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Because a few degrees can make all the difference

Patients undergoing general or regional anaesthesia are susceptible to hypothermia as their body's ability to regulate core temperature becomes impaired.

Prewarming with 3M™ Bair Hugger™ Warming Blankets or 3M™ Bair Hugger™ Warming Gowns:

- Can reduce core temperature drop by decreasing the core-to-periphery temperature gradient[1]
- Can help maintain normothermia, along with intraoperative warming. These protocols have been shown to reduce the rate of numerous complications, including SSI[1]

Short durations of prewarming at

10-20 minutes

before anaesthesia induction can help to reduce the risk of hypothermia[1]

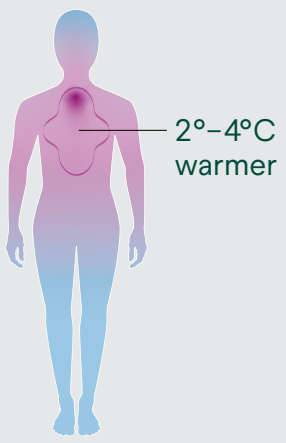
A quality improvement project involving 149 patients over a 2 year period showed prewarming with

a lower rate of 11.69%

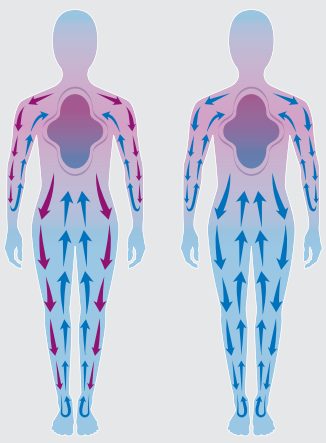
for postoperative hypothermia compared to 48.61% in the group with no prewarming[2]

Effects of anaesthesia on patient temperature

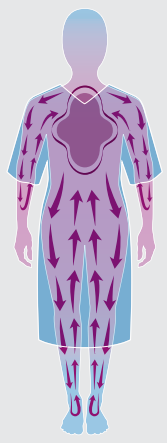
During the first 60 minutes of anaesthesia, research has shown that unwarmed surgical patients can drop their core temperature up to 1.6°C,[3] as anaesthesia-induced vasodilation allows the body's warmer core blood to flow freely through its cooler periphery.



Under normal circumstances, the body controls its temperature within a very tight tolerance, with its core 2°-4°C warmer than its periphery. This temperature gradient between the core and the periphery is caused by normal thermoregulatory processes.



Anaesthesia causes vasodilation, which allows the warmer blood to flow freely from the core and mix with the blood from the cooler periphery. The cooler blood returns to the heart where it causes a drop in core temperature. This drop in temperature is called redistribution temperature drop (RTD).



Prewarming with forced-air warming solutions can increase the temperature of the body's peripheral tissues, limiting the amount of heat lost from the core through RTD. The warmer periphery limits the blood's rate of cooling and allows the blood to return to the core at a higher temperature.

Benefits of prewarming

Prewarming with Bair Hugger warming blankets and warming gowns is an important step in a comprehensive patient warming protocol that also includes intraoperative warming. These protocols can help reduce the risk of hypothermia, which can lead to costly complications.[1]

Prewarming can help improve clinical outcomes

A drop of just 1.5°C to 1.9°C in patient temperature has been shown to have profound adverse effects on patient outcomes and health care costs.[2]

It has been shown that 30 minutes of prewarming with forced air before anaesthesia increased the temperature of the periphery by an amount greater than the amount of heat redistributed from the core during Phase I of anaesthesia.[4]

Prewarming can increase patient satisfaction

A study of more than 1,800 patients showed that **73% of participants** using Bair Hugger warming gowns indicated a positive impact on their surgical experience.[5]

The gowns are comfortable, provide enhanced patient modesty and dignity (over cotton gowns), are opaque and have neck and waist ties that give an abundance of fabric for ample coverage. There are multiple sizes that can fit almost any patient.

For more information please contact your Solventum sales representative

References: 1. Horn EP, Bein B, Bohm R, Steinfath M, Sahili N, Hocker J. The effect of short time periods of pre-operative warming in the prevention of peri-operative hypothermia. *Anaesth.* 2012;67(6). **2.** Hooven K. Preprocedure warming maintains normothermia throughout the perioperative period: a quality improvement project. *JoPAN.* 2011;26910:9-14. **3.** Sessler, DI. Current concepts: mild perioperative hypothermia. *New Engl J Med.* 1997;336:1730-1737. **4.** Sessler DI, Schroeder M, Merrifield B, Matsukawa T, Cheng C. Optimal duration and temperature of prewarming. *Anesthesiology.* 1995;82(3):674-681. **5.** VanDuren, AI. Patient warming plays a significant role in patient satisfaction, clinical outcomes. *ICT.* 2008;12(6).

Note: Specific indications, limitations, contraindications, warnings, precautions, and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application.

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