

MEGA 2000® Patient Return Electrode and Patients with a Prosthesis

AORN's 2004 Recommended Practices for Electrosurgery state, "The (dispersive) electrode should not be placed over an implanted metal prosthesis. Tissue over prostheses contains scar tissue which impedes return of the electric current. Although there have been no reported injury from superheating of the implant causing a tissue burn, this is a theoretical risk."

While this has been an accurate recommendation for traditional patient return electrodes, it is no longer applicable when using the MEGA 2000 Patient Return Electrode System. The MEGA 2000 is designed using materials with a higher bulk resistivity, or impedance per area which WILL NOT ALLOW CURRENT TO FLOW at dangerous levels when the "contact" area becomes too small. The nature of the material properties used in the construction of this product prevents current densities from reaching unsafe levels.

Therefore, by design, the MEGA 2000 System limits, or regulates the current flow such that the current density is ALWAYS kept sufficiently low to prevent heat buildup under the pad and a subsequent burn. **It is this phenomenon that prevents localized heating and the potential for patient burns associated with prosthetic devices.**