

The Science of Patient Warming

Why you need to protect your patients from hypothermia.

Hypothermia is the Most Common Thermal Consequence of

Surgery
General anesthesia
Imaging



What is Hypothermia in cats and Dogs?

Body temperature
between **37** and **35.8** degrees
Centigrade.



For more information please visit us at dreveterinary.com

Body Heat is Lost By:

Radiation – the transfer of infrared radiant energy to the environment.

Conduction – the direct flow of heat from the body to the air or surrounding materials.

Convection – the transfer of body heat from the patient by the physical movement of ambient air.

Hypothermia Occurs in Three Phases Following Anesthetic Induction

Phase 1: Within 1 hour of induction.

Phase 2: Between 2 and 3 hours of induction.

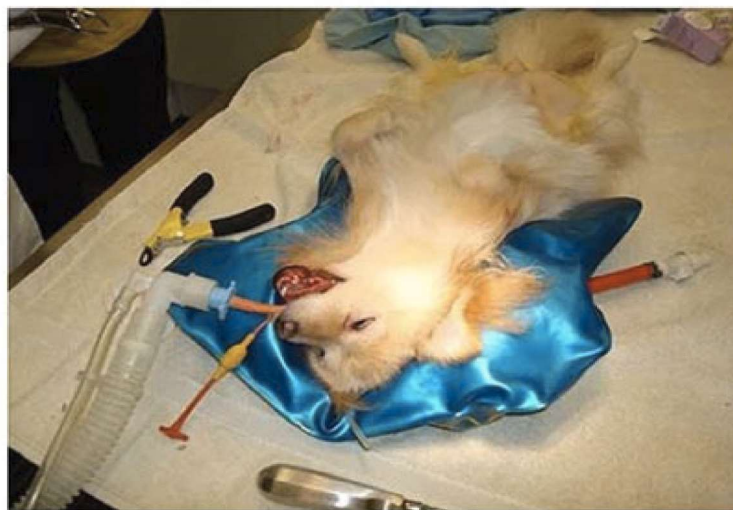
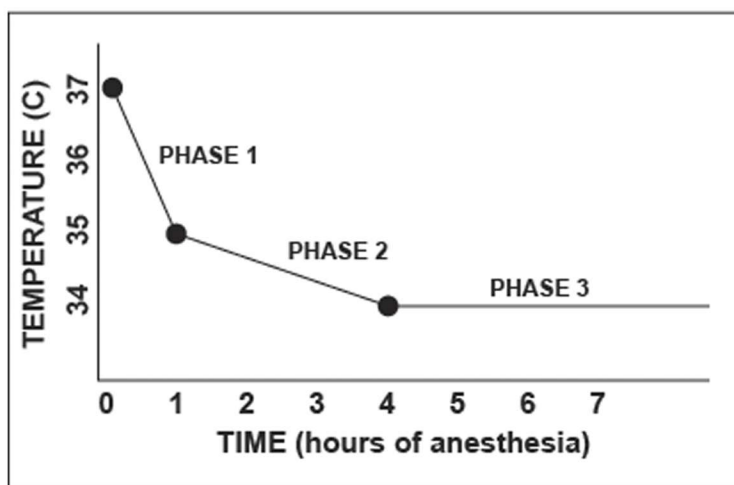
Phase 3: After 4 hours or more hours of induction.

Phases of Hypothermia During Anesthetic Induction

Phase 1: Rapid decline of body temperature in the first hour because of redistribution of warm blood to the periphery where it is lost through the skin by radiation and convection.

Phase 2: Slower linear decline in body temperature in the next two hours because of heat loss exceeding internal heat production.

Phase 3: Body temperature stabilizes over the next three to four hours.



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Deleterious Consequences of Patient Hypothermia:

- Cardiac arrhythmias
- Decreased blood oxygen
- Postoperative protein breakdown
- Impaired kidney function
- Poor wound healing
- Blood vessel constriction
- Blood clotting problems
- Altered mental status
- Decreased drug breakdown
- Surgical site infections
- Death



The Solution

The **General Use** and the **MRI-Safe ConRad® Thermal Blankets** act as a barrier to all three mechanisms of body heat loss, protecting your patients from the deleterious consequences of anesthesia induced hypothermia.



Simply place a **General Use** or **MRI-Safe ConRad Thermal Blanket** over the patient immediately upon induction of anesthesia to maintain normothermia.

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