

**Alexandra Sifferlin, TIME, August 12, 2013**

## **Surviving Lung Cancer**

New screening standards aim to save at least 20,000 lives each year.

There are 94 Million current and former smokers in the U.S. and every year, 160,000 of them die of lung cancer. That's a hard fact, based on scores of medical studies.

Now here's another: 14% of such deaths – some 22,000 lives – could be prevented, if only the patients would undergo CT screening for lung cancer. (The lesions on their lungs, once detected, would be small enough to treat). Problem is, until now there hasn't been enough evidence to suggest that the benefits of CT screening outweigh the risks and to encourage the right people to get it.

Now, thanks to a series of unprecedented large clinical trials, the U.S. Preventive Services Task Force (USPSTF) – a government-appointed panel of health experts – has issued a new and more definitive recommendation. Smokers age 55 to 80 who smoked a pack a day for 30 years or more – even if they quit within the past 15 years – are most at risk of developing lung cancer. Every year, the USPSTF says, these smokers should get a low-dose CT scan to search for possible tumors.

These standards encompass more people than the guidelines pushed by the American Cancer Society and the American Lung Association, both of which suggest an age range of 55 to 74. And that's a good thing, according to the USPSTF, because testing more people will inevitably lead to more early-stage cancer detection.

Some doctors are dubious. In addition to potential side effects of radiation exposure, they argue, more screening can lead to false-positive results, which could lead to unnecessary procedures (like biopsies) and stress for patients. With that in mind, researchers are developing other, less invasive methods. (See sidebar).

But for now, says **USPSTF co-chair Dr. Michael LeFevre of the University of Missouri in Columbia**, low-dose CT scans are the best detectors of lung cancer. And for high-risk patients – a fraction of the 94 million current and former smokers – they're worth the risk. "We do have concerns about the radiation and the high false-positive rate", he says. "**But...there are a lot of lives to be saved.**"

## **The Next Generation of Screening**

### **Blood Testing**

Researchers at the MD Anderson are identifying molecules in the blood, or biomarkers, that portend lung cancer.

### **Breath Testing**

Cleveland Clinic Researchers are developing a breath test with 80% accuracy in finding chemical profiles that indicate which patients have cancer.

### **Saliva Testing**

Scientists at MD Anderson have linked lung-cancer risks to changes in airway tissue, identified by compounds in nasal and saliva swabs of high-risk patients.