

## The use of fever-range whole-body hyperthermia (FRWBH) in oncology in relationship to the therapeutic contexte

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Fever-range whole-body hyperthermia (FRWBH) with an elevation of body temperature to 38.5-40.5°C is widely used in complementary oncology in Germany. Most of the clinics consider it as an important basic module of an integrative cancer therapy.

But there are still a lot of questions on the mechanisms of FRWBH that are highly dependant from the therapeutic contexte.

Commonly accepted is the immune-stimulating effect of FRWBH especially for the recovery of the immune system after immune-suppressive cytotoxic therapies. This general immune-stimulating effect might also be crucial if FRWBH is used for lowering the risk of recurrence after successful primary therapy.

The mechanisms of FRWBH in the treatment of progressed and metastatic cancer disease are obviously more complicated. A direct anti-tumor immune effect seems to need a combination either with cytotoxic therapies, probably to enhance the antigen presentation to the stimulated immune system, or with cellular immunotherapies.

Otherwise basic research showed most interesting effects of FRWBH to the perfusion, oxygenation and Interstitial Fluid Pressure of tumor tissue that could efficiently enhance the efficacy of radio- and chemotherapy. Clinical research about this approach has just begun at the Roswell Park Cancer Instute Buffalo.

Especially the time-scheduling of FRWBH cannot be generally defined, but is dependant from the therapeutic contexte.

### ***Keywords***

Fever; whole-body hyperthermia; cancer; immunotherapy; chemotherapy