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## **Myth-perceptions about Cancer**

### **#4 Stress Causes Cancer**

The belief that stress causes cancer developed around the time that Carl and Stephanie Simonton published their book, *Getting Well Again*, in the mid-70's. They proposed that imagery could help heal cancer. They lead groups that taught imagery techniques emphasizing an aggressive image of your immune system as "sharks attacking cancer cells." Soon groups all over the country developed, including one I helped to found (The Cancer Support and Education Center) with Maggie Creighton.

Cancer research centers were examining the body's immune response to cancer. They discovered that lymphocytes could either recognize and attack cancer cells or be fooled into ignoring them. Angiogenesis (blood vessel development) and growth factors (substances which cause the cells to grow) were largely unknown. The effect of genetics and oncogenes was likewise unrecognized.

At the same time, research on the effects of the mind on the immune system began to show that stress could influence portions of the immune system, particularly lymphocytes. This field of study, psychoneuroimmunology, gained credibility as more research was done showing the effect of thoughts and emotions on the immune system. Most of the research, however, was either in the test-tube or observational. Many conclusions were drawn from this research that sounded plausible but had to be tested in clinical studies.

This combination of these forces lead to the following beliefs:

- Cancer is caused by a defect in the immune system.
- Stress causes a decrease in the immune system.
- Therefore, stress causes cancer.
- Hence, if you avoid or reduce stress you can prevent cancer.
- Or, if you are exposed to more stress cancer will develop or recur.

In the late 1980's and 1990's large studies were done to examine these hypotheses. The research was careful and scientifically valid. The studies found that:

- Cancer is caused by damage at multiple places in the DNA that is not repaired properly. The immune system is significantly involved with cancer development

in only a few diseases: primarily lymphomas, melanoma, and kidney cancer. Growth factors and cell cycle control are the main factors that determine whether cancer develops or progresses.

- Though stress does cause a decrease in certain aspects of the immune system, stress does not precede cancer any more than it precedes other diseases. (Heart disease is related to stress.) Both retrospective and prospective studies showed there was no increase in cancer after stressful events. Stress reduction did not decrease the development or recurrence of cancer.

**The conclusion of multiple studies is that stress decreases quality of life; it does not cause or promote cancer development.**

Like other urban myths, the association of stress and cancer continues in many people's minds. This belief is fueled by the feeling that anything that feels this bad, and makes you feel desperate, must be damaging you. Humans need to make sense of the world, especially a disease like cancer. We would rather accept the simple logic of superficially connected facts (though incorrect) than deal with more complex (and accurate) ideas that are harder to understand.

Humans also need to feel control over events. Feeling guilty (that we put up with stress instead of changing our circumstances) is preferable to feeling helpless. At least there is a connection, we may subconsciously feel, between what we did and the outcome. If we can change our stress causing attitudes or behavior, so much the better: there is even more control over life.

The bottom line is that stress in our lives is something to deal with. Sometimes we can change external events (a new job or relationship) to reduce stress. Outside circumstances, however, may not be within our control.

Always we can change internal events—the way we respond to the world—to reduce stress. Our reactions are within our control, even if we have to develop new ways of reacting to events. We don't need the excuse of cancer to do this. It is our right and obligation to learn new ways to survive.

The power over stress is within each of us. We don't need permission to ask for what we need. At any moment—at every moment—we can give ourselves support. We can learn new ways to speak to ourselves or to talk to others that are healthy and don't create more stress.

The real connection between stress and cancer is the fear we project on to it. It is not so much the fear of dying from cancer. It is the fear that we will not have lived our lives enough.

Perhaps you can answer Hamlet's question: "Whether 'tis nobler in the mind to suffer the slings and arrows of outrageous fortune, or to take arms against a sea of troubles, and by opposing, end them?" (Shakespeare, Hamlet III, Sc. 1)

The best way to prevent and reduce stress is to live each moment fully, without regret.