

This is an official **CDC HEALTH UPDATE**

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Update: Information About Polonium-210 in Recent Events in the United Kingdom

Recent events in the United Kingdom involving radioactive material Polonium-210 (Po-210) has caused concerns for possible public health risks. The U.K. Health Protection Agency has information about Po-210 and this event on their website: (www.hpa.org.uk/). More information on this topic can be found on the U.K. National Health Service website (www.nhsdirect.nhs.uk/articles/article.aspx?articleId=2086).

The Centers for Disease Control and Prevention (CDC) has developed clinician guidance for patients who believe they may have been affected by Po-210 while traveling to or staying in the U.K. (<http://www.bt.cdc.gov/radiation/isotopes/polonium/clinicians.asp>).

In addition, CDC provides the following basic questions and responses about this topic.

What is Polonium 210?

Polonium-210 (Po-210) is a radioactive material that occurs in nature at very low levels. Although Po-210 can be made in university or government nuclear reactors, it requires expertise to do so. The exposures to this radioactive material in London are a very rare event. Po-210 emits alpha particles, which carry high amounts of energy that can damage or destroy genetic material in cells inside the body. Po-210 gives off 5,000 times more alpha particles than does the same amount of radium. Po-210 is used in some devices to get rid of static electricity in processes such as rolling paper, manufacturing sheet plastics, and spinning synthetic fibers.

Is Po-210 harmful to humans?

Po-210 is a radiation hazard only if it is taken into the body through breathing or eating or by entering a wound. This internal contamination can cause radiation exposure (irradiation) of internal organs, which can result in serious medical symptoms or death. Po-210 is not a hazard to the outside of the body—neither polonium nor its radiation will go through unbroken skin or membranes. Careful washing will remove most external traces of Po-210. For more information about contamination and irradiation, see CDC's fact sheet "Radiological Contamination and Radiation Exposure" (www.bt.cdc.gov/radiation/contamination.asp).

Are other people at risk if they come into close contact with a contaminated person?

People will not be exposed to radiation just by being near a person who is internally contaminated with Po-210. Health care workers who are providing care for a contaminated patient will not be exposed to Po-210 unless they breathe in, eat, or drink contaminated bodily fluids. Normal hygiene practices in hospitals for microbial contamination will protect workers from radiological contamination. For more information on radiation protection

for health care workers, see CDC's Radiological Terrorism: Tool Kit for Emergency Services Clinicians (www.bt.cdc.gov/radiation/toolkit.asp).

What should you do if you were a passenger on one of the British Airways flights or a guest in a London hotel that is being investigated?

As of December 4, 2006, the U.K. Health Protection Agency has stated that there have been no issues of public health concern to British Airways passengers. Passengers who traveled on any of the investigated planes during the last month were not at risk to Po-210 contamination (see www.britishairways.com/travel/home/public/en_gb).

In addition, the U.K. Health Protection Agency reported that the Ashdown Park Hotel and Best Western Hotel, Shaftesbury Avenue, in London have been checked. No public health concern has been found. A potentially affected area in the Emirates Stadium has been checked, and there is no risk to public health.

If you were at any of these locations and you do not have physical symptoms, you should not need routine medical screening.

However, if you were at any of these locations and you have particular concerns about your health or symptoms such as nausea, vomiting, diarrhea, hair loss, or unusual bleeding (see CDC fact sheet at www.bt.cdc.gov/radiation/ars.asp), see your health care provider, who may be able to advise whether further evaluation or testing is needed.

For more information, visit the U.K. Health Protection Agency site at www.hpa.org.uk/ and send an e-mail requesting information to overseasadvice@hpa.org.uk.

Should you be concerned about possible polonium exposure if you are planning to travel to London now?

There is no evidence to suggest that you are at any risk for radiation exposure or contamination if you are traveling to the United Kingdom.

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national and international organizations.

DEPARTMENT OF HEALTH AND HUMAN SERVICES