

PRE-WARMING



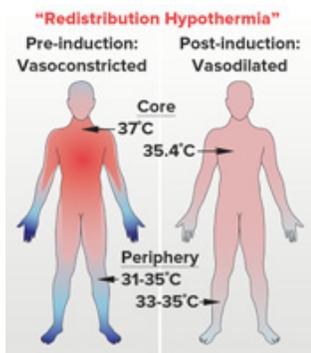
HOTDOG®
CONDUCTIVE FABRIC
PATIENT WARMING



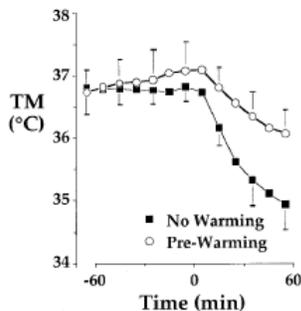
THE BENEFIT OF PRE-WARMING

To understand the benefits of pre-warming, one must first understand why nearly all surgical patients become hypothermic. The cold environment and IV fluids contribute, but anesthesia is the main culprit. Anesthetized patients lose the ability to control their own temperature, which typically results in a 1.6°C drop in core temperature in the first 30 minutes after induction.¹ That drop in temperature is caused by the free-flow of warm blood in the core to the cooler periphery.

Prewarming peripheral tissue (the legs) reduces redistribution hypothermia by decreasing the normal core-to-peripheral temperature gradient.²



(Adapted from *Anesthesiology*)¹



(Graph from *Anesthesiology*)²
 Redistribution hypothermia is reduced 1.1°C by prewarming.

References:

- 1) Sessler, DI. *Perioperative Heat Balance*. *Anesth.*, V92, No 2, Feb 2000.
- 2) Sessler, DI. *Complications and treatment of mild hypothermia*. *Anesthesiology*. 2001; 95:531-43.
- 3) Fettes, S. et al. *Effect of Preoperative Forced-Air Warming on Postoperative Temperature and Postanesthesia Care Unit Length of Stay*. *AORN Journal*. 2013; 97-3:323-28.
- 4) Nicholson, M. *A Comparison of Warming Interventions on the Temperatures of Inpatients Undergoing Colorectal Surgery*. *AORN Journal*. 2013; 97-3:310-22.

Q&A

Why have recent studies shown that pre-warming is ineffective?

Two studies have shown that pre-warming with forced-air warming (FAW) has no impact on post-operative temperatures.^{3,4} The reason is clear: for effective prewarming, the peripheral compartments must be warmed. FAW gowns, in particular, don't warm the periphery, and therefore, are not really pre-warming, they are comfort warming only.



"It's a huge patient-satisfier!"

-Jackie M., Director Day Surgery/PACU, North Carolina to *OutPatient Surgery Magazine*, October 2012

Pre-warming with HotDog

Full-body or lower-body blankets are ideal for pre-warming in recliners or on the gurney. Not only is it a "huge patient-satisfier," but it also can improve patient temperature outcomes.

Keys to success:

- Warm the legs to reduce the core-to-peripheral temperature gradient
- Pre-warm for at least 30+ min at 43°C heat setting

