Microwave diathermy

In the case of microwave diathermy, the frequencies are 2.45 GHz and the wavelength is 12.5 cm. This principle is most commonly used in households in microwave ovens. The source of centimeter waves are special vacuum tubes called magnetotrons. The advantage of this type of diathermy is that tissue with a higher water content (e.g. muscle tissue) is heated to a much higher temperature than the surrounding tissues. Electromagnetic waves have a very small penetration depth and are therefore ideal for treating superficial tissues. This type of therapy is considered in some practices as a more suitable alternative to short-wave therapy in terms of more precise targeting and simpler application. More suitable is the efficient production of heat in the muscles, which is increased compared to short-wave by 100-150%, but with half the load on the skin. The temperature after using this type of diathermy varies between 41-45 °C at the application site. Compared to short-wave diathermy, heating takes place in the entire radiation field.

Links

Related Articles

- Short wave diathermy
- Ultra short wave diathermy

References

- NAVRÁTIL, Leoš – ROSINA, Jozef, et al. *Medical Biophysics.* 1. edition. Prague : Grada, 2005. 524 pp. ISBN 80-247-1152-4.