

**How does the ProLung Test™ work?**

The ProLung Test is based on bioconductive technology. It is not known precisely why malignant cells have a different dielectric constant than non-malignant tissues. Proposed mechanisms include altered ionic channels in cell membranes, different metabolic rates and changes in water content. Regardless of the exact mechanism causing the change in the dielectric constant, bioconductive technology uses this disparity in bioconductance to offer additional information for evaluating lung nodules.

**Can the ProLung Test be used on areas of the body other than the lung?**

The ProLung Test is designed only to assess patients with lung nodules and has not been tested on other potential cancer sites.

**How do pneumonia and other pulmonary pathologies alter the ProLung Test result?**

The ProLung Test may be influenced by inflammation. Patients with active infection, chronic inflammation or who are receiving high-dose systemic anti-inflammatory medication (i.e. corticosteroids) have been excluded from clinical studies of the ProLung Test. Patients receiving the ProLung Test will have had a CT scan to identify a lung nodule. Prior to the ProLung Test, patients should also be screened for active infection and/or chronic inflammatory conditions. It is not known how such conditions may affect the ProLung Test result.

**Can the ProLung Test be used as a screening tool prior to LDCT scanning?**

The ProLung Test was not studied as a screening test. It is to be used in assessing the likelihood of malignancy in pulmonary nodules identified by CT scanning which are suspicious for lung cancer.

**How do size, location and radiologic appearance of a lung nodule affect ProLung Test results?**

The ProLung Test assesses the bioconductance of the chest in patients with a nodule and produces a numeric score suggesting a higher risk of malignancy or increased likelihood of benignity. The ProLung Test does not assess the size, location or radiographic appearance of a lung nodule.

**Are there contraindications to the ProLung Test?**

The ProLung Test has not been assessed in patients with implanted electronic devices. Because the ProLung Test may be influenced by inflammation, patients with active infection, chronic inflammation or who are receiving high-dose systemic anti-inflammatory medication (i.e. corticosteroids) have been excluded from trials of the ProLung Test.

**Does the ProLung Test provide an image of the nodule and surrounding tissue?**

The ProLung Test does not produce an image and does not evaluate a single nodule, rather it assesses the bioconductance of the chest in patients with a nodule and produces a numerical score suggesting a higher risk of malignancy or increased likelihood of benignity.

**What information is provided in a ProLung Test report?**

The ProLung Test report provides a numeric score with an interpretation of that score relative to lung cancer risk.

**What is sensitivity and specificity of the ProLung Test?**

In a prospective study conducted at Johns Hopkins University School of Medicine and published in the *Journal of Thoracic Oncology* in April 2012\*, the ProLung Test discriminated between malignant lesions (29 primary lung cancers) and benign pathology (12) across a range of pulmonary nodules sizes (0.8 cm and greater) with a sensitivity of 89.7% (positive predictive value 96.3%) and specificity of 91.7% (negative predictive value 78.5%). According to this study, the technology seems to be effective across a range of tumor sizes, thoracic locations, cell types, and stages.

**What is the positive predictive value & negative predictive value of the ProLung Test?**

In a prospective study conducted at Johns Hopkins University School of Medicine and published in the *Journal of Thoracic Oncology* in April 2012\*, the ProLung Test discriminated between malignant lesions (29 primary lung cancers) and benign pathology (12) across a range of pulmonary nodules sizes (0.8 cm and greater) with a sensitivity of 89.7% (positive predictive value 96.3%) and specificity of 91.7% (negative predictive value 78.5%).

This high positive predictive value of the ProLung Test functions to complement the high sensitivity and low specificity of low dose computed tomography (LDCT) screening and to expedite the further evaluation of potential malignancy. Because the ProLung Test was not designed as a screening test, the negative predictive value was developed to facilitate a higher specificity and positive predictive value.

\**J. Thorac. Oncol.* 2012 Apr; 7(4):681-9.

**Transcutaneous computed bioconductance measurement in lung cancer: a treatment enabling technology useful for adjunctive risk stratification in the evaluation of suspicious pulmonary lesions.**

Rex C. Yung, MD; Ming Ying Zeng, MD; Gregory J. Stoddard, MS; Michael Garff, BS; Karleen Callahan, PhD.