

THIRTEEN MAJOR EFFECTS OF OZONE ON THE HUMAN BODY

Dr. Frank Shallenberger

1. Ozone stimulates the production of white blood cells. These cells protect the body from viruses, bacteria, fungi and cancer. Deprived of oxygen, these cells malfunction. They fail to eliminate invaders and even turn against normal, healthy cells (allergic reactions). Ozone significantly raises the oxygen levels in the blood for long periods after ozone administration; as a result, allergies have a tendency to become desensitized.
2. Interferon levels are significantly increased. Interferons are globular proteins that orchestrate every aspect of the immune system. Some interferons are produced by cells infected by viruses. These interferons warn adjacent healthy cells of the likelihood of infection; in turn, they are rendered nonpermissive host cells, inhibiting viral replication. Other interferons are produced in the muscles, connective tissue and by white blood cells. Levels of gamma interferon can be elevated 400-900% by ozone. This interferon is involved in the control of phagocytic cells that engulf and kill pathogens and abnormal cells. Synthetic interferons are FDA approved for the treatment of Chronic Hepatitis B and C, Genital Warts (caused by Papilloma virus), Hairy-cell Leukemia, Kaposi's Sarcoma, Relapsing-Remitting Multiple Sclerosis and Chronic Granulomatous Disease. Interferons are currently in clinical trials for Throat Warts (caused by Papilloma virus), HIV Infection, Chronic Myelogenous Leukemia, Leukemia, Non-Hodgkins Lymphoma, Colon Tumors, Kidney Tumors, Bladder Cancer, Malignant Melanoma, Basal Cell Carcinoma and Leishmaniasis. While levels induced by ozone remain safe, interferon levels that are FDA-approved (and in clinical trials) are extremely toxic.
3. Ozone stimulates the production of Tumor Necrosis Factor. TNF is produced by the body when a tumor is growing. The greater the mass of the tumor, the more tumor necrosis factor is produced (up to a point). When a tumor has turned metastatic, cancer cells are breaking off and being carried away by the blood and lymph, allowing the tumor to take up residence elsewhere in the body. These lone cancer cells have little chance of growing due to the TNF produced to inhibit the original tumor. When the tumor is removed surgically, TNF levels drop dramatically and new tumors emerge from seemingly healthy tissue.
4. Ozone stimulates the secretion of IL-2. Interleukin-2 is one of the cornerstones of the immune system, secreted by T-helpers. In a process known as autostimulation, the IL-2 then binds to a receptor on the T-helper and causes it to produce more IL-2. Its main duty is to induce lymphocytes to differentiate and proliferate, yielding more T-helpers, T-suppressors, cytotoxic T's, T-delayeds and T-memory cells.
5. Ozone kills most bacteria at low concentrations. The metabolism of most bacteria is on average one-seventeenth as efficient as our own. Because of this, most cannot afford to produce disposable anti-oxidant enzymes such as catalase. Very few types of bacteria can live in an environment composed of more than two percent ozone.

6. Ozone is effective against all types of fungi. This includes systemic *Candida albicans*, athlete's foot, molds, mildews, yeast and even mushrooms.
7. Ozone is the best virucide. As discussed above, ozone goes after the viral particles directly. The part of the virus most sensitive to oxidation is the "reproductive structure." This is how the virions enter the cell. With this structure inactivated, the virus is essentially "dead." Cells already infected have a natural weakness to ozone. Due to the metabolic burden of the infection, the cells can no longer produce the protective enzymes necessary to deal with the ozone and repair the cell.
8. Ozone is antineoplastic. This means that ozone inhibits the growth of new tissue because rapidly dividing cells shift their priorities away from producing the enzymes needed to protect themselves from the ozone. Cancer cells are rapidly dividing cells and are thus inhibited by ozone.
9. Ozone oxidizes arterial plaque. It breaks down the plaque involved in both Arteriosclerosis and Atherosclerosis. This means ozone has a tendency to clear blockages of small and even large vessels. This allows for better tissue oxygenation in deficient organs.
10. Ozone increases the flexibility and elasticity of red blood cells. When one views a red blood cell under a microscope, it looks like a disc. In the capillaries, where they pick-up (lungs) and release (tissue) oxygen, these discs stretch out into the shape of an oval or umbrella. This aids the passage through the tiny capillaries and makes the exchange of gas more efficient. The increase in flexibility of the RBC's allows oxygen levels to stay elevated for days, or even weeks after treatment with ozone.
11. Ozone accelerates the Citric Acid Cycle. Also known as the Krebs's Cycle or TCA Cycle, this is a very important step in the glycolysis of carbohydrate for energy. This takes place in the mitochondria of the cell. Most of the energy stored in glucose (sugar) is converted in this pathway.
12. Ozone makes the anti-oxidant enzyme system more efficient. Cells respond to the beneficial oxidative stress by increasing their production of the protective enzymes.
13. Ozone breaks down petrochemicals. These chemicals have a potential to place a great burden on the immune system. They also worsen and even cause allergies and are detrimental to long-term health.