

Energy balance and cancer

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Last week I attended a "first of its kind" conference on energy balance held at the Fred Hutchinson Cancer Research Center in Seattle. This was a "first" because it brought together researchers from many disciplines, from nutrition and exercise to genetics and psychology, who study how their specialty relates to energy balance and cancer.

The term energy balance simply defined is the balance between the energy we take in, generally through food and drink, and the energy we use, generally through physical activity and metabolism. But other factors, such as genetics, weight, psychosocial influences, and the effects of certain foods on the body, also contribute to energy balance.

The study of energy balance and cancer is a focus of the National Cancer Institute, a sponsor of the conference, because of studies linking being overweight or obese to increases in certain types of cancer, such as postmenopausal breast cancer, colon cancer, renal cell carcinoma, and endometrial cancer. This is a national concern because nearly two-thirds of the U.S. population is considered overweight or obese.

Research at the conference covered a lot of ground. I listened to researchers who presented studies in rat models that showed calorie restriction and increases in physical activity resulted in leaner animals that lived longer and had fewer tumors. There were studies presented on specific cancers and obesity, mostly focused on postmenopausal breast cancer. Research in other cancers, such as colorectal and prostate, were discussed, but also realized was the need to increased funding to research cancers that may get less attention.

I learned there will be a lot of interesting research coming out in the next year or so in this area, and I will continue to keep you updated. Until then, I am sure many of you wonder what you can do, a subject that was discussed at this conference as well. Until more specific recommendations are made, try to stick to the government's suggestions to exercise at least 150 minutes a week, to maintain a BMI between 18.5 and 24.9, and to eat a healthy diet that emphasizes fruits, vegetables, whole grains, low-fat dairy, and lean meats. For more recommendations, check out the [U.S. Department of Agriculture's MyPyramid website](#) and the [U.S. Department of Health and Human Services' guidelines for exercise](#).