• Under normal circumstances, an immune response is triggered when cancer cells are identified by the immune system. However, certain types of cancer may interfere with this mechanism and suppress immune response, making one prone to the cancer attack. Recent medical advances have given birth to new drugs that can hinder this effect and boost the immune system to fight against cancer. Medications for immunotherapy are mostly injected intravenously into the body to boost the immune system and suppress cancer cells.

How can lung cancer be screened?

Instead of chest x-ray alone, low dose CT thorax is usually recommended, especially to chronic smokers aged over 40.

How can I prevent lung cancer?

The advice may seem too easy that makes it too good to be true: quit smoking. If you are not a smoker, try to avoid secondhand smoke.

If you are required to work at places such as construction sites or mines, you should comply with the related occupational safety and health rules, e.g. use protective equipment to minimise exposure to carcinogenic substances in workplaces.
Lung cancer is divided into 2 major categories: small cell lung cancer and non-small cell lung cancer. The word “small” or “non-small” refers to how cancer cells look like under the microscope. 3 out of every 4 cases belong to the non-small cell category.

In Hong Kong, the incidence rate of lung cancer is second and third in men and women respectively. It accounted for 15.7% of new cancer cases in 2017, most of which were diagnosed at above 65 years of age.

Lung cancer was also the first leading cause of cancer deaths in Hong Kong in 2017, accounting for 27.1% of all cancer deaths.

**What are the risk factors of lung cancer?**
- Smoking, both active and passive
- Exposure to detrimental substances, e.g. asbestos, nickel and chromium
- Exposure to radon, i.e. a radioactive substance

**What are the common symptoms of lung cancer?**

The severity of the following symptoms varies from person to person. As these may suggest conditions other than lung cancer, you are advised to consult a doctor for further assessment.

- Persistent and unexplained cough (for at least 4 weeks), change in cough pattern or presence of blood in sputum
- Hoarseness and shortness of breath
- Recurrent chest infection
- Weight loss, lack of appetite and fatigue

**How is lung cancer diagnosed?**

Doctor may perform physical examination for any sign that suggests lung cancer, e.g. decrease in breath sound, unusual noise from the lungs and dull ache in the chest when tapped.

Sputum is also examined for any malignant cells. Chest X-ray and/or CT scan images may also be taken, the latter to guide biopsy. Bronchoscopy may also be performed to detect abnormal growth inside the lung airways and extract tissues for pathological examination.

MRI brain and full-body PET scan are useful to detect metastasis.

**What treatments are available for lung cancer patients?**

Each of the following treatments may be provided alone or in combination with others, depending on one’s conditions:
- Non-small cell lung tumours can be surgically removed with a margin of surrounding lung, e.g. a lobe, or even the whole lung if necessary.
- Radiotherapy is recommended if the lymph nodes are so involved that makes eradication by surgery impossible. Combined preoperative chemoradiotherapy may be performed to render an originally inoperable tumour operable.
- Chemotherapy is an effective treatment of lung cancer, and is usually given with radiotherapy in the initial stage to control localised tumour. Since the advent of platinum, which can be administered in combination with drugs such as Etoposide, Paclitaxel, Gemcitabine, Vinorelbine, Pemetrexed, etc., the response rate to chemotherapy has improved. Since chemotherapeutic drugs cannot reach the brain during chemotherapy, in case of small cell lung cancer, radiotherapy may be required to treat the brain prophylactically after chemotherapy to prevent recurrence.
- Targeted therapy uses drugs to interfere with specific molecules in late-stage cancer and inhibit its growth and spread. While chemotherapy makes no distinction between normal and cancer cells in its attack, targeted therapy acts on specific molecules to block cancer proliferation and is usually indicated for advanced disease.