

The United States Preventive Services Task Force has issued draft recommendations to screen individuals at risk of lung cancer using **low dose helical CT**. These recommendations are based largely on the results of one large trial, the National Lung Screening Trial (NLST), which was conducted at multiple institutions across the United States, including **UCLA Health**.

All tests have some associated risks. The following information summarizes the risks and benefits of lung cancer screening that are currently known.

#### **Benefits of Low Dose Lung CT Screening Relative to NO Screening With Low Dose CT (Based on the NLST)**

- Lung cancer deaths were decreased by 3-4 per 1000 individuals screened with low-dose CT
- Deaths from all causes were decreased by 5 per 1000 individuals screened with low-dose CT.
- Overall, 320 people need to be screened to prevent 1 death from lung cancer. In comparison:
  - 351 women aged 50-57 must be screened with mammography to prevent 1 death from breast cancer
  - 817 people must be screened with sigmoidoscopy to prevent 1 death from colon cancer.

#### **Potential harms of low dose CT for lung cancer screening**

There are risks associated with low-dose CT screening for lung cancer. These include:

- Small nodules are seen in about 20% of patients who undergo low-dose CT scans.
- Most small nodules (95%) turn out not to be cancerous.
- The evaluation of indeterminate nodules typically involves repeat low dose CT scans at 3-6 months to confirm that the nodules have not changed.
- Some positive screens require invasive procedures (including surgeries) that have associated risks.
- Radiation risks: Low-dose CT scans are done at low radiation doses averaging about 1/5 (20%) the dose of routine CT scans. None the less, radiation from CT scans at any dose carries a very small risk of causing cancer many years later. In people who have smoked enough, the *benefits of screening are believed to outweigh the risks of radiation*.
- Not all lung cancers will be detected by screening.

#### **Features of individuals Currently Recommended For Screening**

- Age between 55-79 years
- Heavy smoking history (at least 30 pack-years)
- Current smokers or former smokers who have quit smoking within the past 15 years
- You may have additional risk factors for lung cancer that we will discuss with you.

Major medical organizations strongly recommend that screening be done only at facilities like UCLA that have dedicated experts in lung cancer screening, diagnosis, and treatment.

At this point, not all insurance plans pay for these screening CT scans.

If screening is right for you, we will arrange for the scan and a follow up visit to discuss the results.

*If you are still smoking, the single best way to minimize lung cancer is to stop smoking. We would like to talk to you about your smoking habits and will be glad to assist you in smoking cessation through counseling and/or medications to reduce your dependence on tobacco.*

Smoking cessation and lung cancer screening are currently the best ways to prevent deaths from lung cancer. Individuals who have quit smoking have already reduced their odds of developing lung cancer, but are still at risk. We encourage individuals at high risk of lung cancer to consider low-dose screening with CT.