

# Microwave ablation – A safety examination

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## **ABSTRACT**

**Introduction:** Microwave ablation is a minimally invasive procedure that has been used for the treatment of uterine fibroids. During the procedure, microwave energy is used to heat and destroy the fibroid tissue. Potential complications: Like any medical procedure, microwave ablation can have certain risks. Possible complications include infection, bleeding, damage to surrounding organs or tissues, pain, and skin burns. **Methods:** A study was done by microwaving 20 cow uteruses. We looked for the temperature changes at a distance of 3 cm from below, lateral, and above the microwave antenna with separate thermometers at 30-second intervals for a total of 7.5 minutes. **Results:** The results were obtained and placed in a graphical manner. The results showed that there was no increase in temperature anterior to the antenna. There was an expected temperature increase 3 cm lateral to the antenna. However, it was noted that there was a 20-40% increase in temperature posteriorly compare to the lateral temperature. This required a modification of the recommendation charts. **Conclusion:** We have recommended a change in the standard charts using these safety profiles. We further recommend that a further study with a larger number of specimens to be used. A better choice would be uterus samples with actual fibroids to be analysed soon after a hysterectomy, which has been performed as a treatment procedure.

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