

PARAFFIN WAX BATH

Paraffin wax bath therapy is an application of the molten paraffin wax on the body part

The melting point of wax is 51-55°C. If the molten wax at 51-55°C is poured on the body part, it may cause burn. Some impurity like liquid paraffin or mineral oil is added to lower the melting point for safe application. **Thus the temperature of the paraffin wax is maintained at 40-44°C**

The combination of the wax and the mineral oil has low specific heat This enhances the patient's ability to tolerate heat from the wax better than from the water of the same temperature. **The composition of the paraffin wax: mineral oil: petroleum jelly is 2:1:1 or Wax: paraffin or mineral oil is 7:1.**

The mode of the transmission of heat from paraffin to the patient skin is through conduction.

Characteristics of PWB

Paraffin has a **slow thermal conductivity**

- Slow heat diffusion (6 times lower than water).
- Paraffine wax has a low melting point (55°).
- When the oil is added, the paraffin will remain at a temperature of 40° to 44°C.
- This low specific heat will enhance the patient to tolerate heat from the paraffine better than from water of the same temperature.

Self insulator: • It gives moist heat : there is a layer between the skin and the wax producing heat and sweating which does not evaporate. After removal the heated part cools quickly by evaporation.

It is analgesic: This insulating layer keeps the heat and is effective in relief of pain.

PWB unit Container is made up of enamelled baths or stainless steel and fiberglass shell. Container contains wax and paraffin oil in the prescribed ratio. Thermostat keeps the temperature adjusted with knob. Thermostat pilot's lamp indicates whether thermostat is on or off. Power pilot's lamp show whether power is on or off. Lid cover container and caster allow the paraffin wax bath container to be move from place to place.

Methods of Application

Dipping and Wrap: most common method. Involves placing the body part to be treated in a paraffin bath, followed by removing it and allowing the paraffin to cool and harden. Approximately 7 to 12 dips are done followed by wrapping in wax paper or plastic, which is covered by towels or insulated mitts. Application time is 20 to 30 minutes or till wax cools.

Methods of Application Dipping and Wrap:

Immersion: Dip once for having a glove Then immerse for 15 to 20 min. Never immerse at first for a long time without making a glove dry before to have insulations.

Direct pouring method: The molten Wax is directly poured by a mug or utensil on the part to be treated and wrapped around by a towel. The wax is allowed to solidify for about 10-20 minutes. Several (4-6) layers can be made over the body tissues.

Toweling or bandaging method: A towel or a roll of bandage is immersed in molten paraffin wax and wrapped around the body part. Several layers can be made over the body part. This method is preferably used for treating proximal parts of the body.

Brushing method: Coats of wax are applied to the area with a paint brush using even and rapid strokes. The area is then wrapped with towel for 10-20 minutes and after this time, paraffin wax is removed and discarded.