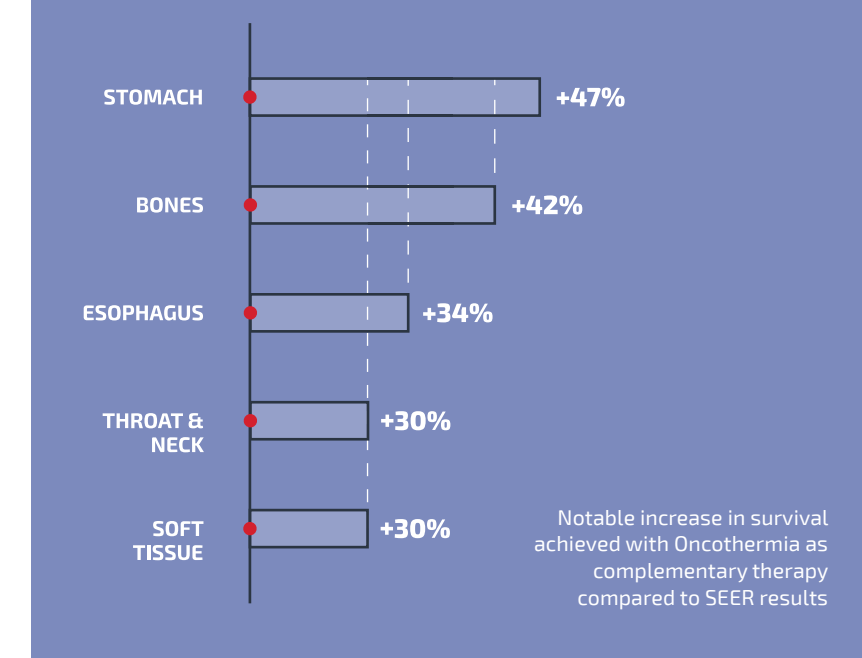
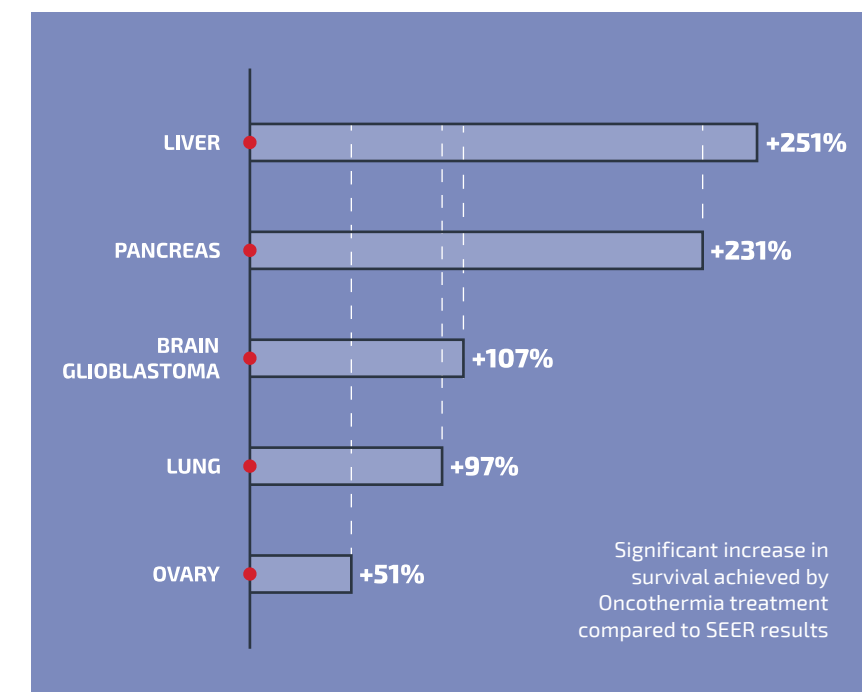


Medical and therapeutic benefits

Oncothermia, when used as a complementary treatment along with traditional medical therapies such as chemotherapy and radiation therapy, can significantly improve patients' conditions, prolong their survival and enhance their quality of life. This claim is backed by numerous case and clinical studies provided by leading doctors, both in Germany and in other countries, who use Oncothermia therapy on a daily basis in their offices and clinics. Given its unique combination of electric field and heat, Oncothermia can also be used for the treatment of tumors that are in constant motion

such as the lungs and in heat-sensitive regions such as the brain. It is effective in body regions with high levels of blood flow such as the liver and in regions with high levels of air circulation such as the lung. Many such body regions cannot be treated with conventional Hyperthermia, since such methods use temperatures over 40°C. In general, Oncothermia can be used with all stages of cancer, although its current main use is with advanced solid tumors that are hardly operable or inoperable, as well as with recurrent tumors and metastases.



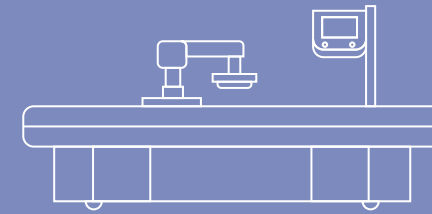
Additional average survival time after Oncothermia treatment compared to SEER database

- Results and number of cases from a large-scale retrospective study on the use of Oncothermia on different tumor entities. For all tumor entities studied, patients showed a higher survival rate in the first year after cancer diagnosis.
- To learn more about the publications, please visit <http://oncotherm.com/clinical-publications>.

PRODUCTS

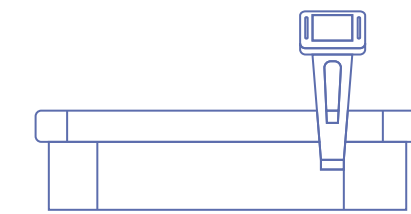
EHY-2030

The EHY-2030 is our latest development in the treatment of loco-regional (including deep seated and surface) tumors. The newly designed device includes the Smart Electrode System (SES), the plug-in Patient Management System (PMS-100) and a user-friendly touch screen display with full system control. The new RF generator with increased power has been developed with a new intelligently controlled step motor tuning system for rapid impedance matching to achieve faster tuning times.



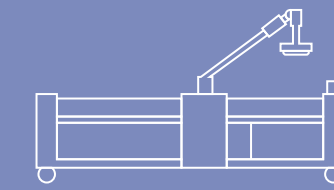
EHY-3010

The EHY-3010 is designed for the simultaneous multi-local treatment of advanced, metastatically disseminated, malignant and solid tumors. Within the range of Oncothermia systems, it is the pioneering breakthrough in the field of multi-local tumor therapy. Instead of a bolus electrode, this system uses textile electrodes, which are even more flexible to better adjust to the treatment area.



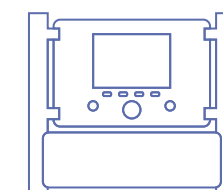
EHY-2000_{plus}

The EHY-2000_{plus} is a widely accepted system for loco-regional deep mEHT applications. This model has been used for treatment worldwide for more than 20 years. Popular, versatile device, applicable for a range of solid tumors and improved over the years through feedback from our doctors, experts, the requirements of patients and the people treating them. The EHY-2000_{plus} is an easy to use and highly reliable device.



EHY-1020

The EHY-1020 is specifically designed to treat prostate diseases. Both malignant and benign tumors (BPH) can be treated using this system. It uses a catheter with built-in electronics and counter electrode. The EHY-1020 system is compact and easy to use. The method has been successfully used by our customers since 2010 with high success rates and minimal side effect.



HUNGARY

Oncotherm Kft.
Gyár utca 2.
2040 Budaörs
Hungary
Phone (+36) 23-555-510
Fax (+36) 23-555-515
info@oncotherm.org
www.oncotherm.hu

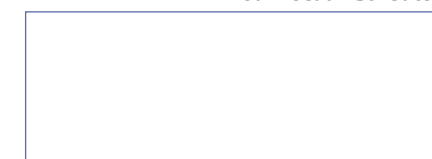
GERMANY

Oncotherm GmbH
Belgische Allee 9
53842 Troisdorf
Germany
Phone (+49) 2241-319920
Fax (+49) 2241-3199211
info@oncotherm.de
www.oncotherm.de

USA

Oncotherm Ltd.
LLC, 1942
Broadway Street
Suite 314C
Boulder CO 80302
United States
Phone: (406) 225-7009
www.oncotherm.com

Your Local Distributor



7.000093 R1

EHY – 2030 MODEL

Oncothermia systems

FOR LOCO-REGIONAL TUMOR TREATMENT



Oncotherm – About us

Oncotherm develops, manufactures and markets cancer treatment systems since 1988 that utilize Oncothermia to treat tumors. Oncothermia is a further development of the classical method of Hyperthermia, one of the oldest cancer treatment methods. It is a personalized, nontoxic therapy using an electric field that helps promote the body's natural regulatory processes. Oncotherm's mission is the patient's healthy future.

Oncothermia: how it works and how it is used

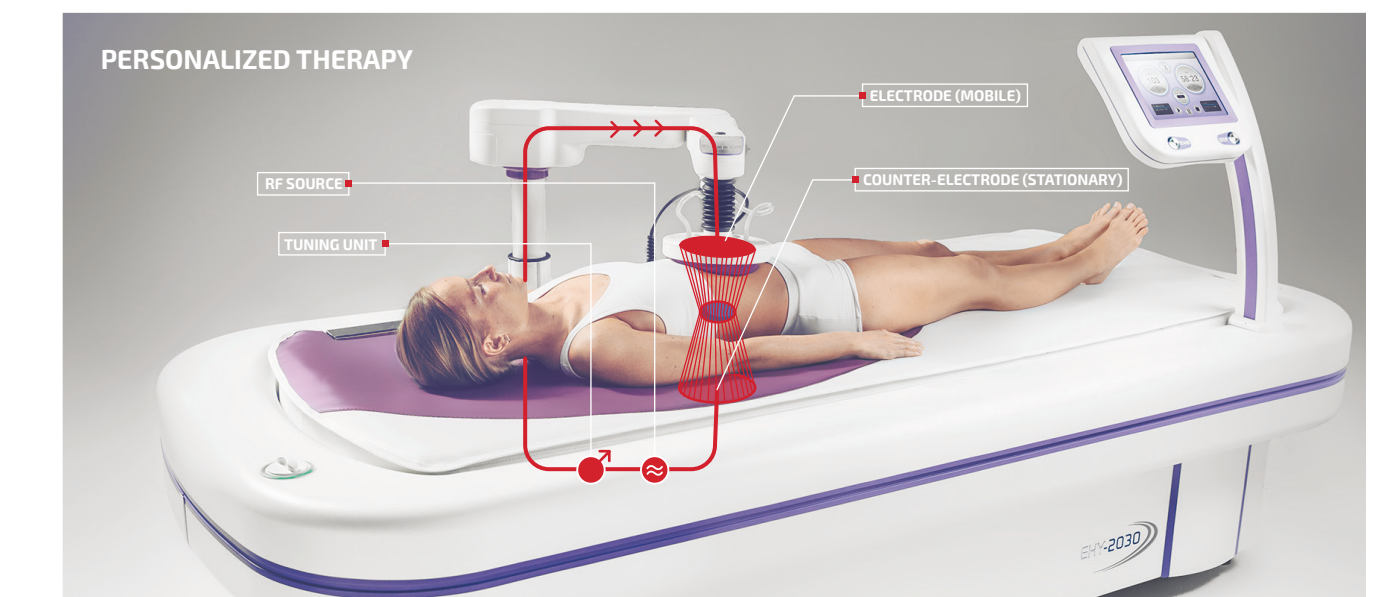
- A modulated electric field with a carrier frequency of 13.56 MHz is generated by two electrodes. Since malignant tissue has higher conductivity than healthy human tissue, the electric field tends to flow predominantly through the malignant tumor tissue. The combination of deep-layer heating and the electric field leads to stimulation of malignant tumor cells. This in turn, triggers increased apoptosis (natural cell death) in the tumor.

Oncothermia: the method

Oncothermia is the modulated electro-hyperthermia (mEHT). This is a heterogeneous, selective heating method compared to classical Hyperthermia which uses homogeneous heating that can result in burns. Thanks to the differences both at cellular and physiological level, the radiation primarily affects the tumor. Oncothermia typically heats the entire tumor to 40-42°C, with selective cellular temperatures of up to 45°C. The surrounding healthy tissue typically remains untouched and on normal temperature. While classic Hyperthermia works at a temperature of 42°C, Oncothermia achieves a greater effect on a cellular level, using a method called: Nanothermia. All electromagnetic radiation devices used for tumor treatment must fulfill stringent safety requirements. We meet all safety requirements and strive to exceed them through high standards, solid scientific findings and low levels of radiation. Oncotherm systems are fitted with special 120 dB attenuators of the carrier frequency (i.e. the surrounding radiation is a million times lower than in the patient him/herself). This means that at an output of 150 W the radiation is less than 2 mW. All Oncotherm systems are classified according to the guidelines on electromagnetic compatibility. Due to the focused energy flow of Oncothermia, more than 95% of the energy dose is absorbed into the tumor, compared to other classic Hyperthermia solution, with significantly less (approximately 1/10) effectivity. This high efficiency is the key to our greater effectiveness with an output of max 250W.

Schematic illustration of oncothermia treatment

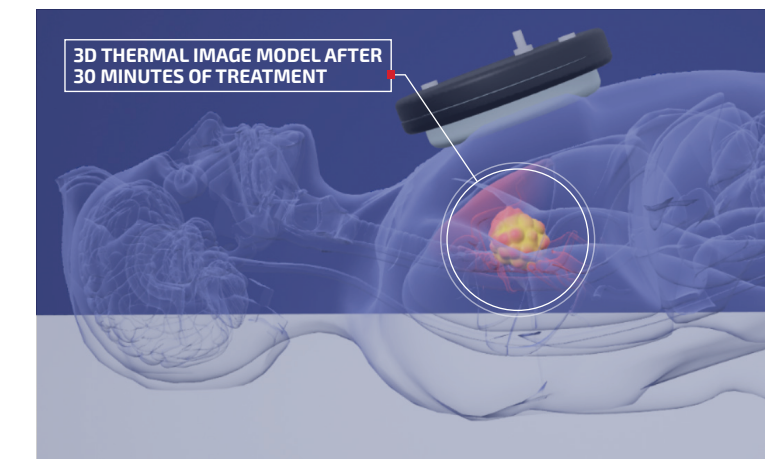
The illustration shows how the electric field, produced by the two active electrodes, passes through the patient's body. As shown schematically, the electric field tends to move through the pathways with the lowest impedance, i.e. through the malignant tissue (tumor).



Hyperthermia and Oncothermia

► EXPLAINING THE DIFFERENCE

Oncothermia, a unique improvement of conventional oncological Hyperthermia, represents the next generation of cancer therapies. Modulated electro-hyperthermia (mEHT) selectively destroys malignant cells by applying the required specific energy dose. While traditional Hyperthermia functions solely via certain thermodynamic parameters such as temperature, Oncothermia functions by controlling absorbed energy doses, via an approach similar to that used in radiation therapy. Oncothermia moves beyond conventional heat therapies by using controlled, selective energy transfer. Oncothermia transports energy directly to malignant cells, via a selective electric field to induce apoptosis. The entire treatment is controlled by the modulated electric field that passes through the patient. In the process, the tumor becomes a constant, controllable parameter within a closed electric circuit.

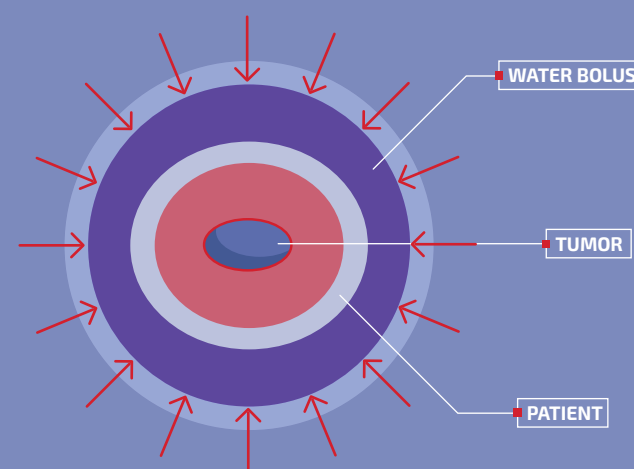


◀ Local Oncothermia treatment

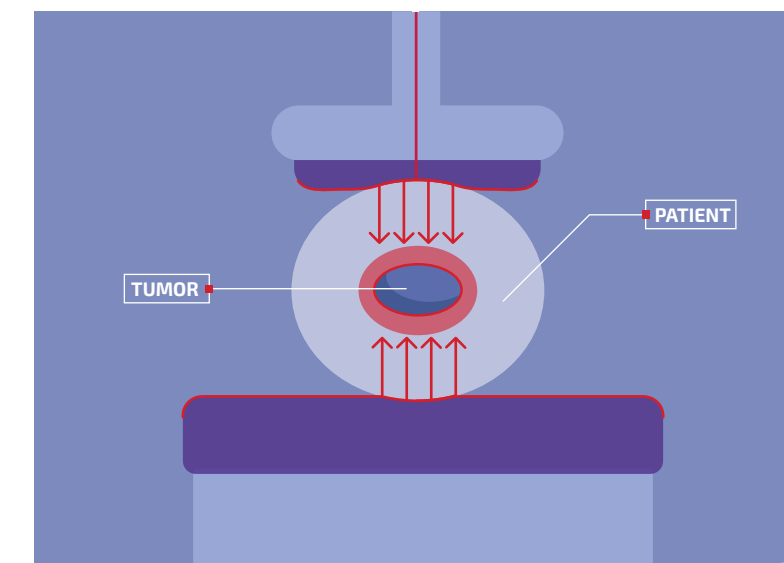
- In local Oncothermia treatment as well, very little heat is generated in the vicinity of the electrode. The patient is safe without the risk of skin burns.

Hyperthermia: even, focused heating

Oncothermia: conductive heating



Both malignant and healthy tissues are uniformly heated from all sides. The temperature difference between tumor cells and surrounding healthy tissue is hardly measurable (even, focused heating).



The electric field and resulting heat are directed to the area of the tumor cells. The temperature of the healthy tissue increases only very slightly (conductive heating).

EHY – 2030 MODEL

► REVOLUTIONARY NEW CONCEPT

- New automatic controlled step motor tuning system for rapid impedance matching to achieve faster tuning times
- Newly developed RF generator with increased power (max 250 W)
- Electronically controlled electrode arm to easily and accurately horizontally position the smart electrode
- User friendly touch screen display with full system control
- New shape and design to ease patient anxiety
- Changeable stretchy textile electrode for the smart electrode system and bed (Better and more direct contact can be reached with the new changeable textile electrode than with the earlier one. There is no distilled water between the electrode and the patient, which would be an additional insulation layer, only a 1,5 mm thick layer of biocompatible silicone or artificial leather)
- Hand-held emergency stop switch for the patients
- Plug-in *PMS-100* (Patient Management System)

Smart Electrode System (SES)

The SES is able to detect the proper matching of the electrode and the patient, and provides real-time visual feedback to the physician. The SES solution can improve the effectiveness of the treatment. ►

FEATURES

- Built-in Electrode Identification System and Electrode Lifetime Management
- Continuous communication with the main controller
- Controlled surface temperature to increase patient comfort



D200 electrode for treating sensitive areas (max 150W)

D300 electrode for large volumetric tumors (max 200W)

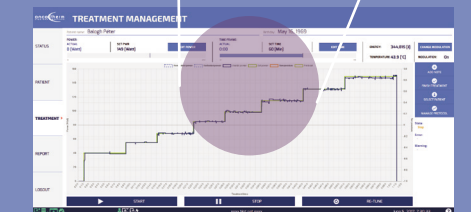
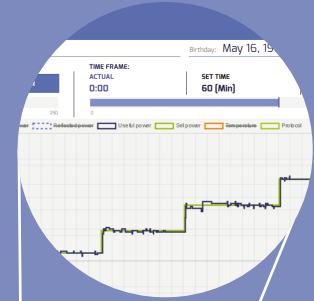


Patient Management System (PMS-100)



▼ FEATURES

- Newly developed hardware configuration, increased processor power for smooth software function execution
- Integrated high speed and capacity SSD driver to store patient and treatment log, module based information log
- Web based remote access and control in *Online mode*, with an independent remote, encrypted server to prevent data loss; in case of equipment malfunction, automated notification of service engineer
- Redesigned software architecture and easy to use user interface. Supported Oncotherm devices: EHY-2030 and EHY-2000plus
- Possibility to predefine the treatment process (step-up heating, automatic power increase)
- Built in QoL questionnaires for patient traceability and automated data assessment
- Multi language support (English, German, Hungarian, Korean, Japanese, French)



◀ Technical specifications

Mains voltage	AC 110-230V; 50/60Hz
Mains power input	max. 600 W
Maximum RF power output	max. 250 W
Nominal load	50 Ohm
Output carrier frequency	13,56 Mhz
Output modulating frequency	Pink noise
Weight	250 kg
Dimensions (HxLxW)	1320 x 2500 x 1150 mm
Operating temperature range	+15°C - +30°C
Relative air humidity	20% - 60% (non-condensing)
Air pressure	800 - 1060 hPa

CE 0123