



CONDUCTIVE FABRIC:
THE NEXT WAVE
IN PATIENT WARMING



THE **NEXT WAVE** IN PATIENT WARMING



HotDog patient warming makes blowing hot air obsolete.

Developed by the same team that invented Bair Hugger®¹ forced-air warming more than 20 years ago, HotDog conductive fabric warming was inspired by the inability of forced-air to meet the demands of today's clinicians and healthcare facilities.

In a time of strained budgets, infection risks, and universal warming initiatives, HotDog provides effective warming, meets governmental warming protocols, and eliminates the risks of blowing air—all at a significant cost savings.

SAVES MONEY

You can save 50–75% on your patient warming costs while meeting governmental warming guidelines. (pg. 2)

AIR-FREE

HotDog conductive fabric warming eliminates airborne contamination risks caused by forced-air warming. Recent evidence shows that the rising waste hot air from forced-air warming disrupts the Laminar Flow ventilation in sterile surgical environments, sending dirty air into the sterile field. (pg. 4)

ERGONOMIC

Designed for maximum comfort, efficiency, safety, and ease of use. (pg. 6)

GREEN

HotDog is the only patient warming technology green-certified by Practice Greenhealth. (pg. 7)



Multi-function controller with head wrap.

SAVES MONEY

AIR-FREE

ERGONOMIC

GREEN





HOTDOG SAVES MONEY

Only conductive fabric warming allows you to warm all patients, comply with normothermia mandates, and SAVE MONEY.

COMPLY WITH WARMING PROTOCOLS

HotDog technology allows you to comply with healthcare warming guidelines;² like SCIP in the United States and NICE in the United Kingdom. Now that normothermia measures are tied to quality ratings, it's more important than ever to *warm everyone*.

WARMED PATIENTS HAVE BETTER OUTCOMES*

HotDog warming helps you achieve these better outcomes on more patients. Reducing infection rates by maintaining patient normothermia not only protects patients, it also avoids the cost of treating hospital acquired conditions. One meta-analysis has shown adverse outcomes from unintended hypothermia cost thousands of dollars per patient.⁶



HotDog warming gives you 300% more normothermia per dollar than forced air.⁷



**“We love it, but more importantly, our patients love it.
HotDog saved my budget.”**

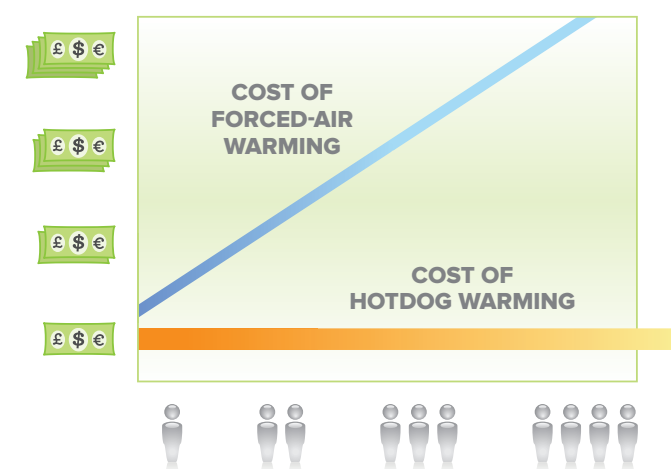
—Anesthesiologist, Minnesota

*Hypothermia is proven to increase the chance of myocardial infarction and morbid cardiac events,^{3,4} interfere with drug metabolism,³ triple the rate of surgical site infections,⁵ impair wound healing,³ and increase postoperative bleeding and blood transfusion needs.³ Furthermore, a meta-analysis found that these adverse outcomes from unintended hypothermia resulted in prolonged hospital stays and increased health expenditures by \$2,500–\$7,000 per patient.⁶ The HotDog patient warming system prevents unintended hypothermia and, therefore, ensures better outcomes.



WARM ALL PATIENTS AND SAVE MONEY

High-priced disposable forced-air blankets make warming all patients cost-prohibitive. HotDog conductive fabric patient warming can save facilities between 50–75%⁷ compared to forced-air. How is this possible? Reusability.



HotDog warming keeps costs flat.



Pre-op



Intra-op



Post-op

INTRAOPERATIVE WARMING — SAVE UP TO 50%

- Meet normothermia guidelines by warming all patients *intraoperatively*, and **save up to 50%** on your warming budget.

COMPLETE PERIOPERATIVE WARMING — SAVE UP TO 75%

- Intraoperative warming does not prevent the 1.6°C redistribution temperature drop⁸ upon induction of anesthesia. In fact, historic forced-air data reveal that more than half of intraoperatively warmed patients are hypothermic upon admission to the recovery room.⁹ Complete perioperative warming is recommended to ensure patient normothermia.
- Only prewarming can ensure patient normothermia. HotDog *perioperative warming* **can save 75%** compared to disposable forced-air.



HOTDOG IS AIR-FREE

HotDog warming maintains patient normothermia with ThermAssure™ conductive fabric—no blowing hot air.

EFFECTIVE

HotDog patient warming is equally as effective as forced-air warming.^{10,11}

SILENT

HotDog eliminates the constant, irritating blower noise.

SAFE

ThermAssure conductive fabric delivers uniform, safe, and controllable heat while eliminating airborne contamination risks caused by forced-air warming.



“I like using HotDog because it’s air-free, silent, and out of the way. It makes it easier to concentrate without the distracting noise and excess heat.”

—Orthopedic Surgeon, Minnesota

Conductive fabric warms without blowing air. HotDog can warm upper body, lower body, or both depending on your needs.



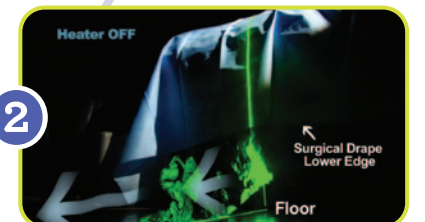
HotDog won't destroy the sterile field.

Recent research has established that rising hot air from forced-air warming disrupts the protection provided by the Laminar Flow ventilation systems used in ultra-clean operating rooms such as those used for orthopedic, cardiac and neuro surgery.¹²

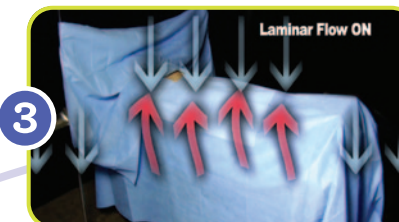
Internal contamination of forced-air systems is also an issue. A department of public health in the United States called Bair Hugger systems, “reservoirs of infection.”¹³



Within Laminar Flow, all air moves downward, creating a sterile field over the surgical patient.



With the forced-air heater “off,” the waste air is pushed down to the floor and out the vents by Laminar Flow.



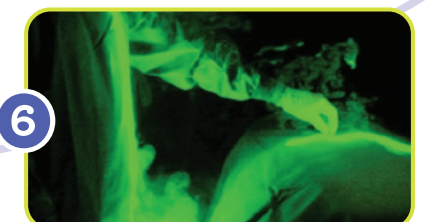
However, with the forced-air heater “on,” the warm air overpowers the downward air in the Laminar Flow, destroying its effectiveness.



Smoke and lasers reveal the laws of physics. Waste heat from forced-air blankets rise along the sides of the table and over the sterile field.



The waste heat actually follows the contours of the surgeon’s body. This explains why surgeons complain about feeling hot.



Surgeons’ arm movements can literally throw dirty air into the ultra-clean surgical site.

FORCED-AIR WARMING DISRUPTS LAMINAR FLOW

THE PHYSICS IS SIMPLE: **HEAT RISES**



HOTDOG IS ERGONOMIC

ThermAssure™ conductive fabric technology allows HotDog warming to be ergonomically superior to forced-air warming for both the user and the patient.

USER ERGONOMICS

- Lightweight, flexible blankets contour to the patient, providing low profile, out-of-the-way warming
- Easily and silently integrates into the hospital environment as opposed to disruptive, bulky, noisy forced-air blowers and hoses
- Designed for easy cleaning
- Exceptionally easy to use and to position on patients

PATIENT ERGONOMICS

- Patients love the comforting, contact warmth as opposed to the industrial “hair dryer” feeling of forced-air
- Temperature sensors communicate with a microprocessor to ensure proper operation and maximum safety

Er-go-nom-ic *adj* designed for maximum comfort, efficiency, safety, and ease of use, especially in the workplace



HOTDOG IS GREEN



HotDog patient warming is the eco-smart solution.

HotDog patient warming is the only temperature management product green-certified by Practice Greenhealth, a leading organization promoting sustainable healthcare practices:

LESS WASTE¹⁴

- HotDog consumes 80% less energy than forced-air, which could reduce carbon dioxide emissions by an estimated 200 million pounds per year.
- Disposables create mountains of waste. Switching to reusable HotDog warming could eliminate over 12 million pounds of forced-air disposable waste worldwide per year.*

THE RESPONSIBLE CHOICE

- The outer material of HotDog blankets is manufactured DEHP/phthalate-free, so there is no harm to the environment.
- We recover HotDog equipment at the end of its life to recycle and safely dispose of the components.

Now there is an effective warming solution that is environmentally responsible.



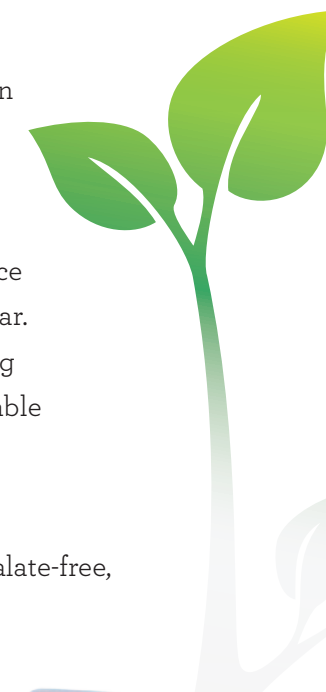
**PRACTICE
Greenhealth
MEMBER**



“We have been extremely pleased with the HotDog which allows patient warming to be readily applied in a targeted way. This fulfills the important aims of the NICE recommendations.”

—Anesthesiologist, United Kingdom

* Based on 37.5 million surgeries worldwide per year using patient warming for an average of 2.5 hours per use.



**HOTDOG
WARMING**

**FORCED-AIR
WARMING**





SAVES MONEY



AIR-FREE



ERGONOMIC



GREEN

THE DECISION IS CLEAR. CHOOSE HOTDOG:

THE NEXT WAVE^{IN} PATIENT WARMING

TOTAL ACCESS WARMING™

HotDog Under Body Mattress and Torso Blanket provides effective warming and unrestricted access to the patient.

Torso Blanket

Minimum patient surface coverage; maximum patient access.



Multi-Function Controller
Operates multiple HotDog warming products simultaneously.

Underbody Mattress
Provides total access to patient.



“The HotDog system fits into our O.R. environment better than anything else we’ve used—it’s easy to use and out of the way.”

—Anesthesiologist, Virginia

The HotDog Patient Warming System easily integrates into the hospital environment. The underbody warming mattress secures to existing mattresses and is concealed under the cotton sheet during procedures.



Clinician Warming Vest
Designed for you. Conductive fabric heater, adjustable warmth settings, and a washable shell.



Multi-position Blanket
Adaptable blanket; revolutionary design.



Lower Body (above)/Full Body Blankets
Ideal for pre- and post-operative warming.



CONDUCTIVE FABRIC WARMING

REFERENCES ¹ Bair Hugger is a registered trademark of Arizant Healthcare, Inc. ² <http://www.qualitynet.org> ³ American Society of PeriAnesthesia Nurses. Clinical Guidelines for the Prevention of Unplanned Perioperative Hypothermia. www.aspan.org; 2001. ⁴ Tryba, M. Leban, J., et al. Does active warming severely injured trauma patients influence perioperative morbidity? Anesthesiology. Vol. 85; 1996: A23. ⁵ Kurz, A. Sessler, D.I. Lenhardt, R. Perioperative normothermia to reduce the incidence of surgical-wound infection and shorten hospitalization. N Engl J Med. 334:1209-1215, 1996. ⁶ Mahoney, C. Odom, J. Maintaining intraoperative normothermia: a meta-analysis of outcomes with costs. AANA Journal. 67; 155-164, 1999. ⁷ Derived from Clancy, T., PhD; Macario, A., MD. Computer Simulation Model of the Economics of a Reusable Fabric Technology Warming Blanket Compared to a Disposable Forced-Air Warming Blanket. Abstract. International Anesthesia Research Society. 2010. ⁸ Sessler, D.I. Current concepts: mild perioperative hypothermia. N Engl J Med. 1997;336(24):1730-1737. ⁹ Young, V. Watson, M. Prevention of Perioperative Hypothermia in Plastic Surgery. Aesthetic Surgery Journal. 2006; 55:1571. ¹⁰ Kimberger, O. et al. Resistive Polymer Versus Forced Air Warming: Comparable Heat Transfer and Core Rewarming Rates in Volunteers. Anesthesia & Analgesia. 2008; 107(5): 1621-1626. ¹¹ Brandt, S. et al. Resistive-Polymer Versus Forced-Air Warming: Comparable Efficacy in Orthopedic Patients. Anesthesia & Analgesia. 2009 Dec 30 [Epub ahead of print]. ¹² <http://www.heat-rises.blogspot.com> ¹³ Beavers, Suzanne, M.D.; CDR Doug Thoroughman PhD. "Acinetobacter Infections among Hospitalized Patients in Kentucky – 2006". Kentucky Epidemiologic Notes and Reports. 42.2; March 2007: 1-3. ¹⁴ Bavazit Y, Sparrow EM. "Energy efficiency comparison of forced-air versus resistance heating devices for...." Energy (2009) doi:10.1016/j.energy.2009.09.026

See outline FPO



ONLY HOTDOG GUARANTEES:

**Meet
Normothermia
Standards
for HALF COST**

**UNLIKE OTHERS,
WE'RE NOT JUST
BLOWING HOT AIR!**



"Let me reassure you, switching to HotDog is the right choice. My patients, clinicians, and facility have all benefited from the change."

—Anesthesiologist, Minnesota

Conductive Fabric: The Next Wave in Patient Warming

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