



The healthy Corner aging

Part of Parke County's Healthy Aging and Cancer Prevention Initiative

To Fight Cancer, Stimulate Your Brain

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*A recent study shows the right kind of stress schools your brain
to teach your fat cells how to say "no" to cancer*

Conventional wisdom says avoiding stress is the best thing for us. Now a recent study challenges that wisdom. Laboratory mice living in a mildly stressful environment experienced an activation of their brain leading to important health benefits. The work suggests that the brain sees mild stress – such as engaging in physical, mental, and social activities – as a beneficial stimulant. As we interact more with our surroundings, we reap benefits. Of particular note in the mouse study, the brain stimulation induced by mild stress led to reduced cancer growth.

How does it work? The investigators showed that the cancer protection in mice was achieved in a remarkable, unexpected way. The stimulated brain releases a substance called BDNF (brain-derived neurotrophic factor). This in turn instructs the fat cells in the body to shut off production of a substance called leptin. Shutting down circulating levels of leptin suppressed cancer growth in the mice. Stimulating the brain made fat cells say "no" to cancer.

It's tempting to speculate just what an animal study like this one might mean for us humans. We believe the take home message is this: It's great to stimulate! Your body reacts to mild stress by increasing your resiliency – revving up your ability to successfully meet the next challenge that comes your way. So do yourself a favor. Construct a stimulating lifestyle, one rich in moderately challenging physical activity, mind-stretching reading, and stimulating conversation. Tell your friends that you are stimulating your way to exceptional health. Tell them your new, stimulating way of life might even be turning your fat cells into your own built-in cancer-suppressing device. Now that could spark a stimulating conversation, couldn't it?

Source: Cao et al, Environmental and genetic activation of a brain-adipocyte BDNF/leptin axis causes cancer remission and inhibition. Cell 2010; volume 142, pp. 52-64.

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