

GOVT. COLLEGE OF NURSING,  
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**TOPIC:-HOT APPLICATION**

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FOR:- B.Sc. Nursing Part- I

# DEFINITION

- Hot application is the act of bringing something into contact or of starting an action of heat.
- In nursing intervention hot application is defined as stimulation of the skin and underlying tissues with heat for the purpose of decreasing pain, muscle spasms or inflammation.

# Learning Objectives

- **1.** State the purposes for applying heat to the body; for applying cold to the body.
- **2.** Describe the rationale for maintaining normothermia in the client.
- **3.** Explain specific precautions when applying heat; when applying cold.
- **4.** Demonstrate the administration of a leg soak, a sitz bath, and the aquathermia pad.
- **5.** Demonstrate the use of the cooling blanket and the application of an ice collar or ice bag.

# NORMOTHERMIA

- **Body temperature must be maintained within a fairly narrow range—normothermia or normal body temperature.**
- normothermia during surgery helps prevent surgical site infections (SSI) and other complications.
- A number of special gowns and blankets are available to help maintain total body normothermia, using dry heat. Warmed IV fluids may also be given.

# HEAT

- **Heat is often applied in general client care.**
- Heat causes vasodilation (enlargement of blood vessels), increasing blood flow to a specific area.
- This increases the oxygen, nutrients, and various blood cells delivered to body tissues.

# Rationale for Heat Application

## **Heat application serves to:**

- Relieve local pain, stiffness, or aching, particularly of muscles and joints
- Assist in wound healing
- Reduce inflammation and infection
- Make the chilly client more comfortable
- Raise body temperature to help maintain normothermia
- Promote drainage (draw infected material out of wounds)

# Approximate Range of Temperatures for Hot and Cold Applications

- **Hot**            **37.7°C-40.5°C**            **100°F-105°F**
- Warm            35°C-37.7°C            95°F-100°F
- Tepid            26.6°C-35°C            80°F-95°F
- Cool            18.3°C-26.6°C            65°F-80°F
- Cold            10°C-18.3°C            50°F-65°F
- To convert Fahrenheit to Celsius:  
$$C = (F - 32) \times \frac{5}{9}$$
- To convert Celsius to Fahrenheit:  
$$F = (C \times \frac{9}{5}) + 32$$

# Specific Localized Heat Therapies

- Aquathermia Pad
- Heat Lamp
- Electric Heating Pad.
- Moist Heat
- Sitz Bath

**THANKS**

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