氢氣與甲醛和二手煙等空氣污染物不同之處,在 於它並不會刺激你的眼睛、發出異味、引致流鼻 水或呼吸不適。雖然氢氣較難察覺,但我們不應 忽視其存在,因為長期接觸高水平的氢氣,可引 致肺癌。

#### 氢氣是什麼?為何會對人有害?

氢氣屬放射性氣體,無色、無味、無嗅。當存在於大部分泥土及岩石(尤其是花崗岩)的鐳放射分解時,便會產生氢氣。

氢氣再經衰變,會形成一系列帶幅射的微粒。當氢氣 或微粒被吸入肺部,部分會積聚並繼續散發幅射,令 吸入人十患肺癌的機會較高。

煙草的煙霧混和高濃度的氢氣被人吸入後,會嚴重危害健康。而吸入同樣高濃度氢氣,吸煙者較非吸煙者 農肺癌的機會高出三倍。

#### 氢氣如何進入室內?

天然氡氣散發出自泥土、岩石或用花崗 混凝土等建築材料,從牆壁、地板、或 經由地面上的裂縫或空隙進入建築物的 地庫、地面層或較高層單位。通風不 足的建築物,氡氣會滯留及積聚。



#### 在甚麼情況下較易受到氢氣的潛在影響?

- 空氣不流通的地方如門窗、空調或機械通風系統的 新鮮空氣進口大部分時間都緊閉的樓字。
- 處所是位於地庫或地面層。
- 建築物所用材料是大多為花崗岩,例如石屋。

#### 如何減低對氢氣的接觸?

本港建築業使用的混凝土,多含花崗岩,所以不論樓 宇種類、層數高低、均可能有氡氣積聚的問題。不 過,以下的幾項措施均有助減低處所內的氡氣濃度及 其影響:

- 1. 靠自然通風的單位應該盡量多打開窗戶。
- 2. 空調或機械通風系統應該正確調控輸入新鮮空氣。
- 4. 牆壁應鋪上如牆紙等較不易 滲透的物料。
- 5. 吸煙人士應該立即停止吸煙。
- 6. 閒暇時間多到郊野公園等空 氣質素較佳的戶外地方。



#### 如何量度室內氡氣水平?

在決定量度氡氣水平前,應先考慮上述消減措施以減少接觸氡氣。若然決定量度你處所的氡氣水平,應找專業環境人士取樣、分析和解釋結果。

#### 如想得到更多資料,請聯絡:

室內空氣質素資訊中心

香港九龍塘達之路78號生產力大樓一樓

電話: 2 7 8 8 6 1 7 7 傳真: 2 7 8 8 6 1 8 1 電郵: enquiry@iaq.gov.hk 網址: http://www.iaq.gov.hk





環 境 保 護 署 ENVIRONMENTAL PROTECTION DEPARTMENT

# **氡氣**與你 **Radon** and You



Unlike other indoor air pollutants such as formaldehyde and environmental tobacco smoke, radon does not give you irritated eyes, unpleasant smell, runny noses, or respiratory discomfort. Despite it is less noticeable, we should not overlook its existence as it could lead to lung cancer at elevated level after prolonged exposure.

#### What is radon and why is it dangerous?

Radon is a radioactive gas that has no taste, smell nor colour. It is formed when radium found in most soils and rocks, particularly granite, disintegrates radioactively.

As radon gas further decays, a series of tiny radioactive particles are formed. When either the gas or these particles are breathed into the lung, some is deposited and continues to emit radiation. Affected people will have a higher risk of lung cancer.

Exposure to a combination of tobacco smoke and high radon levels poses a serious health risk. A cigarette smoker runs three times more risk of getting lung cancer than non-smokers exposed to high radon levels.

#### How does radon get indoors?

Natural radon emitted from soil, rock or from building materials such as concrete made with granite may enter the basement, ground or upper floors of buildings from the walls and floors, or through cracks or openings in the ground. If a building is not well ventilated, radon gas will become trapped and accumulate.

### What are the high risk areas for a potential radon problem?

- Poorly ventilated areas, e.g. rooms with windows and doors or the fresh air intake of the air conditioning or mechanical ventilation systems kept closed;
- the premises is in the basement or on the ground floor; or
- 3. the building is extensively constructed from granite, such as a stone house.

## What are the tips to reduce radon exposure?

Granite is very widely used in concrete for building construction in Hong Kong so radon may be accumulated on any floor of any building. Nevertheless, you can take the following measures to reduce indoor radon concentration and its impacts:-

- Open your windows more often if your premises is naturally ventilated.
- 2. Set the fresh air intake and exhaust correctly if you have air conditioners or ventilation systems.
- Seal any crack on the ground or walls if your accommodation is in a basement or on the ground floor.

- 4. Apply less permeable wall covering such as wall paper.
- 5. Quit smoking immediately if you are a smoker.
- Spend more of your leisure time outdoors in areas with good air quality, such as country parks.

#### How can I measure indoor radon level?

Before deciding if you need any measurement, you should explore the abatement measures mentioned above to reduce the exposure. In case you really want to carry out measurement to determine the level of radon in your premises, you should seek help from environmental professionals to carry out the sampling, analysis, and interpretation of results.

#### For more information, please contact:

### Indoor Air Quality Information Centre 1/F, HKPC Building, 78 Tat Chee Avenue

Kowloon Tong, Hong Kong

Telephone: 2788 6177 Facsimile: 2788 6181

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