390 deaths from lung cancer occurred in the United States during 2007.
- About six out of 10 people with lung cancer die within one year of being diagnosed.



## Smoking and Lung Cancer, cont.



By far the best way to avoid contracting lung cancer is to avoid breathing tobacco smoke. Don't smoke, don't start, and stay away from those who do. Even for ex-smokers, the prognosis is grim. The only good news is that the longer you abstain from the smoking, the better chance your lungs have of recovering from the damage you've inflicted on them.

If you smoke and wish to quit, take that step very seriously. Get plenty of support from family and friends because you are fighting a serious addiction (70% of smokers want to quit, less than 50% are successful). Talk to your physician or dentist about smoking cessation products and programs but keep in mind that many health insurance plans do not cover nicotine withdrawal. Check out the many tobacco cessation programs online including the South Dakota QuitLine. The toll free number is 1-866-SD QUIT (1-866-737-8487). The South Dakota QuitLine can help with information, coaching, discounts on nicotine withdrawal products, and free professional advice.

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For more information on tobacco and lung cancer, please visit:  
[http://www.tobacco-facts.info/lung\\_cancer.htm](http://www.tobacco-facts.info/lung_cancer.htm)  
<http://www.smokinglungs.com/>  
<http://thescooponsmoking.org>