

Increase in cancer in Sweden can be traced to Chernobyl

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The incidence of cancer in northern Sweden increased following the accident at the nuclear power plant in Chernobyl in 1986. This was the finding of a much-debated study from Linköping University in Sweden from 2004.

Was the increase in cancer caused by the radioactive fallout from Chernobyl or could it be explained by other circumstances? New research from Linköping University provides scientific support for the Chernobyl connection.

"This issue is important because the indicated increased risk may come to influence the prevailing exposure limits for the population. Enhanced knowledge of the risks entailed by radioactive radiation is key to work for radiation safety and makes it possible to prevent diseases," says Martin Tondel, a physician and researcher in environmental medicine who will soon be defending his doctoral dissertation Malignancies in Sweden after the Chernobyl Accident in 1986.

In two studies using different methods, Martin Tondel has shown a small but statistically significant increase in the incidence of cancer in northern Sweden, where the fallout of radioactive cesium 137 was at its most intense.

The cancer risk increased with rising fallout intensity: up to a 20-percent increase in the highest of six categories. This means that 3.8 percent of the cancer cases up to 1999 can be ascribed to the fallout. This increased



risk, in turn, is 26 times higher than the latest risk estimate for the survivors of the atom bombs in Hiroshima and Nagasaki, whose exposure was many times higher.

The increase in Tondel's studies came a remarkably short time after the disaster, since it is usually assumed that it takes decades for cancer to develop. The dissertation discusses the interpretation of the research findings from the perspective of the theory of science.

The conclusion is that there is scientific support for a connection between the radioactive fallout and the increase in the number of cancer cases.

Source: Linköping University

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