什么是肺癌?

肺是在我们胸腔内的两大片海绵状器官，它主管我们的呼吸功能。我们通过鼻子吸进氧气，经过气管进入肺泡。肺泡是进行气体交换的场所。人体吸入氧气，排出二氧化碳。

当肺部(尤其是气管内壁)的异常细胞增殖失控时，肺癌就产生了。随着癌细胞的增长，癌细胞会干扰肺的正常功能。它们也会从原发的癌变部位扩散至围绕着气管的淋巴腺体、对侧的肺、骨、脑、肝以及身体的其他部位。

肺癌主要有两种：小细胞肺癌和非小细胞肺癌。小细胞肺癌占大约所有肺癌病例的10-15%。这是一种具有侵袭性的癌症，生长迅速，在比较早的阶段就扩散至其它的部位。这类肺癌与吸烟密切相关。同小细胞肺癌相比，非小细胞肺癌的侵袭性较低，生长和扩散也比较缓慢，但发病更普遍。非小细胞肺癌包括鳞状细胞癌、大细胞癌和腺癌。

你有发病因素吗?

- **吸烟**是肺癌的首要发病因素。吸烟量越大，吸烟时间越长，患肺癌的风险就越高。
- **二手烟(被动吸烟)**是非吸烟者患肺癌的主要发病因素。其吸入量并没有安全的范围，任何剂量的二手烟摄入都会造成影响。
- **年龄**：肺癌发病率与年龄密切相关，常见于较年长的人士。
- **接触致癌物质例**如石棉、煤气、铬酸盐、镍、砷、氯乙烯、芥子气和氡气，会增加患上肺癌的风险。
- **个人或家庭肺癌病历**：肺癌幸存者(尤其是吸烟者)可能会再次患上肺癌。如果你的父母、兄弟、姐妹或子女有肺癌病史，你患上肺癌的可能性就比别人高。

如何预防肺癌?

- **减少或不抽烟**：这是最有效的降低患肺癌风险的方法。
- **避免二手烟**。
- **筛检**：如果早期发现，肺癌病人的存活率比较乐观。低剂量电脑断层扫描可用来进行高危人群的肺癌筛检。但是，这种方法并不完善，其结果可能存在较高的假阳性率(即电脑断层扫描结果异常，但进一步的检查证实为良性病变)。

有什么征兆和症状?

早期的肺癌通常没有明显的症状。但常见的肺癌症状包括:

- 感觉虚弱，疲倦及不明原因的体重减轻
- 久咳不愈且日益严重
- 痰中带血
- 呼吸急促，气喘或声音变嘶哑
- 肺部反复感染及发热
- 持续胸痛
- 食欲不振
- 肺癌转移的症状：肝肿大，面色苍白，淋巴腺体肿大。

如何诊断肺癌?

可利用以下的一种或多种检验来诊断:

- **病史及身体检查**。
- **胸部X光**。
- **痰细胞学**：在显微镜下检验痰液中是否存在癌细胞。由于此检验敏感度不高，当痰细胞学检验结果为阴性、但高度怀疑肺癌时，可能需要进行其它进一步的检验。
- **支气管内窥镜**：将前端有光源的光纤维管经鼻孔插入气管，取少量可疑的肺部组织作显微镜检查。检查前可给予轻度镇静剂和局部麻醉剂以减轻不适。
- **影像分析**：利用电脑断层扫描，磁共振成像和正电子发射断层扫描来判断病情的严重性。
- **经胸廓的针刺活组织检查**：在电脑断层扫描的协助下，医生将针管插入胸部，抽取可疑的肺部肿块细胞以进行活组织检查。
- **纵隔镜检查或视频辅助胸腔镜手术**：属于侵入式的检查，病人需要住院及全身麻醉。当以前的检验不能提供结论性的结果时，有可能需要进行这样的检查。纵隔镜检查与支气管内窥镜检查很相似，不同的是光纤维管经颈部的小切口插入，以检查胸腔中部的淋巴结是否受到癌症的影响。视频辅助胸腔镜手术中，微型摄像机和手术器材由皮肤上二到三个小切口插入胸腔，并提取可疑的组织以进行病理检验。

肺癌的严重性是通过疾病分期来评估，并提示癌症扩散的程度:

分期	扩散程度	5年存活率(男性)*	5年存活率(女性)*
I	癌症局限在肺部，邻近组织均正常。	54%	69%
II	肺癌扩散至邻近淋巴结。	33%	45%
III	癌症扩散至胸壁、横膈膜、邻近器官、纵隔膜内的淋巴结或另一侧的胸或颈部。	11%	20%
IV	癌症广泛扩散到身体其他部位。	3%	5%

*来源：新加坡癌症注册局年度注册报告，2010-2014年新加坡癌症发病率趋势。

如何治疗肺癌?

- **非小细胞肺癌**
  非小细胞肺癌治疗通常可采用外科手术、放射治疗、化学治疗及靶向治疗。由于非小细胞肺癌的生长和扩散较慢，若早期发现，可通过外科手术或放射治疗取得较好的治疗效果。根据非小细胞肺癌的分期，治疗包括:

分期	治疗
I & II	若病患身体状况允许，进行外科手术切除癌症是最好的治疗。手术后，有时需要进行化学治疗，以减少癌症复发的风险。
III	通常的治疗方法是放射治疗，有时结合化学治疗。
IV	治疗只要属于辅助性，如减轻疼痛、治疗失血和静脉阻塞。可能需要化学治疗或靶向治疗。

- **小细胞肺癌**
  由于小细胞肺癌是一种侵袭性的癌症，在比较早的阶段就扩散至其它的部位，通常的治疗是采用化学治疗。如果癌症仍局限于一侧的肺及淋巴结，放射治疗可结合化学治疗以有效地治疗和去除癌症细胞。小细胞肺癌不建议采用外科手术的方法。

肺癌支持小组

肺癌支持小组是为支持肺癌患者、幸存者及高危人群所设立的。作为成员见面与互动的平台，它为成员提供机会分享患病经历和感受并互相支持。

小组成员每月第三个星期四3:30至5:30在位于碧山Junction 8的新加坡防癌协会多元服务中心活动。

你知道吗?

1 根据最新的新加坡癌症注册局年度注册报告(2015)，肺癌是男性第二常见的癌症，在女性癌症病例中则排名第三。

2 肺癌是当今生存率最低的癌症之一。

3 最重要的预防肺癌的方式是不抽烟及避免二手烟。

Singapore Cancer Society Screening & Vaccination Services
新加坡防癌协会癌症筛查和疫苗接种服务

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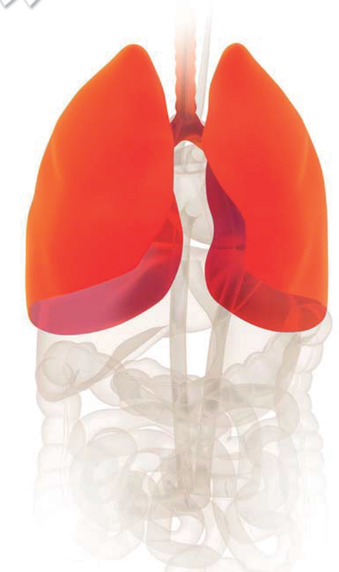
LUNG CANCER | 肺癌



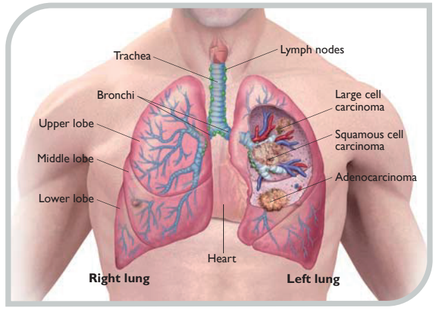
What you need to know about **preventing**, **detecting** and **treating** Lung Cancer

SINGAPORE CANCER SOCIETY
新加坡防癌协会

What is Lung Cancer?

The lungs are two large sponge-like organs in our chest that enable us to breathe. We take in oxygen-rich air through our nose, via the windpipe (trachea) into air sacs of the lungs where gaseous exchange takes place. Oxygen is taken into the body and carbon dioxide escapes into the air.

Lung cancer is the uncontrolled growth of abnormal cells which come from lungs, usually from the cells that line the air passages. As the cancer cells grow, they can interfere with the normal functioning of the lung. They can also spread from the original part of the lung to lymph glands around the airway, the opposite lung, bones, brain, liver as well as other parts of the body.



There are two major types of lung cancer: small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). SCLC makes up about 10-15% of all lung cancer cases. It is a kind of aggressive cancer, which grows quickly and spreads early to other parts of the body. This type of lung cancer is strongly associated with cigarette smoking. NSCLC is not as aggressive as SCLC, but more common. It tends to grow and spread less quickly than SCLC. NSCLC includes squamous cell carcinoma, large cell carcinoma and adenocarcinoma.

Are You at Risk?

- **Cigarette Smoking** is the number one risk factor of lung cancer. The risk of having lung cancer increases with the number of cigarettes smoked each day and the duration of smoking.
- **Second-Hand Smoke (Passive Smoke)** is a main risk factor for lung cancer among non-smokers. No amount of exposure to second-hand smoke is safe.

- **Age**: Lung cancer incidence is strongly related to age, with higher incidence rates amongst older men and women.
- **Exposure To Cancer-Causing Chemicals** increases the risk of lung cancer, e.g. asbestos, coal gas, chromates, nickel, arsenic, vinyl chloride, mustard gas and radon.

- **Personal Or Family History Of Lung Cancer**: lung cancer survivor might have a risk to develop another lung cancer, especially for smokers. The risk of lung cancer may be higher if your parents, brothers or sisters, or children have had lung cancer.

How to Prevent?

- **Reduce or avoid tobacco smoking**: This is the most effective method to minimize the risk of having lung cancer.
- **Avoid second-hand smoke**
- **Screening**: When lung cancer is diagnosed in the early stages, patients have a much higher chance of survival. Low-dose CT scans may be used for the screening for lung cancers in individuals at higher risk. However, this method is not perfect, and one needs to be prepared for false positive results (abnormal CT scan results which eventually are proven to be benign after further testing).

What are the Signs and Symptoms?

Often, there may be no symptoms of lung cancer at an early stage. However, common symptoms of lung cancer include:

- General weakness, tiredness and unexplained weight loss
- Persistent cough that worsens over time
- Blood in sputum (Haemoptysis)
- Shortness of breath, wheezing, or hoarseness
- Recurring chest infection and fever
- Constant chest pain
- Loss of appetite
- Symptoms from metastases of lung cancer – swollen liver, paleness, swelling of lymph nodes

How is Lung Cancer Diagnosed?

The diagnosis is made using one or more of these tests:

- **History and physical examination**
- **Chest X-ray**
- **Sputum cytology**: Examination of the sputum under the microscope may reveal cancer cells. As it is not a sensitive test, other further tests might still be required if it is negative and there is strong suspicion of lung cancer.
- **Bronchoscopy**: A flexible fibre-optic tube with a light-source is inserted through the nose into the airways. Suspicious lumps can be biopsied – a small piece of the lump is taken for microscopic examination. A light sedative and local anaesthetic spray may be administered to the back of the throat before the procedure.

- **Imaging studies:** CT (Computerised Tomography), MRI (Magnetic Resonance Imaging) and PET (Positron Emission Tomography) scans are performed to determine the extent of the cancer.
- **Transthoracic needle biopsy:** Under CT scan guidance, a needle is inserted into the chest to biopsy suspicious lumps in the lungs.
- **Mediastinoscopy or video-assisted thoracoscopic surgery:** Invasive procedures that require general anaesthesia and hospitalisation. Mediastinoscopy is similar to a bronchoscopy but the scope is inserted through an incision in the neck to enable the doctor to check if the lymph nodes in the centre of the chest are affected by cancer. During the video-assisted thoracoscopic surgery, a tiny video camera and surgical instrument are inserted into chest cavity through 2 to 3 small incisions in the skin. Tissue samples are taken from the chest cavity for further pathological test. These tests may be needed if earlier tests don't provide conclusive results.

The severity of the Lung Cancer is measured by the stage of the disease and indicates how far the cancer has spread:

Stage	Extent of Spread	5 Years ASOS (Males)*	5 Years ASOS (Females)*
I	Cancer is confined to the lungs and surrounded by normal tissue	54%	69%
II	Cancer has spread to nearby lymph nodes	33%	45%
III	Cancer has spread to the chest wall, diaphragm, nearby organs, blood vessels, lymph nodes in the mediastinum or the other side of the chest or neck	11%	20%
IV	Cancer has spread to more distant sites in the body	3%	5%

*ASOS – Age-Standardised Observed Survival rate

Source: Singapore Cancer Registry Annual Registry Report, Trends in Cancer Incidence in Singapore (2010-2014).

How is Lung Cancer Treated?

- **Non-Small Cell Lung Cancer (NSCLC)**
  Surgery, radiotherapy, chemotherapy and targeted therapy may be used to treat NSCLC. As NSCLC tends to grow and spread slowly, surgery or radiotherapy may offer a chance of cure if discovered early. Depending on the staging of NSCLC, the treatments are:

Stage	Treatment
I & II	If patient is fit, surgery is the treatment of choice to remove the cancer. Sometimes after surgery, further chemotherapy may be recommended to reduce the risk of cancer recurrence.
III	A combination of radiation with or without chemotherapy is the usual treatment.
IV	Treatment is mainly supportive i.e. relief of pain, treatment of blood loss and venous obstruction. Chemotherapy or targeted therapy may be needed.

- **Small Cell Lung Cancer (SCLC)**
  As SCLC is an aggressive cancer and tends to spread early to other organs, it is usually treated with chemotherapy. If the cancer is still localised with one lung and the lymph nodes of the lung, radiotherapy can be combined with chemotherapy to effectively treat the cancer and remove the cancer cells. Surgery is usually not recommended for SCLC.

Lung Cancer Support Group

The Lung Cancer Support Group is a patient support and advocacy for people living with lung cancer and those at risk for the disease. It provides a platform to meet, interact, receive support and offer an opportunity to share with others who have "been there" and experienced the array of emotions that come with a diagnosis of cancer.

Members meet every 3rd Thursday of the month from 3.30 pm – 5.30 pm at Bishan Junction 8.

Do You Know?

1 The Singapore Cancer Registry Annual Registry Report (2015) indicates that lung cancer is the 2nd most common cancer in males and 3rd in females.

2 Survival of lung cancer is amongst the lowest of all cancers.

3 The most important way to prevent lung cancer is to avoid tobacco smoke.

SINGAPORE CANCER SOCIETY