


Immune System Involved In Cancer Prevention

The April 26, 2001 issue of the journal *Nature* reports that scientists at Washington University and Memorial Sloan-Kettering Cancer Center in New York have come to the conclusion that the immune system is involved in preventing cancer.

25 years ago, scientists thought that the immune system was able to prevent cancer by identifying and destroying cells that had begun the process of transforming into cancer cells. This process came to be known as “immunosurveillance”.

Scientists abandoned this concept when an experiment in the late 1970s showed that the immune system played no part in cancer prevention. In that experiment, cancer cells were transplanted into mice with normal immune systems and mice with destroyed immune systems. The mice with destroyed immune systems didn’t develop cancer any more than those with normal immune systems.

The only problem was that the 1970s experiment was flawed. It turned out that the mice with supposedly destroyed immune systems still had a certain type of immune system cells called lymphocytes that form an active part of the immune system.

The recent New York research repeated the 1970s experiment and used mice with destroyed immune systems that truly lacked lymphocytes. It was amply demonstrated that the nervous system does indeed help in the prevention of cancer. The mice without lymphocytes developed tumors earlier and more frequently than the mice with normal immune systems.

By way of commentary, with the immune system under direct control of the nervous system, lifetime Chiropractic Wellness Care is vitally important to a healthy and fully functioning immune system. Everyone who wants a properly functioning immune system needs to have their spines checked on a regular basis. ▲

■ Connection Found Between Body's Gene Repair System And Innate Immunity

A study published in the December 8, 2000 issue of the journal *Cell* reports the discovery that an enzyme normally involved in the body's genetic repair system is also involved in the body's innate immunity, its first response against outside invaders such as viruses, bacteria and toxins.

The finding that the enzyme, DNA-PK provides a link between the body's genetic or DNA repair mechanism and its innate immunity confirms that the two systems are activated when the body encounters invading bacteria, viruses or toxins.

The body's innate immune system, when functioning correctly, identifies invaders by their structure and very quickly, within minutes, produces a large amount of natural killer cells to deal with the invader. The adaptative immune system will memorize this contact with an invader and over a period of days will gear up its attack with B- and T-cells. The adaptative immune system is also responsible for attacking the invader again if the body encounters it in the future.

In commentary, there is no question that the body has an inborn, innate immune system that is capable of protecting it from both internal and external dangers and we are happy that medical science is finally "discovering" this fact. Since its inception in 1895, chiropractic has held that this system will work correctly provided there is nothing interfering with how it functions. Chiropractic Wellness Care will make sure that your innate immune system will function to the best of its ability, keeping your body in a higher level of health. ▲

■ Long-Term Chiropractic Patients Have Higher Blood Levels Of DNA Repair Chemicals

The February 18, 2005 issue of the Journal of Vertebral Subluxation Research finds that patients under long-term chiropractic care have higher levels of the blood chemicals associated with effective DNA repair and overall wellness.

The test was a retrospective analysis of 46 patients, all over the age of 40 who had been under short-term chiropractic care for 8-52 weeks or long-term chiropractic wellness care for 52-312 weeks. Researchers assessed the levels of serum thiols, blood factors that have been found to help the body repair the damaging effects stress has on the structure of DNA. Serum thiols are measured in terms of 'nM cysteine'.

The authors found that non-chiropractic treated patients in the control group had serum thiol levels of 124 nM cysteine. Patients with active disease processes going on generally had levels below 90 compared to patients under long-term chiropractic care who had values of 146.

In their conclusion, the authors say, "some final observations should be noted. The results clearly support the recommendations being made for wellness care by chiropractors. In addition, it should be stated that these results occurred under normal practice conditions and indicate what most chiropractors are likely achieving when performing long-term care. Also, it refutes earlier views that five to seven years of care was necessary to optimize human health status, as indicated by serum thiol levels. Our sampling indicates that this can occur in a time frame approximately half that period. Finally, there is no doubt that chiropractic care was the dominant factor in being able to realize thiol values that in some cases have not been seen in nutraceutical testing, the only other intervention shown to improve thiol values."