World Health Organization Says Diesel Exhaust Causes Cancer

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By Stacy Simon

A group of experts from the World Health Organization (WHO) has classified diesel engine exhaust as a carcinogen – a substance that causes cancer. The International Agency for Research on Cancer (IARC), which is part of the WHO, based its decision on what it calls "sufficient evidence" that exposure to diesel exhaust causes lung cancer and "limited evidence" that it increases the risk of bladder cancer. The new classification moves diesel fuel from the category of "probably carcinogenic" to "carcinogenic."

Studies have raised concerns over the years about the connection between diesel exhaust and cancer in workers with heavy exposure to exhaust from diesel engines. Men with the heaviest and most prolonged exposures, such as railroad workers, heavy equipment operators, miners, and truck drivers, have been found to have higher lung cancer death rates than unexposed workers. For example, in March 2012, the National Cancer Institute and National Institute for Occupational Safety and Health published results of a large study that showed an increased risk of death from lung cancer in underground miners exposed to diesel exhaust.

People can also be exposed to diesel exhaust in areas where they live and play, although typically at lower levels than in the workplace. Exposures are highest where diesel traffic is heaviest, such as along major highways and in cities. Large engines, including those used in many trucks, buses, trains, construction and farm equipment, generators, ships, and in some cars, run on diesel fuel.

The United States and other developed countries have responded to environmental and health concerns over diesel and gasoline exhaust by tightening emission standards. For example, changes in requirements for diesel engines have led to designs that burn fuel more efficiently, decrease the sulfur content, and reduce emissions. In less developed countries, however, regulations are less strict or don't exist.

Dr. Christopher Wild, Director, IARC, said "Today's conclusion sends a strong signal that public health action is warranted. This emphasis is needed globally, including among the more vulnerable populations in developing countries where new technology and protective measures may otherwise take many years to be adopted."

Reviewed by: Members of the ACS Medical Content Staff