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M. D. Anderson research links diet, gardening and lung cancer risk

PHILADELPHIA - By simply eating four or more servings of green salad a week and working in the garden once or twice a week, smokers and nonsmokers alike may be able to substantially reduce the risk of developing lung cancer, say researchers at The University of Texas M. D. Anderson Cancer Center.

"This is the first risk prediction model to examine the effects of diet and physical activity on the possibility of developing lung cancer," says Michele R. Forman, Ph.D., lead author of the study and a professor in M. D. Anderson's Department of Epidemiology. Forman presented study results at the American Association for Cancer Research "Frontiers in Cancer Prevention Research" meeting Dec. 7 in Philadelphia, Pa. The data are from an ongoing M. D. Anderson case-control lung cancer study involving more than 3,800 participants. Separate epidemiologic risk assessment models were developed for current and former smokers as well as for those who have never smoked ("never smokers").

Forman's study looked at salad consumption and gardening because, "salad is a marker for the consumption of many vegetables and gardening is an activity in which smokers and nonsmokers can participate."

The baseline lung cancer prediction model had moderate risk protection. The study pairs M. D. Anderson lung cancer patients with cancer-free current, former and never smoker counterparts provided through a partnership with Kelsey-Seybold Clinic, a Houston-based HMO. By including diet and physical activity, the discriminatory power of the model was raised to 64 percent, 67 percent and 71 percent respectively for never, former and current smokers.

"This finding is exciting because not only is it applicable to everyone, but it also may have a positive impact on the 15 percent of non-smokers who develop lung cancer," says Forman. The other risk factors include exposure to secondhand smoke and dust, family history of cancer and the patient's history of respiratory disease and smoking.



Lung cancer is the leading cause of cancer death for men and women, with more than 213,000 estimated new cases diagnosed each year according to the American Cancer Society. Smoking tobacco accounts for more than eight of 10 lung cancer cases.

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