



以嶄新技術
及早發現肺癌
救回生命

Innovative
early detection of
lung cancer
**SAVES
LIVES**

簡單的
抽血程序

即能及早檢測肺癌

A simple
blood test

can aid in early detection of lung cancer

早期肺癌測試
Early Lung CDT

**Early Lung Cancer
Detection Test (Early Lung CDT)**

專為檢測肺癌的自身抗體血液測試

Autoantibodies Panel Blood Test for Lung Cancer

頭號癌症殺手

肺癌是全球頭號癌症殺手，每年死於肺癌的人數比起乳癌、腸癌、肝癌、前列腺癌、腎臟癌，和黑色素瘤全部加起來還要多^[1]。在香港，單在2012年因肺癌而死亡人數是腸癌的兩倍，及乳癌的六倍^[2]。

[1] <http://www.lungcancerfoundation.org/about-lung-cancer/fact-sheets/>

[2] Hong Kong Cancer Registry. Overview of 2012 Hong Kong Cancer Statistic. 香港癌症資料統計中心。2012年香港癌症數據。

No.1 Cancerous Killer

Lung cancer is the number one cancerous killer in the world and has taken more lives each year than breast, colon, liver, prostate, kidney and melanoma cancers combined^[1]. Locally, lung cancer has killed two times more than colorectal cancer and six times more than breast cancer in 2012 alone^[2].

Statistic of Leading cancer deaths and number of new cancer cases in 2012
2012年主要因癌症導致死亡個案及新增案例數據

Cancer types 癌症類別	Ranking for cancer deaths 癌症死亡率排名	Cancer deaths 癌症死亡人數	New cancer cases 新增癌症案例
All cancers 所有癌症	—	13,336	27,848
Lung cancer 肺癌	1	3,893	4,610
Colorectum cancer 大腸癌	2	1,903	4,563
Liver cancer 肝癌	3	1,505	1,790
Stomach cancer 胃癌	4	657	1,113
Breast cancer 乳癌	5	604	3,522

香港主要癌症導致死亡病例 (不分男女) Leading cancer deaths and leading cancer sites in Hong Kong (Both genders combined)^[2]

在多數病例當中，肺癌通常都是在較後期出現徵狀時（例如呼吸困難、持續性咳嗽、胸口、肩膀及背痛等）才被診斷出來。肺癌的「五年存活率」僅少於18%，其原因是過半數（57%）的病者只能在癌症後期才被發現。當癌細胞擴散到體內其他器官後，病人的「五年存活率」將低至4%^[3,4]。要治好肺癌，其困難之處是要在早期當病徵還未顯現之前就已經確診出來。

[3] U.S. National Institutes of Health, National Cancer Institute. SEER cancer statistics. 國立衛生研究院(美國)·美國國家癌症研究所·SEER 癌症統計。

[4] American cancer society, Cancer facts and figure 2007. 美國癌症協會。2007年癌症實況及數據。



No. 1

In the majority of cases, lung cancer is not diagnosed until the latter stages when physical, non-specific symptoms such as shortness of breath, persistent coughing, chest, shoulder and back pains appear. The 5-year survival rate of lung cancer is less than 18% since more than half of the cases (57%) can only be diagnosed in the latter stages. When the cancer cells have spread to other organs the 5-year survival rate drops to a devastating 4%^[3,4]. The challenge is to identify lung cancer individuals early, before symptoms appear.

影像診斷能否在早期發現肺癌嗎？不能

即使每年作胸肺X光影像診斷，亦不能顯著地降低肺癌的死亡率^[5]。

Is imaging the answer for early detection? No

Annual screening with chest X-rays has not significantly reduced lung cancer mortality^[5],



最近的研究顯示使用電腦掃描 (CT Scan) 雖然能讓肺癌的死亡率減少 20%，但該研究亦包含了很多假陽性結果^[6]。研究更指出電腦掃描的準確率約為 50%^[7,8]，而「早期肺癌測試」則有著 91% 的特異度和 41% 靈敏度，並有著 92% 的總準確率，即是說，它能顯著地提高發現肺癌病例^[9]。

LUNG
CDT

and while recent studies have shown that Computed Tomography (CT) scans provided a 20% reduction in lung cancer mortality, the results also encompassed high false positive results^[6]. Studies have also indicated the overall accuracy rating was around 50% with CT scans^[7,8]. However, **Early Lung CDT has a specificity of 91% and sensitivity of 41%, with an overall accuracy rating around 92%**, meaning a significant increase of lung cancer cases being correctly identified^[9].

[5] Oken MM, et al, JAMA 2011 [Oken MM, et al, 美國醫學雜誌 2011]

[6] The National Lung Cancer Screening Trial Research team, NEJM 2011
國立肺癌篩查試驗研究團隊，新英格蘭醫學雜誌 2011

[7] Swensen SJ, et al, Radiology 2005 [Swensen SJ, et al, 放射學雜誌 2005]

[8] Nawa T et al, Chest 2012 [Nawa T et al, 胸科雜誌 2012]

[9] Chapman CJ et al, Tumor Biol, 2012 [Chapman CJ et al, 腫瘤生物學 2012]

自身抗體測試能解決問題嗎？

在腫瘤的生長初期（約頭 5 年），身體會開始產生自身抗體來對抗肺癌細胞或它們的蛋白質。憑藉「早期肺癌測試」的先進技術，我們就能在血液中探測到這些自身抗體，以作為警號，及早對抗這致命的癌症。而像其他種類的癌症一樣，愈早能夠發現癌症，能夠成功治療的機會就愈高。

註1：此測試專為篩查而設，並不適用於診斷及 / 或治療之用。

註2：此測試並不推薦給曾經診斷患有癌症，或正在患病的病人，因肺癌的自身抗體有可能在其他種類的癌症中出現。

There is no recognised early lung cancer detection until now “Early Lung CDT”

在「早期肺癌測試」出現之前，以往並沒有其他方法能在肺癌初期作出有效的檢測。

Could Autoantibodies Detection Technology be the answer?

In the early period of the development of a tumour (approximately 5 years), the body starts to fight the disease by developing autoantibodies to counteract the lung cancer cells or its proteins. With the advancement of technology, Early Lung CDT (Early Lung Cancer Detection Test) has been specially developed to detect these autoantibodies in the blood to act as an early warning signal for the deadly disease and, as it is with any cancer, the earlier it is detected the greater the success rate of the treatment.

Note 1: This test is intended for screening purposes only and serves no purpose for diagnosis and/or treatment.

Note 2: This test is not recommended for those with a current or prior diagnosis of cancer, since autoantibodies in the test panel can occur in other cancers of non-lung origin.



腫瘤的尺寸 Size of Tumor

既安全又可靠的早期檢測

「早期肺癌測試」是一個簡單、清潔，和有效的肺癌檢測方法。不像其他影像檢測方法，例如X光影像、電腦掃描(CT Scan)，和斷層掃描(PET Scan)等，「早期肺癌測試」無需受測者接觸任何輻射，這樣令篩查測試更為安全。最重要的，是可讓受測者能安全地作定期性的測試。

「早期肺癌測試」是一個乾淨、快捷，和高效的肺癌檢測方法，只需簡單的抽血程序，就能進行。它能檢測自身抗體是否存在－身體因患有肺癌及癌細胞生長而自動作出的反應。這肺癌檢測的準確率高達92%，當身體正在對抗肺癌時，「早期肺癌測試」就能檢測到這自身反應。它能让患者趁早期還能醫治時及早展開治療。

「早期肺癌測試」是設計來檢查血液中的自身抗體，讓它們成為早期患病的警號。當測試結果顯示血液內一種或以上的自身抗體的數量有增加的跡象時，我們會建議受測者再作電腦掃描以作進一步防範。假如血液測試呈現陰性反應，這當然是好，但我們還是高度建議應定期作「早期肺癌測試」。

Test method 測試方法	Methodology 測試原理	Accuracy* 準確率*	Potential health hazardous 潛在風險
Early Lung CDT 「早期肺癌測試」	Autoantibodies in blood 血液中的自身抗體	92% ⁽⁹⁾	No 沒有
CT scans 電腦掃描	Imaging 造影測試	50% ⁽⁷⁾	Exposure to radiation 暴露於輻射中

Accuracy* = (True Negative + True Positive) / (True Negative + True Positive + False Negative + False Positive)

準確率* = (真陰性 + 真陽性) / (真陰性 + 真陽性 + 假陰性 + 假陽性)

Safe and Reliable Early Detection

The Early Lung CDT is a simple, clean and efficient method of early detection for lung cancer. Unlike imaging methods, such as X-rays, CT scans and Positron Emission Tomography (PET) scans, Early Lung CDT does not expose the examinee to any kind of radiation. This makes it a far safer form of screening and, most importantly, can be performed on a regular basis.

The Early Lung CDT is clean, quick and efficient. A sample of the examinee's blood is taken for examination and tested for the presence of autoantibodies – a natural bodily response to the presence and growth of lung cancer. With an accuracy rating around 92%, when your body is already trying to fight the disease, Early Lung CDT will have a chance to detect it. Early Lung CDT can enhance the detection of the presence of life-threatening lung cancer early on, while it is still treatable.

The Early Lung CDT is designed to specifically detect the chosen panel of autoantibodies in the blood and serves as an early warning indicator, further preventative steps with CT scans is still recommended if results indicate an elevated level of one or more autoantibodies present in the blood sample. If the results are negative, it is positive for you, but screening with Early Lung CDT at regular intervals is highly recommended.

適合作定期檢查

普羅大眾通常都誤解只有吸煙者才會患上肺癌。即使吸煙已經跟肺癌拉上了密切的關係，可是真相卻讓人吃驚，因為每個人，無論吸煙與否，都有機會患上肺癌。現在有了「早期肺癌測試」，大眾就能以一個更安全和簡易便捷的方法去對這頭號癌症殺手作出篩查。絕大多數的肺癌病例都是當身體出現明顯病徵後才被確診出來，對病人而言已經是太遲－現在就進行「早期肺癌測試」，或能及早發現，救回一命。

「早期肺癌測試」不需運用創傷性的方法，亦不用暴露於輻射之中，便能夠在作常規性的身體檢查或從個別測試中抽血作檢驗。

即使這個測試是為**中度或高度患肺癌風險者**而設－即合乎年齡（40歲或以上）、有吸煙習慣、有家族病例，及環境因素（例如常接觸氡氣、石棉、放射性物質等），儘管如此我們應該時刻提醒自己，每個人，不論吸煙與否，都有機會患上肺癌。假如您想知道多一點相關資訊，請致電給我們，或向醫生查詢。

In collaboration with Oncimmune (UK)
The Power to Know

與 Oncimmune (UK) 合作 - 了解一切就是力量

Suitable for Regular Checkups

A common misconception about lung cancer is that only smokers contract it. Although smoking is heavily connected to lung cancer, the truth is far more frightening. Anyone can be at risk, and with Early Lung CDT, it's now safer and easier than ever to screen against the world number one cancerous killer.

With the majority of lung cancer cases, patients go through the typical examinations only after physical symptoms have developed, at which point it may already be too late – **Acting now could save your life!**

There are no invasive procedures; no exposure to radiation and it can be performed as part of a regular body check or standalone test simply by drawing blood from the examinee. Although the test is intended for **moderate and high-risk examinees** – people who are more at risk due to factors such as **age (40 or above), smoking history, family history and environmental exposures** (radon, asbestos, radioactive substances etc) – it is best to remember that anyone can be at risk from lung cancer. For further information, please call us or consult your doctor.

