HOTDOG WARMS SIGNIFICANTLY FASTER THAN FORCED-AIR

Conductive fabric warming (HotDog) showed significantly higher warming rates than forced-air warming (FAW) (0.35°C/hr vs 0.02°C/hr), when all other relevant variables were held constant in a prospective, randomized controlled trial. The temperature difference between the two groups was statistically significant at each data point after 30 minutes.

The authors’ conclusion: “We conclude from these data that the clinical heat transfer effectiveness of [HotDog warming] is significantly greater than FAW convection. This is due to the combination of conductive heat transfer and the larger surface area of simultaneously heating from above and below the patient.”


FORCED-AIR LEAVES PATIENTS COLD

Evaluating core temperatures in 58,814 adults having surgery lasting >60 min, Cleveland Clinic research reveals that forced-air warming systems frequently fail to prevent hypothermia:

- The incidence of hypothermia 2 hrs after induction was nearly 50%.
- “Intraoperative hypothermia was common, and often prolonged”

The Cleveland Clinic research confirms research published in 2014 in the Journal of Arthroplasty, revealing that a “disturbingly high” 26.9% of patients undergoing total hip or knee replacement remained hypothermic at the conclusion of surgery despite being warmed with Bair Hugger.* 3.7x more peri-prosthetic infections occurred in the cases where Bair Hugger failed.

“[T]he perioperative use of Bair Hugger alone is not sufficient to prevent hypothermia in every orthopedic patient.”

* Bair Hugger is a registered trademark of 3M

HYPOTHERMIA WITH FORCED-AIR WARMING

Derived from data in Sessler, Anesthesiology (2015)
Surface Area & Warming Effectiveness Comparison:
HotDog vs. Forced-air vs. Underbody Only

Forced-air warming:
- Inefficient blankets

Underbody Only:
- Insufficient heat transfer

HotDog patient warming:
- Efficient heat transfer
- Maximum surface area

HotDog meets the challenge
The HotDog system is versatile and adaptable, able to meet all of your patient warming needs. Consider using HotDog for these challenging cases to really experience the difference:

- Large heat-loss abdominal cases
- Full frontal prep (i.e., Cardiac)
- Wet cases (i.e., Plastics)
- Steep Trendelenburg positioning
- Avoiding implant infections

Why Warm?

Warming saves lives
Hypothermia causes many complications:
- Increased wound infections
- Increased blood loss
- Increased ICU times and hospital stays
- Higher mortality rates
- Increased transfusion requirements

“Even mildly hypothermic patients could suffer an increase in adverse outcomes that can add costs of as much as $2,500-$7,000 per patient."

Reference citations available at www.hotdog-usa.com

Typical Pattern of Hypothermia

PRE-WARMING
The only way to reduce redistribution hypothermia is by pre-warming, specifically pre-warming the legs. HotDog can effectively pre-warm patients to reduce hypothermia.

REDISTRIBUTION
Anesthesia causes vasodilation and a free-flow of core blood to the peripheral compartments. The patient’s overall temperature drops 1.6°C in the first 30 min following induction.

POIKILOTHERMIC
Under anesthesia, the patient becomes poikilothermic (temperature varies with environment). Rate of re-warming depends on the delta between active warming and heat loss from conduction, convection, radiation, and evaporation.

www.hotdog-usa.com
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6581 City West Parkway
Eden Prairie, MN 55344
Phone: +1 952-746-1720
Toll free: 1-888-439-2767
Email: info@hotdog-usa.com

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