University of Waterloo STAT 231 – W. H. Cherry

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Fats raise risk of lung cancer in non-smokers

WASHINGTON (AP) – Add lung cancer to the growing list of diseases that seem to be influenced by diets high in fat.

A study by the U.S. National Cancer Institute of non-smoking women in Missouri found that those who eat diets with 15 per cent or more saturated fat are about six times more likely to develop lung cancer than those whose meals have 10 per cent or less of the fat.

"We found that as you increase the amount of saturated fat, you increase the amount of lung cancer," Michael Alavanja, an institute researcher, said Tuesday.

A report on the study is to be published Friday in the *Journal of the National Cancer Institute*.

Earlier studies have linked high-fat diets with cancers of the colon, prostate and breast.

High-fat diets are also thought to increase the risk of heart disease.

Alavanja said his research compared the diets of 429 non-smoking women who had lung cancer with the diets of 1,021 non-smoking women who did not have lung cancer. The women all lived in Missouri, were of about the same age and represented "a typical American female population."

The women filled out forms that asked about their dietary habits. They were divided into five groups based on the amount of fat and other nutrients they consumed. Alavanja said the study found that those with diets with the lowest amount of saturated fat and the highest amount of fruits, vegetables, beans and peas were the least likely to develop lung cancer.

At the other end of the scale, 20 per cent

of the women in the study with the highest consumption of fat and diets lowest in fruits, vegetables, beans and peas had about six times more lung cancer.

For a specific type of lung cancer, adenocarcinoma, there was an 11-fold difference between those on lowest-fat diets and those on the highest-fat diets. Adenocarcinoma is a form of lung cancer that is less often associated with smoking.

"The leading contributors of dietary saturated fat were hamburgers, cheeseburgers and meat loaf, followed by weekly consumption of cheeses and cheese spreads, hot dogs, ice cream and sausages," the study said.

Alayanja said that these foods, by themselves, cannot be considered good or bad, but that they appear to create a lung cancer risk when they represent 15 percent or more of the calories in the diet.

REFERENCE: Alavanja, M.C.R., Brown, C.C., Swanson, C. and R.C. Brownson: Saturated fat intake and lung cancer risk among nonsmoking women in Missouri. *J. Natl. Cancer Inst.* **85**(#23): 1906-1916 (1993). [DC Library call number: PER RC261.U47]

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