

CANCER & HYPERBARICS

In 2013, over 1.6 million people were diagnosed with cancer and over 500,000 cancer-related deaths occurred in the U.S. alone. Cancer is one of the leading causes of death, worldwide, and new integrated treatments are being utilized to help combat its devastating effects. Hyperbaric oxygen therapy (**HBOT**) is currently being utilized in conjunction with conventional treatments, including radiation and chemotherapy, to attain optimal dosages for patients, stimulate tumor regression and reduce the side effects of treatments. Cancer thrives in hypoxic environments and HBOT has been shown to increase these oxygen levels to weaken tumors and reduce their aggressiveness. Studies have demonstrated the benefits of HBOT for cancer with the following:

ENHANCE "CONVENTIONAL" CANCER THERAPIES & TREATMENTS WITH HBOT

- Reduces Tumor Hypoxia
 - Better Radiation Therapy Results
 - Improves Chemotherapy Outcome
 - Enhances Brain Treatment
- Decreases Tumor Drug Resistance
- Allows for Optimal Therapy Dosage to be Attained
- Increases Post-Op Fibroblast Activation

REDUCE SIDE EFFECTS OF "CONVENTIONAL" CANCER THERAPIES & TREATMENTS WITH HBOT

- Reduces Radiation Therapy Side Effects
- Decreases Chemotherapy Side Effects
- Accelerates Post-Operative Healing & Prevents Infection
- Reduces Chemo-Brain Syndrome Symptoms

ENHANCE IV CANCER TREATMENTS WITH HBOT

- Increases Intravenous Vitamin C Therapy Effect
- Enhances Chemotherapy Uptake

REDUCE TUMOR AGGRESSIVENESS WITH HBOT

- Weakens Hypoxic Tumors
- Targets Metastatic Tumors

INCREASE NATURAL KILLER CELL ACTIVITY AND FUNCTION WITH HBOT

- Increases Oxy-Radical Production
- Amplifies Apoptosis Effect
- Regresses Tumor Volume

CANCER PREVENTION WITH HBOT

- Decreases Inflammatory Markers
- Normalizes Intracellular Oxygen Levels
- Stimulates Cellular Detoxification
- Reduces Risk of Pathogenic Inflammatory-Related Tumors
- Supports Cellular Energy Processes for Optimal DNA Repair

Study: Tumor Regression Stimulated by HBOT

A non-randomized trial was conducted with 29 patients to evaluate the efficacy of radiotherapy combined with HBOT, in patients with a malignant glioma. Fifteen patients were irradiated daily after HBOT and fourteen other irradiated patients were treated without HBOT. In the HBOT group, 11 of 15 patients (73 percent) showed ≥ 50 percent tumor regression. In the non-HBOT group, only four of 14 patients (29 percent) underwent tumor regression. The median survival rate in patients with HBOT doubled that of the non-HBOT group (24 months vs. 12 months) respectively. No serious side-effects were observed in the HBOT patients. This provides additional support for HBOT to be a beneficial treatment for malignant gliomas.

K Kohshi, Y Kinoshita, H Imada, N Kunugita, H Abe, H Terashima, N Tokui and S Uemura (1999) Effects of radiotherapy after hyperbaric oxygenation on malignant gliomas. *British Journal of Cancer* (1999) 80(1/2), 236-241

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