

[Int J Hyperthermia](#). 2008 Mar;24(2):111-22.

**The Kadota Fund International Forum 2004--clinical group consensus.**

[van der Zee J](#), [Vujaskovic Z](#), [Kondo M](#), [Sugahara T](#).

**Source**

Erasmus MC-Daniel den Hoed Cancer Center, Rotterdam, the Netherlands.  
j.vanderzee@erasmusmc.nl

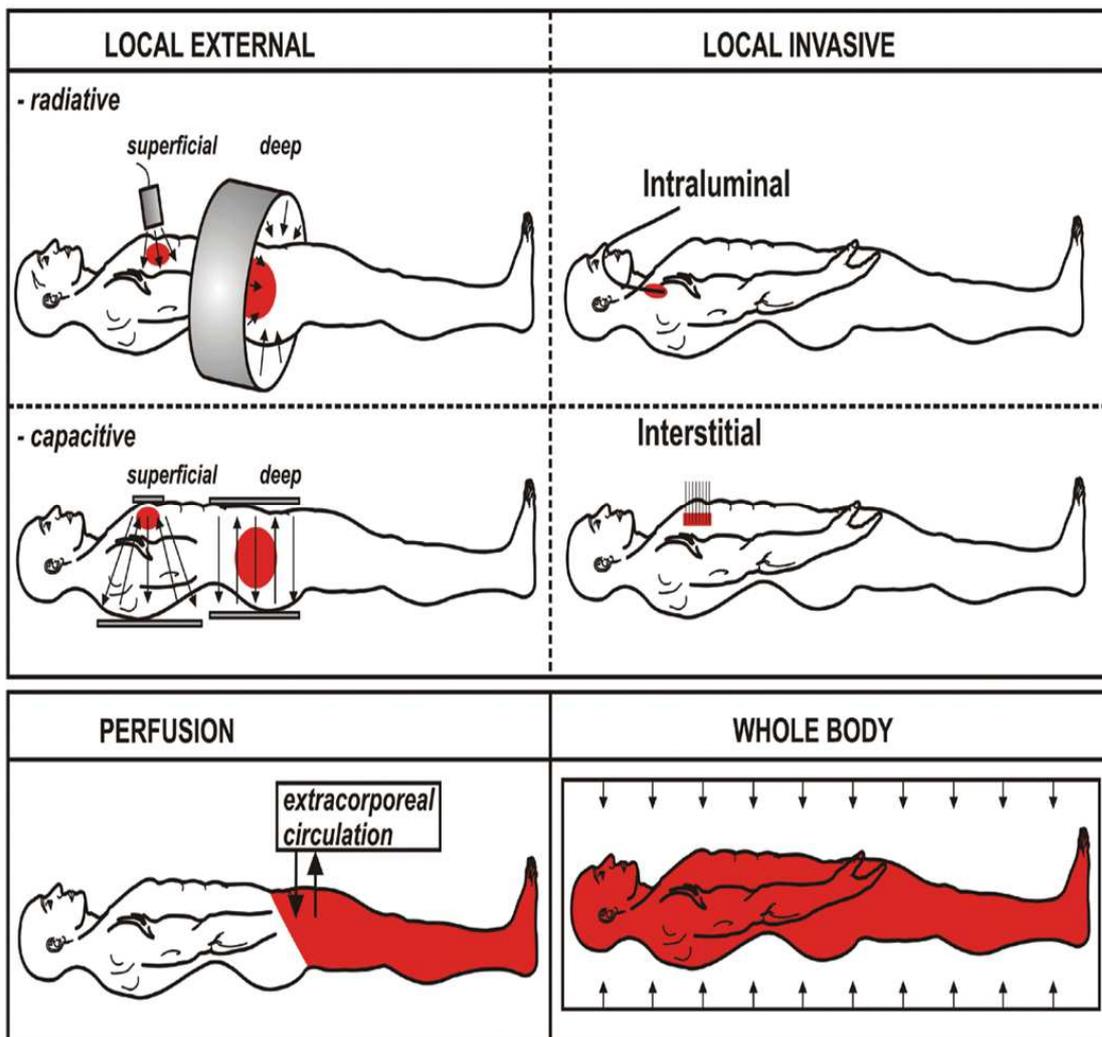
**Abstract**

The results from experimental studies indicate that hyperthermia is both an effective complementary treatment to, and a strong sensitiser of, radiotherapy and many cytotoxic drugs. Since the first international hyperthermia conference in 1975, Washington DC, techniques to increase tumour temperature have been developed and tested clinically. Hyperthermia can be applied by several methods: local hyperthermia by external or internal energy sources, perfusion hyperthermia of organs, limbs, or body cavities, and whole body hyperthermia. The clinical value of hyperthermia in combination with other treatment modalities has been shown by randomised trials. Significant improvement in clinical outcome has been demonstrated for tumours of the head and neck, breast, brain, bladder, cervix, rectum, lung, oesophagus, for melanoma and sarcoma. The addition of hyperthermia resulted in remarkably higher (complete) response rates, accompanied by improved local tumour control rates, better palliative effects, and/or better overall survival rates. Toxicity from hyperthermia cannot always be avoided, but is usually of limited clinical relevance. In spite of these good clinical results, hyperthermia has received little attention. Problems with acceptance concern the limited availability of equipment, the lack of awareness concerning clinical results, and the lack of financial resources. In this paper the most relevant literature describing the clinical effects of hyperthermia is reviewed and discussed, and means to overcome the lack of awareness and use of this modality is described.

**Keywords:** Hyperthermia, clinical results, level I evidence, review, acceptance of treatment

**Figure 1**

## HYPERTHERMIA TECHNIQUES



Methods for clinical application of hyperthermia.

Int J Hyperthermia. Author manuscript; available in PMC 2009 October 8.

Published in final edited form as:

[Int J Hyperthermia. 2008 March; 24\(2\): 111–122.](#)

doi: [10.1080/02656730801895058](https://doi.org/10.1080/02656730801895058)

PMCID: PMC2759185

NIHMSID: NIHMS147141