



Boosting the Immune System in the Cancer Patient

Any treatment of cancer must include the immune system as a central factor. Immunotherapy – therapies designed to support optimal immune function – can enable the body to effectively subdue and reverse the cancer without adverse side effects associated with conventional therapies. Immunotherapy enlists the human immune system itself and its system of defenses as a potent anticancer agent.

A strong immune system can stop cancer by identifying cancer cells and mounting an effective attack against tumors and small groups of renegade cells that have spread from the primary tumor. Natural killer cells, macrophages, and cancer cell-killing T cells are the main types of immune cells involved in the body's protection against cancer. Their anticancer effects are particularly strong in the early stages of the disease. The body's lymphatic system (thymus, spleen, and lymph nodes) is the primary route, along with arteries and veins, whereby these immune cells travel to identify cancer cells for destruction and removal.

Surgery, radiation, and chemotherapy strongly suppress and weaken the immune system, sometimes producing irreversible damage. Blood transfusions, which often accompany surgery, will markedly suppress the immune system for one to two months on average and may actually elevate the risk of contracting cancer later. When the immune-suppressing effects of these toxic treatments are placed upon an immune system already weakened by chronic stress, pollution, faulty nutrition, and aging, it is easy to see why many cancer patients have a difficult time surviving orthodox treatments.

The immune system guards the body against foreign, disease-producing substances. Its "workers" are various white blood cells including one trillion lymphocytes and 100 million trillion antibodies, produced and secreted by the lymphocytes. Lymphocytes are found in high number in the lymph nodes, bone marrow, spleen, and thymus gland. These are further explained as follows:

Lymph Nodes: Lymph fluid flows in the lymphatic vessels throughout the body, helping to maintain the fluid level of cells and carrying various substances from the tissues to the blood. The human body has 1-2 quarts of lymph fluid. Lymph nodes are clusters of immune tissue that work as filters or 'inspection stations' for detecting foreign and potentially harmful substances in the lymph fluid. Acting like spongy filter bags, lymph nodes are part of the lymphatic system, which is the body's master drain. While the body has many dozens of lymph nodes, they are mostly clustered in the neck, armpits, chest, groin, and abdomen.

Thymus and Spleen: The thymus, located behind the breastbone, secretes thymosin, a hormone that strengthens immune response. It also instructs certain lymphocytes to specialize their function.

Leukocytes: Leukocytes are white blood cells divided into six types (neutrophils, basophils, eosinophils, monocytes, B-lymphocytes, T-lymphocytes) and two groups, according to the shape of the nucleus and the presence of granules within the cells; one group includes primarily neutrophils, and the other includes lymphocytes. The principal activity of the neutrophil is to ingest foreign particles, especially virulent bacteria and fungi.

Lymphocyte: A lymphocyte is a form of white blood cell, representing 25-30 percent of the total count, whose numbers increase during infection. Lymphocytes, produced in the bone marrow and found in the lymph nodes come in two forms: T cells, which are matured in the thymus gland and have many functions in the body's immune response; and B cells, which produce antibodies to neutralize an antigen.

Antibodies: An antibody is a protein molecule made by B lymphocyte cells in the lymph tissue and set in motion by the immune system against a specific antigen (foreign and potentially dangerous protein). An antibody is also referred to as an immunoglobulin and may be found in the blood, lymph, saliva, and the gastrointestinal and urinary tracts, usually within the first four days after the first encounter with an antigen. The antibody binds tightly with the antigen as a preliminary for removing it from the system or destroying it. There are five main types of immunoglobulins: IgG, IgA, IgM, IgD, and IgE.

T Cells: T cells specialize their immune function to become helper, suppressor, or natural killer cells. Helper cells facilitate the production of antibodies by the B cells. Suppressor cells suppress B-cell and immune activity.

Natural Killer Cells: Natural killer cells (NK) are a type of nonspecific, free-ranging immune cell produced in the bone marrow and matured in the thymus gland. NK cells can recognize and quickly destroy virus and cancer cells. "Armed" with an estimated 100 different biochemical poisons, they can kill target cells without having encountered them previously. As with antibodies, their role is surveillance, to rid the body of aberrant or foreign cells before they can grow and produce cancer. Decreased numbers of NK cells have been linked to the development and progression of cancer, as well as chronic and acute viral infections.

Macrophages: Macrophages are a form of white blood cell (originally produced in the bone marrow and called monocytes) that can swallow germs and foreign proteins, then release an enzyme that chemically neutralizes whatever is ingested. Macrophages are the vacuum cleaners of the immune system, ingesting everything that is not normal healthy tissue, even old body cells or cancer cells.

Interferon: Interferon, familiar to many as a cancer treatment, is a natural protein produced by cells in response to a virus or other foreign substance. Vitamin C and certain herbs can also stimulate its production.

Interleukin: Interleukin is a class of proteins with various immune functions, including T-cell activation.

In conventional medicine, if immunotherapy is used, it is typically only after surgery, radiation, or chemotherapy, and little or no effort is made to reduce the toxic effects produced by these therapies.

However, three new homeopathic injections are now available which stimulate the immune defense system in cases of chronic illness, viral infections, toxin build-up, slow metabolism, and weakened constitution as adjunctive treatment in cases of chronic illness and infections.

These are: *Glyoxal Compositum*, *Galium*, and *Ubichinon Compositum*. These injection solutions are combination formulas of botanical substances. Each is registered with the FDA as a homeopathic combination drug. Side effects or interactions with other drugs are rare.

These injections are now available at Janway Chiropractic and Acupuncture. To discuss if this treatment may be beneficial to you, please schedule a consultation with Dr. Janway today.

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