呼吸
與肺癌共存
希望

非小細胞肺癌
常見問題解答

Frequently Asked Questions About
Non-Small Cell Lung Cancer

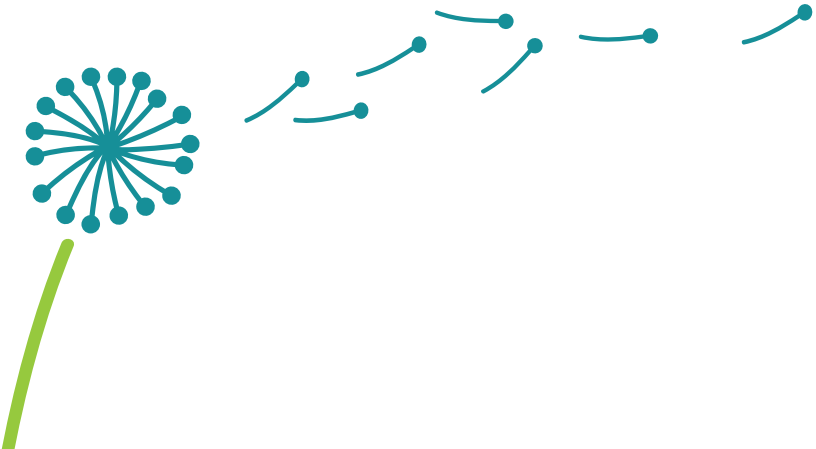
www.livingwithlungcancer.asia

本單張的內容旨在解答一些有關非小細胞肺癌(NSCLC)的常見問題。

This NSCLC FAQ leaflet answers some common questions for patients with non-small cell lung cancer (NSCLC).

這裡提供的資料僅供教育或參考用途，並不能取代醫生和其他醫護專業人員的意見。如果您對自己的疾病有任何疑問，請諮詢醫生或醫護專業人員。

The information presented here is for educational purposes only and should not replace the need for treatment consultation from a qualified healthcare professional. If you have any questions about your medical condition, please talk to your doctor or healthcare professional.



NSCLC

非小細胞肺癌有多常見？

幾十年來，肺癌一直是世界上最常見的癌症[1]**。 在2012年，全球約有 180 萬個新病例**[1]**，**其中中國有超過 60 萬宗[1]、台灣有 1 萬多宗[2]，香港有4,500多宗[3]。非小細胞肺癌是最常見的肺癌種類，約佔肺癌的 80–85%[4]。

什麼是非小細胞肺癌？

肺癌可分為兩大種類：小細胞肺癌 (SCLC) 及非小細胞肺癌 (NSCLC)[4]**。**診斷肺癌往往由放射學檢查開始，從而識別出肺內可疑的病變。醫生可能會建議進行活組織檢查，取出細胞樣本進行檢查。確定肺癌是屬於小細胞肺癌或非小細胞肺癌，這對決定治療方法很有幫助。此外，還有一些癌症特質也很重要。病理學檢查可顯示癌症是屬於鱗狀細胞癌或腺癌；某些特定的基因突變測試也可對治療選擇有很大幫助[4]。

非小細胞肺癌的成因是什麼？

非小細胞肺癌的形成可能與基因及環境因素有關，但和其他癌症一樣，其成因通常不明[4]**。**接觸某些化學和輻射物質例如石棉、氡氣等，可能是非小細胞肺癌的風險因素[4]。經常吸煙可能是最大和最能被確認的風險因素，但這並不等於只有吸煙者或接觸二手煙的人士才會受肺癌影響[4]。我們需要知道，並非每個接觸風險因素的人士都會出現癌症，有些癌症患者可能並無任何已知的風險因素[4]。

我如何確定自己患上非小細胞肺癌？

非小細胞肺癌的徵狀可包括咳嗽、氣促、疲累、聲音沙啞、胸痛、食慾不振、體重下降等[5]**，**但這些徵狀並不足以讓醫生確診。非小細胞肺癌的診斷基於多種檢查的結果，包括放射學檢查、組織病理學檢查。基因突變測試也可提供特定腫瘤分子特徵的資料。

非小細胞肺癌

我聽說癌症可分為不同的期數，這代表什麼？

癌症分期是醫生用於判定患者體內癌症嚴重程度和癌症是否已擴散至身體不同部位的一種方法[6]。常用的非小細胞肺癌分期方法是將癌症分成四期：第I期、第II期、第III期、第IV期[6]。一般而言，癌症期數越小，預期結果越佳。第 IV 期是非小細胞肺癌的末期，癌症已擴散至兩側肺、肺部周圍的液體或身體其他部位，例如肝臟或其他器官[6]。

非小細胞肺癌可以治療嗎？

非小細胞肺癌有多種治療選擇，包括手術、放射治療、化療、標靶治療、免疫療法、姑息療法等[7]。並非每種治療方法都適合每個患者，醫生會根據癌症類型和分期，幫助您瞭解適合您的治療選擇。

非小細胞肺癌常見的基因突變是什麼？

醫學研究發現，某些肺癌的發生是因為細胞的某些基因出現突變[8]。在肺癌中可以找到多種基因突變，例如 EGFR、ALK、KRAS 和 ROS 基因突變[9]。

- 表皮細胞生長因子受體 (EGFR) 基因突變是肺癌其中一種最常見的基因突變[10]。在晚期非小細胞肺癌患者當中，EGFR基因突變的發生率在亞裔患者佔30–40%；在非亞裔患者佔 10–20%[11]。
- 約有 5% 的非小細胞肺癌會出現間變性淋巴瘤激酶 (ALK) 基因突變[4]。這種基因突變在非吸煙或輕量吸煙的非小細胞肺癌腺癌患者中較常見[4]。

EGFR

表皮細胞生長因子受體

為什麼瞭解EGFR基因突變很重要？

晚期非小細胞肺癌有兩種主要的治療選擇：化療和標靶治療。瞭解 EGFR 基因突變很重要，這有助醫生判斷哪種治療對患者最爲合適。醫學研究顯示，對比標準化療與標靶治療，EGFR 基因突變陽性腫瘤患者能在標靶治療中獲得較大益處，而 EGFR 基因突變陰性腫瘤患者就較能從化療中獲益 [12]。

醫生說我的腫瘤正在惡化，這是什麼意思？

癌症持續生長或擴散稱為惡化，這甚至可發生在腫瘤對治療有良好反應後一段時間才出現。

我以為我的癌症對 EGFR 酪胺酸激酶抑制劑 (EGFR TKI) 標靶治療有良好反應，爲什麼會惡化呢？

大部分接受一線 EGFR TKI 標靶藥物治療的晚期非小細胞肺癌患者都能在一段時間內對治療有良好反應，但最終會對藥物產生抗藥性 [13,14]**。**研究發現，在對一線 EGFR TKI 標靶治療產生抗藥性而病情惡化的患者中，有三分之二病例可能與出現 EGFR T790M 基因突變有關 [13]。其他抗藥機制包括：HER2 基因擴增、MET 基因擴增以及小細胞的組織學轉化 [13]。

什麼是EGFR T790M 基因突變？

對於EGFR 基因突變型肺癌而言，T790M 是第二重突變，這會進一步改變 EGFR 蛋白，令腫瘤對 EGFR TKI 標靶藥物治療產生抗藥性。EGFR T790M 基因突變與一線 EGFR TKI 標靶藥物治療的抗藥性有關，並且最爲常見 [13]。

我如何才能知道我是否有 EGFR T790M基因突變？

要知道患者是否有 EGFR T790M 基因突變，唯一的方法是進行測試。這能幫助識別該基因突變，並有助治療選擇的決定。一般來說，爲了獲得準確的測試結果，需要在疾病惡化時重新做一次活組織檢查以進行基因突變測試。但現在可以利用腫瘤組織以外的生物樣本進行測試，例如從血漿中抽取循環腫瘤去氧核糖核酸 (ctDNA) 作檢查 [15]。

現在已有專門針對 EGFR T790M 基因突變的治療藥物。您可以向醫生諮詢有關的治療選擇。

NSCLC

How common is NSCLC?

Lung cancer has been the most common cancer in the world for several decades.[1] In 2012, around 1.8 million new cases were diagnosed worldwide,[1] including over 600,000 cases in China,[1] more than 10,000 cases in Taiwan,[2] and over 4,500 cases in Hong Kong.[3] NSCLC is the most common type of lung cancer, representing 80-85% of all lung cancers.[4]

What is NSCLC?

NSCLC describes 1 of the 2 broad groups of lung cancers: small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC).[4]
Diagnosing lung cancer often begins with a radiologic examination that identifies a suspicious area in or around your lungs. Your doctor will probably recommend a biopsy, during which a sample of cells are removed for examination. Knowing if your cancer is SCLC or NSCLC is helpful for determining treatment, but there are many additional cancer characteristics that can help guide you and your doctors.
The histopathology examination may indicate if your cancer is squamous cell or non-squamous (such as adenocarcinoma).
There are also important genetic (also called molecular) tests that may have important implications for your treatment options.[4]

What causes NSCLC?

NSCLC may occur as a result of genetic and environmental factors, though like many cancers its cause is often unknown.[4] Exposure to certain chemicals and radiation, such as asbestos and radon, may be risk factors for developing NSCLC.[4]
Active cigarette smoking is perhaps the largest and most well-established risk factor, but smokers or those exposed to cigarette smoke are not the only ones affected.[4] It is important to recognise that not everyone exposed to a risk factor will develop cancer, and some cancer patients may have no known risk factors.[4]

How do I know if I have NSCLC?

The symptoms of NSCLC, which may include cough, shortness of breath, fatigue, hoarseness of the voice, chest pain, loss of appetite, and weight loss,[5] are not enough for your doctor to diagnose you. The diagnosis of NSCLC is based on a combination of radiologic examinations and tissue histopathology. Molecular tests may also provide more specific information on your particular cancer.

I have heard of cancer having a "stage", what is that?

Staging is a process in which your doctor determines how much cancer is within the body and whether it has spread to different parts of the body.[6] The common staging system of NSCLC involves 4 cancer stages: I, II, III, and IV.[6] Generally, the lower the cancer stage, the better the expected outcome. Stage IV is the most advanced stage of NSCLC in which the cancer has spread to both lungs, to fluid in the area around the lungs, or to another part of the body, such as the liver or other organs.[6]

Is NSCLC treatable?

There are several treatment options for NSCLC, including surgery, radiotherapy, chemotherapy, targeted therapy, immunotherapy, and palliative treatments.[7] Not every treatment is right for every patient. Your doctor will help you understand the benefits you could expect from a treatment based on the type and stage of cancer you have.

What are the common genetic mutations in NSCLC?

Medical studies have discovered that the growth of some lung cancers depends on the presence of certain genetic mutations in the cancer.[8] Many types of gene mutations such as epidermal growth factor receptor (EGFR), anaplastic lymphoma kinase (ALK), Kirsten rat sarcoma viral oncogene homolog (KRAS) and proto-oncogene tyrosine-protein kinase ROS (ROS) mutations have been found in lung cancer.[9]

- EGFR mutation is the most common type of gene mutation in lung cancer,[10] present in the tumours of 30-40% of Asian and 10-20% of non-Asian patients with advanced NSCLC.[11]
- About 5% of NSCLCs have a rearrangement in a gene called ALK.[4] This change is most often seen in non-smokers (or light smokers) who have the adenocarcinoma subtype of NSCLC.[4]

EGFR

Why does knowing my EGFR mutation status matter?

In advanced NSCLC, there are two main treatment options: chemotherapy and targeted therapy. Knowing your mutation status will help your doctor determine which treatment will work best for you. Medical studies have shown that patients with EGFR mutation-positive tumours gain more benefit from targeted therapies than with standard chemotherapy, while patients with EGFR mutation-negative tumours gain more benefit from chemotherapy than with targeted therapies.[12]

My doctor said the tumour is progressing, what does that mean?

Continued growth or spread of cancer is called progression, which may happen even after a tumour has initially responded to treatment.

I thought my cancer was responding well to EGFR TKI therapy, why has it progressed?

Most advanced NSCLC patients receiving first-line EGFR TKI treatment will respond well to it for a period of time, but will eventually develop drug resistance.[13] Studies have found that as many as 2 out of 3 cases of progression with first-line EGFR TKIs may be related to the EGFR T790M mutation.[13,14] Other changes that might cause a tumour to be resistant include human epidermal growth factor receptor 2 (HER2) amplification, MET proto-oncogene, receptor tyrosine kinase (MET) amplification, and small cell histologic transformation.[13]

What is an EGFR T790M mutation?

For EGFR-mutated lung cancer, T790M is an additional mutation, which further changes the EGFR protein and allows the tumour to become resistant to EGFR TKI therapy. T790M mutation in the EGFR gene is most frequently reported to associate with the resistance to first-line EGFR TKI treatment.[13]

How will I know if I have EGFR T790M mutation?

The only way to know if you have EGFR T790M mutation is to get tested. This helps identify the mutation and guides treatment options. In general, a fresh sample and test at progression is needed to get accurate results. However, biological samples other than tumour tissue can be used, such as circulating tumour DNA (ctDNA) taken from plasma samples.[15]

Treatments that target the EGFR T790M mutation are available. Talk with your doctor about your options.

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