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**NEWS RELEASE**

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**Hunters Reminded to Limit Consumption of Elk Liver  
of Animals Harvested Near Phosphate Mines**

Eating elk meat from animals harvested close to phosphate mines in southeast Idaho is relatively safe; however, hunters and their families are reminded that elk liver, though a good source of vitamins and minerals, should be eaten in limited quantities due to high concentrations of selenium.

Responding to a request from the Greater Yellowstone Coalition, the Idaho Department of Health and Welfare's Bureau of Community and Environmental Health (BCEH) and the U. S. Agency for Toxic Substances and Disease Registry (ATSDR) has completed a health consultation which evaluated levels of selenium in elk muscle and elk liver and the possible health effects associated with eating elk. The elk were harvested by hunters in 1999 and 2000 in the southeast Idaho phosphate mining area in Caribou, Bingham, Bannock, and Bear Lake counties.

The levels of selenium in elk harvested 10 miles or more from phosphate mining areas were compared to those harvested closer to phosphate mining areas. Lab test results show that selenium concentrations were higher in the elk harvested closer to phosphate mining areas. The level of selenium found in elk muscle is not considered to be a cause of concern for those who regularly eat elk meat. However, the levels found in elk liver are elevated and the consumption of elk liver should be limited.

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The following table shows the amount of elk liver that can be safely consumed over a two week period according to a person's body weight. A four-ounce piece of elk liver is roughly the size of a deck of playing cards.

<b>Human body weight (lb.)</b>	22	44	66	88	110	132	154	176	198	220	242	264
<b>Safe Elk Liver Consumption Limit (oz.)</b>	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30

Selenium is a naturally occurring, solid substance, which is commonly found in rocks and soil and is typically higher in soils in western states. It is widely but unevenly distributed in the earth's crust. Selenium is an essential nutrient for humans and animals, but it can harm humans and animals when consistently eaten in amounts higher than those needed for good nutrition.

People who take selenium supplements or vitamins containing selenium should reduce their elk liver consumption even further. People with iodine or thyroid deficiencies, with Vitamin E-deficient diets, as well as insulin-dependent diabetics may be more sensitive to adverse health effects from excess selenium exposure and should also consider reducing their elk liver consumption even further than current recommendations.

The health effects of ingesting selenium depend on several factors; the most important are the amount consumed and the time period over which the selenium is eaten. With large doses of selenium eaten over short periods (days to weeks), heart and nerve problems can result. Lower doses over longer time frames (months to years) may also cause neurological dysfunction and respiratory disease, fatigue, loss of appetite, inflammation of the skin, inflammation of the stomach and intestines, liver degeneration, enlarged spleen and increased concentrations of selenium in hair and nails.

If you have questions or would like to receive a copy of the health consultation, please contact the Bureau of Community and Environmental Health at 1-208-334-4964.

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**(Editors: For more information, contact Tom Shanahan, Public Information Officer for Health and Welfare at 208-334-0668.)**