May 13, 2009

Formaldehyde Linked to Cancer Death

By RONI CARYN RABIN

Factory workers exposed to high levels of formaldehyde were more likely to die of cancers of the blood and lymphatic system than workers with low-level exposures, according to a study by researchers at the National Cancer Institute.

But the risk of dying of these cancers diminished over time after the exposure stopped, said Laura E. Beane Freeman, lead author of the study, which was published online Tuesday in The Journal of the National Cancer Institute.

The research looked at some 14,000 deaths among 25,619 workers, most of them white men, who began working before 1966 at 10 plants that produced formaldehyde and formaldehyde resin.

In the four ensuing decades, the researchers found, workers with the highest peak exposures to formaldehyde had a 37 percent greater risk of death from all blood and lymphatic cancers combined than those with lower peak exposures.

That is a lower risk of death from these cancers than was found in the same group of workers 10 years ago, when their risk was 50 percent higher than that of workers with lower exposure levels. The difference between the rates then and now indicates that this risk diminishes as time passes after exposure has ended.

"You usually don't develop cancer right away — there's a latency period," Dr. Freeman said. "Then, after you're not exposed to whatever it is — after people stop smoking for a while, for example — the risk returns down to that of the base-line population."

The exposure had ended by 1980 for a vast majority of the workers, who had either retired or moved to desk jobs. The researchers tracked cancer deaths among them through 2004.

Responding to the study, the Formaldehyde Council, a trade group, noted that it did not clearly establish a cause-and-effect relationship between formaldehyde and cancer. The council, which also pointed out that the government regulates the product, called for "a full scientific review of the health effects of formaldehyde" by the National Academy of Sciences.

Formaldehyde is widely used in manufacturing and as a preservative and disinfectant, although workplace exposures have decreased over time because of tighter regulations. The chemical has long been suspected of playing a role in the unusual number of leukemia deaths among pathologists and embalmers, who are periodically exposed to high levels.

Indeed, formaldehyde is also associated with nasopharyngeal cancer, a disease of the upper part of the throat, behind the nose, and has been classified as a human carcinogen by the International Agency for Research on Cancer.