呼吸
與肺癌共存
希望

認識非小細胞肺癌

Understanding Non-Small Cell Lung Cancer

為肺癌患者
傳送呼吸希望

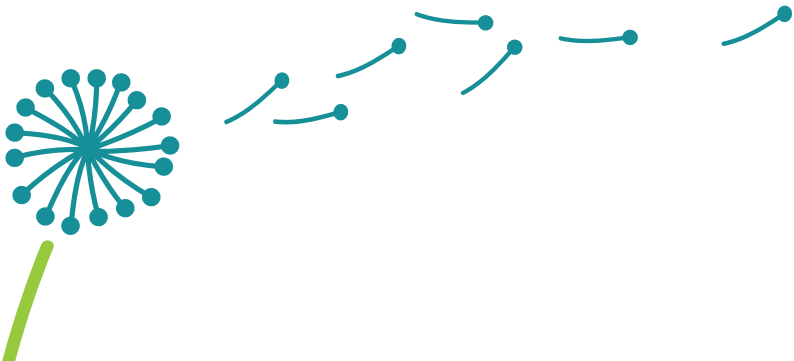
Sending a breath of hope
to all of those touched by lung cancer

呼吸希望

對於肺癌患者來說，通往疾病緩解之路艱辛漫長。

對於他們，每次呼吸都是如此珍貴、如此難得，每次呼吸都是生存的希望。醫學昌明，使得患者可以與肺癌共存，讓他們能與家人摯愛共享更多珍貴時光。 讓我們一同攜手，表達我們的關懷和鼓勵，爲他們傳送呼吸希望。 欲瞭解更多詳情，請瀏覽：

www.livingwithlungcancer.asia



肺癌重要統計數據

肺癌是最常見的癌症之一，也是全球與本港的頭號致命癌症殺手[1,2]。

2012年全球約有

180萬

宗新病例[1]

中國[1]
600,000+

台灣[3]
10,000+

香港[4]
4,500+

每年全球肺癌死亡個案超過

1,600,000宗[5]

2014年約有3900港人死於肺癌，佔香港所有癌症死亡個案28%[6]。

大部分早期肺癌

病徵不明顯

患者發現時，
病情已達末期[7]。

即使出現徵狀，例如

咳嗽、氣促和胸口痛

亦會誤為其他健康問題[7]。

肺癌分類

大部分肺癌可以分為兩大類：

NSCLC

非小細胞肺癌：
約佔肺癌的 80-85% [7]

SCLC

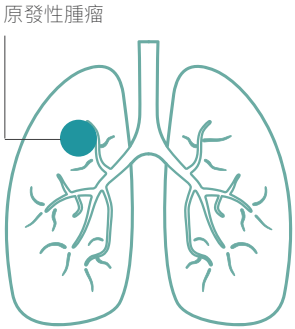
小細胞肺癌：
約佔肺癌的 10-15% [8]

非小細胞肺癌的分期乃根據肺癌屬局部性還是已由肺部擴散至淋巴結或其他器官而定。

第 0 期

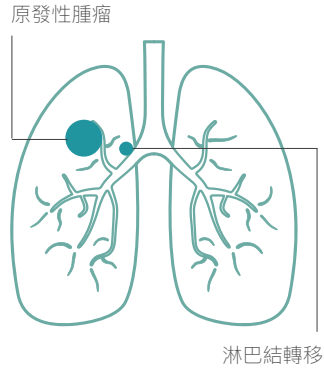
癌細胞仍然在肺或支氣管內膜中，但這些細胞尚未發展成真正的腫瘤 [9]。

第 I 期



癌腫只在肺內，尚未擴散至任何淋巴結 [10]。

第 II 期



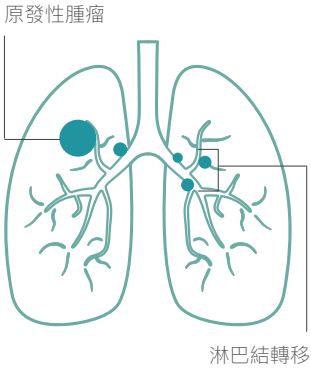
癌腫在肺內，並已擴散至附近的肺部淋巴結 [10]。

診斷

現在有許多檢查方法可用於肺癌診斷，例如胸部 X 光檢查、痰液檢查、電腦掃描、磁力共振掃描、活組織檢查、支氣管鏡檢查、基因突變測試等。

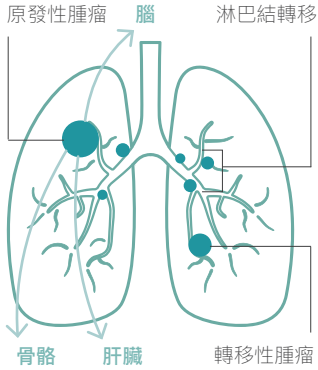
治療

治療選擇會根據患者的癌症種類和分期、癌腫位置、分子特徵和患者的整體健康而決定。肺癌的最常用治療方法包括手術、化療、放射治療和標靶治療。



第 III 期

癌腫已擴散至胸腔中央部分（縱膈）的淋巴結，但尚未擴散至胸腔以外的其他器官 [10]。



第 IV 期

這是肺癌的末期，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 [10]。

肺癌的基因突變

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 [11] ***。***

關於 EGFR 基因突變

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 [12]。 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% [13]。出現突變的 EGFR 會令腫瘤生長速度不受控的增加，加速癌症惡化 [14]。

基因突變測試可以幫助瞭解癌症中出現哪種基因轉變。

對於晚期非小細胞肺癌患者而言，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**。 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。

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 [14]，而 EGFR 基因突變陰性腫瘤患者就較能從化療中獲益 [14]。

關於 EGFR T790M 基因突變

對於有 EGFR 基因突變的非小細胞肺癌，標靶治療通常在一段時間內有良好療效，但最終會失去效用。這表示**癌症對治療產生抗藥性**[15]。

引致**對一線 EGFR TKI 標靶治療產生抗藥性**的機制有多種，例如 EGFR T790M 基因突變、HER2 基因擴增、MET基因擴增以及小細胞的組織學轉化。其中以 EGFR T790M 基因突變最爲常見[15]。 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 EGFR T790M 基因突變有關[15]。

關於 EGFR 基因突變測試

要知道患者是否有 EGFR 基因突變或 EGFR T790M 基因突變，唯一的方法是進行測試。

這能幫助識別基因突變，並有助於治療選擇的決定。

欲瞭解更多詳情，請向醫生查詢及瀏覽 **www.livingwithlungcancer.asia**

關於肺癌的 ALK 基因突變

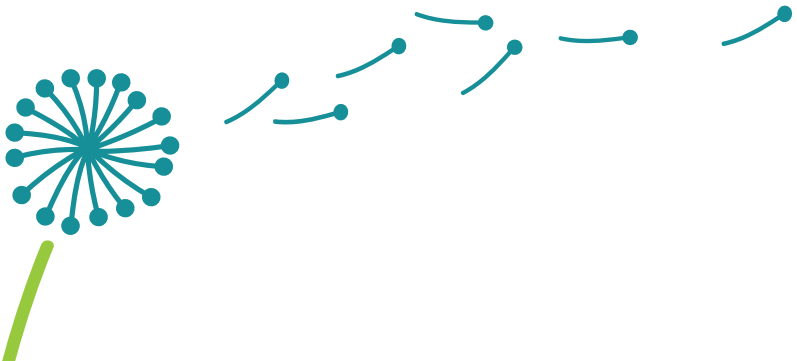
約有 5% 的非小細胞肺癌會出現間變性**淋巴瘤激酶 (ALK) 基因突變**[7]。這種基因突變在非吸煙或輕量吸煙的非小細胞肺癌腺癌患者中較常見[7]。ALK 基因突變會產生異常的ALK 蛋白質，引致細胞生長和擴散[7]。ALK 基因突變測試有助檢查腫瘤中是否存在該基因突變[7]，現在已有針對 ALK 基因突變的標靶治療藥物作一線及二線治療[7]。

A Breath of Hope

For people living with lung cancer, the road to remission can be long and difficult.

For them, each breath is a treasure, a richness, and a celebration of life. Nowadays, medical advances are allowing lung cancer patients to live longer and spend more time with their family and loved ones. Let us join hands to lend our support and send a Breath of Hope to them. Please visit our website for more information :

www.livingwithlungcancer.asia



Key Statistics for Lung Cancer

Lung cancer is one of the most common cancers and leading cause of cancer death globally and in Hong Kong.[1,2]

1.8M

new cases were diagnosed worldwide in 2012[1]

CHINA[1]
600,000+

TAIWAN[3]
10,000+

HONG KONG[4]
4,500+

1.6 Million Deaths

each year worldwide caused by lung cancer[5]

In Hong Kong, it accounts for 28% of all cancer deaths, with around 3,900 deaths in 2014.[6]

Most lung cancers **do not cause any symptoms** until the disease has already reached an advanced stage.[7]

Even when symptoms do appear, such as **cough, chest pain & shortness of breath** they can be mistaken for other health problems.[7]

Types of Lung Cancer

Most lung cancers are divided into two main types:

NSCLC

Non-Small Cell Lung Cancer:
about 80-85% of lung cancer [7]

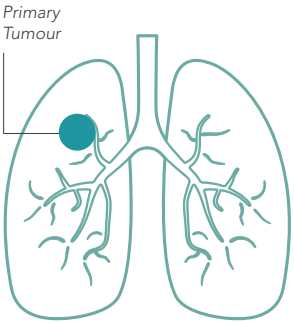
SCLC

Small Cell Lung Cancer:
about 10-15% of lung cancer [8]

Staging NSCLC is based on whether the cancer is local or has spread from the lungs to the lymph nodes or other organs.

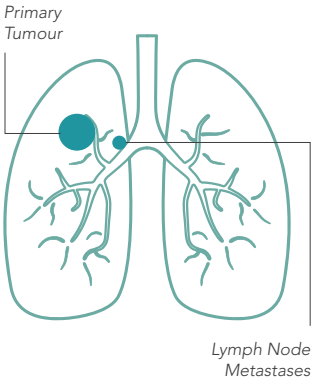
Stage 0

Cancer cells are within the lining of the lung but have not formed an actual tumour. [9]



Stage I

The cancer is only in the lungs and has not spread to any lymph nodes. [10]



Stage II

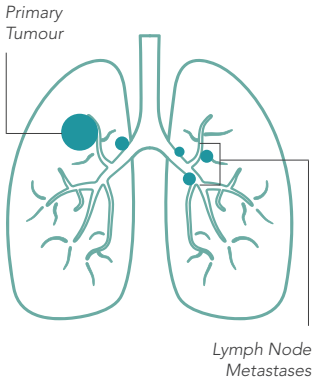
The cancer is in the lung and nearby lymph nodes. [10]

Diagnoses

There are several tests that can be done to diagnose lung cancer, such as chest X-ray, sputum cytology, CT scan, MRI scan, biopsies, bronchoscopy and mutation tests.

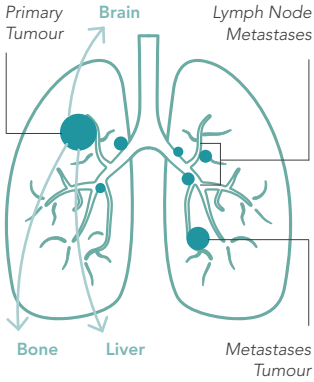
Treatment

Treatment options are based on a patient's cancer type and stage, location, molecular characteristics, and the patient's overall health. The most common treatments for lung cancer are surgery, chemotherapy, radiation therapy, and targeted therapy.



Stage III

Cancer is in the lung and in the lymph nodes in the middle of the chest, but does not appear to have spread to other organs outside the chest. [10]



Stage IV

This is the most advanced stage of lung cancer 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. [10]

Lung Cancer Mutations

Medical studies have discovered that the growth of some lung cancers depends on the presence of certain genetic mutations in the cancer.[11]

About EGFR Mutation

Epidermal growth factor receptor (EGFR) mutation is the most common type of gene mutation in lung cancer,[12] presenting in the tumours of 30-40% of Asian and 10-20% of non-Asian patients with advanced NSCLC.[13]

Mutated EGFRs show an increased rate of uncontrolled tumour growth, which can speed up the cancer's progression.[14]

A mutation test can help find out what kind of gene changes occur in the cancer.

For people with advanced NSCLC, it is important to know the EGFR mutation status because it can help doctors **select the most appropriate treatment** for a patient. In advanced NSCLC, there are two main treatment options: chemotherapy and targeted therapy.

Studies have shown that patients with EGFR mutation-positive tumours gain more benefit from targeted therapies than with standard chemotherapy,[14] while patients with EGFR mutation-negative tumours gain more benefit from chemotherapy than with targeted therapies.[14]

About EGFR T790M Mutation

Targeted therapies often work well for a period of time for advanced NSCLC with EGFR mutation, but then stop working. This means the **cancer develops resistance to the treatment**.[15]

Common mechanisms of resistance to first-line EGFR TKI therapy include EGFR T790M mutation, human epidermal growth factor receptor 2 (HER2) amplification, MET proto-oncogene, receptor tyrosine kinase (MET) amplification and small cell histologic transformation. EGFR T790M mutation is the most common mechanism among all of them.[15]
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.[15]

About EGFR Mutation Testing

The only way to know if a patient has EGFR mutation or T790M mutation is to get tested.

This helps identify the mutation and guides treatment options.

Consult doctors and visit **www.livingwithlungcancer.asia** for more information.

About ALK Mutation in Lung Cancer

About 5% of NSCLCs have a rearrangement in a gene called **Anaplastic Lymphoma Kinase (ALK)**.[7] This change is most often seen in non-smokers (or light smokers) who have the adenocarcinoma subtype of NSCLC.[7] The ALK gene rearrangement produces an abnormal ALK protein that causes the cells to grow and spread.[7] ALK mutation test can help find out if the tumour has developed the mutation.[7] Nowadays, drugs that target the ALK mutation are available for first- and second-line treatment.[7]

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A BREATH OF HOPE
LIVING WITH LUNG CANCER

與肺癌共存
呼出希望

Let us give A Breath of Hope
to people living with lung cancer

為肺癌患者送上 – 呼吸希望。 對於他們，每次呼吸都是生存的希望。 隨著醫學進步，肺癌患者可以與家人摯愛共享更多珍貴時光。讓我們向他們表達支持，送上祝福。

For people living with lung cancer, each breath is a celebration of life. Medical advances are allowing them to live longer and spend more time with their family and loved ones. Let us lend our support and send good wishes to all of those touched by lung cancer.

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