Occupational-Related Cancer Meeting Kit

Occupational-related Cancer Safety Talk

Cancer is one of the most devastating illnesses an individual can have. In the United States in 2017, it is estimated that an average of 1,500 people died per day due to cancer. Cancer is caused by carcinogens. Carcinogens are defined as any substance or agent that tends to produce a cancer. Many carcinogens can be found in the workplace.

WORKPLACE CARCINOGENS

There are 179 agents classified by the International Agency for Research on Cancer (IARC) as known or probable human carcinogens. There are another 285 agents classified as possible human carcinogens. Depending on where you work and what job you perform you can be exposed to any number of carcinogens each day. **Some common carcinogens found in the workplace include:**

- Asbestos
- Lead
- Benzene
- Silica dust
- Formaldehyde
- Cadmium
- Arsenic
- Diesel exhaust
- Ionizing radiation

MORE ON CARCINOGENS

Along with everyday exposures to air pollution and sunlight, a number of substances have been tied to human cancers. That number includes substances in the workplace, as well as those in consumer products and the environment.

3% to 6% of all cancers worldwide are caused by exposures to carcinogens in the workplace.

It is important to remember that someone’s risk of developing cancer is affected by a combination of a number of factors that still are not fully understood. **Exposure in the workplace to cancer-causing agents can be one factor in developing cancer, but others include:**

- Personal characteristics such as age, sex, and race;
- Family history of cancer;
- Diet and personal habits like cigarette smoking and alcohol consumption;
- Certain medical conditions or past medical treatments, such as chemotherapy,

some immune system-suppressing drugs, or radiation treatment; *and*
- Nonoccupational exposures to cancer-causing agents such as air pollution and certain infectious agents, radon gas, and sunlight.

BEST PRACTICES TO PREVENTING WORKPLACE CANCERS/HIERARCHY OF CONTROLS

NIOSH holds that there is no safe exposure level for workplace carcinogens and that exposure should be reduced through elimination, substitution, or engineering controls.

The classic industrial hygiene **"hierarchy of controls"** is illustrated as an inverted pyramid of interventions to be used to control workplace hazards that include carcinogens, as well as acutely toxic, explosive, flammable, or reactive hazards.

To follow the hierarchy of controls, you would first begin with the elimination of a hazard, followed by substitution; engineering controls; administrative controls, including work practices; and, finally, personal protective equipment (PPE). PPE includes respirators and eye, face, hand, head, and hearing protection, as well as protective clothing.

NIOSH tests respirators and maintains a list of certified equipment. Various standards-setting organizations like ASTM International and the American National Standards Institute (ANSI) develop and update standards for other PPE.

Engineering controls can be highly effective in protecting workers and typically are independent of worker interaction. The initial costs of engineering controls can be higher than administrative controls or PPE. However, operating costs frequently are lower over the long term and, in some instances, can provide cost savings in other areas.

FINAL WORD

Occupational cancer is a serious concern for workers all around the world. It is critical to understand the hazards relating to carcinogens in your working environment as well as specifically to the tasks you do. Never fear stopping work to ensure yourself and your coworkers are safe from any hazard including carcinogens.