

# Annual CT Scan Best Way To Detect Lung Cancer, Doctor Says

Dr. Peter J. Julien is the chief of Thoracic Imaging and the Director of the Radio-frequency Ablation Program at Cedars-Sinai Medical Center's S. Mark Taper Foundation Imaging Center. He spoke with *The Courier* about lung cancer:

**Q:** What is your response to the study results published in the *New England Journal of Medicine* dealing with the benefits derived from the early detection of lung cancer?

**A:** Despite advances in surgery and chemotherapy, lung cancer remains the world's leading cause of cancer deaths, killing more people than breast, colon and prostate cancer combined.

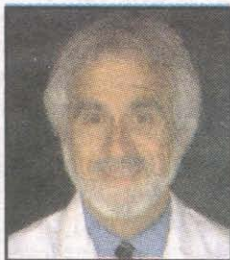
Results from a recent study in the *New England Journal of Medicine* led by Dr. Claudia Henschke, a professor of radiology at Weill Cornell Medical College in New York City, suggest that patients at risk for lung cancer (those with a history of smoking, occupational exposure to asbestos, beryllium, uranium or radon, or exposure to second-hand smoke without having

smoked themselves) can benefit from an annual CT screening that can detect the disease in its early stages, when it is curable.

**Q:** What is the most effective way to detect lung cancer?

**A:** Based on a previous study published in the English medical journal *Lancet*, Dr. Claudia Henschke demonstrated that the CT scanner is four times more sensitive to the detection of small lung cancers than the chest X-ray.

Using the CT scanner radiologists can detect lung cancers as small as three to four millimeters in size, or about the size of a grain of rice. The recent study in the *New England Journal of Medicine* deals with the potential benefits derived from using a CT scanner to detect lung cancer at this small size.



**Peter Julien M.D.**

**Q:** What are the chances of a full recovery once lung cancer is detected?

**A:** The possibility of being cured with surgery for lung cancer has to do with two factors:

1.) The stage of the lung cancer at the time of diagnosis. That is to say that small lung cancers without evidence of spread to other parts of the body obviously have a much greater chance of the patient being cured when surgery occurs as opposed to lung cancers that are detected in a more advanced stage; and,

2.) The chances of a full recovery have to do with the individual biologic behavior of the cancer. What this means is that there are some cancers that even though they are detected early are aggressive and will spread in spite of this early detection.

However, based on the data published by Dr. Henschke it does appear that although the individual biologic behavior of a cancer certainly plays a role in the patient's survival, those who had lung cancers detected by the CT scanner when they are very small did seem to significantly do

better over a 10-year period of time than those patients whose cancers were detected at a more advanced stage.

Dr. Henschke's data showed an 80 to 90 percent 10-year survival in those cancers detected in an early stage by CT scanning and especially those having surgery within one month to remove that cancer. This data is substantially better than the survival data published previously.

**Q:** What is the definition of a "five-year survival rate?"

The standard method of determining whether or not the patient is cured of lung cancer is referred to as a five year survival rate. This means that at the five year point from the time of diagnosis what is the likelihood that the patient will be disease-free and have no evidence for residual cancer.

Statistically, if the patient survives five years we consider that patient cured from that malignant disease. There are occasional exceptions where patients do have recurring cancer after the five-year period of time.