

Online Service Offers Estimates on Number of Workers Exposed to Occupational Cancer

Approximate data provided on 20 carcinogens across 233 different industries



A program is provided that can appraise the number of workers who have been exposed to carcinogens at industrial sites.

The Occupational Safety and Health Research Institute (OSHRI, Director General Kim Eun-A), which is part of the Korea Occupational Safety and Health Agency, has developed the K-CAREX (“Korean CARcinogen Exposure”) program and offers it online, allowing users to estimate the scale of exposure to substances that can cause cancer in humans and evaluate the number of workers who have been so exposed.

* CAREX: A program developed by combining the carcinogenic factors registered by the International Agency for Research on Cancer (IARC) at the Finland Institute of Occupational Health (FIOH) with the number of workers exposed by industry in Finland.

› K-CAREX is designed to deduce the number of workers exposed to carcinogens in individual Korean industries.

- The analyses of OSHRI data measuring work environments, data on special health checks, and bigdata collected in surveys on workplace environment conditions were coupled with the assessments of experts to approximate the number of Korean workers who have been exposed to specific carcinogens.
- This program can estimate the number of workers exposed to any of the 20 listed human carcinogens across 233 different industries.
- The exposure basis considers the time for solid cancer to form after exposure to specific carcinogenic substances, and the estimates can be made by applying the number of workers in 2010 and the percentage of those workers who were exposed to carcinogens.

* Solid cancer: cancer that forms a solid tumor, or tissue mass

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- Importantly, the data on carcinogen exposure have been offered in visual form, making it easy to compare with each of 20 carcinogens on the list.

› For example, if the user selects a sub-category business, the program shows data on worker exposure to the

- By selecting (861) hospital among the sub-category businesses, the user can estimate that 12.0% (45,390 persons) were exposed to radiation, 3.53% (13,333 persons) were exposed to formaldehyde, and 2.5% (9,456 persons) were exposed to ethylene oxide.

› However, the data estimates do not include information on exposure levels, work processes or occupation types. Thus limitations must be considered when the program is used, and care is needed when interpreting the findings.

Occupational Safety and Health Research Institute Director General Kim Eun-A says, "Data estimates on the scale of carcinogen exposure by industry type can be used in various disease prevention projects. Going forward, will continue to do research and upgrade contents, and we remain committed to ensuring that all working people stay healthy."

