

# Diploma in Pharmacy 1<sup>st</sup> Year

## Human Anatomy & Physiology Practical

*To determine the body temperature of a subject.*

### **Aim:**

To determine the body temperature of a subject.

### **Reference :**

Dr. Gupta G.D , Dr. Sharma Shailesh , Dr. Sharma Rahul Kumar ,“Practical Manual of Human Anatomy and Physiology” Published by Nirali Prakashan , Pg.No 85 – 89

### **Apparatus Required:**

Mercury thermometer

### **Theory :**

Normal body temperature in a healthy adult ranges from 97.8 degrees F (or Fahrenheit, 36.5 degrees C or Celsius) to 99 degrees F (37.2 degrees C). This range could vary with gender, recent activity, food and fluid consumption, time of day, and the stage of menstrual cycle (in women).

Mercury thermometer has a glass tube filled with mercury and marked with a standard temperature scale. With changes in temperature, the mercury expands and contracts, and the temperature can be read from the scale. Mercury thermometer is used in households, laboratory experiments, and industrial applications to determine body, liquid  
Figure 38: Mercury Thermometer and vapour temperature.

Mercury is the only metal that remains in liquid state at room temperature. It is used in thermometers due to its high coefficient of expansion, which makes it easy to move in the thermometer as per the temperature. Also due

to its high boiling point, mercury is suitable to measure higher temperatures.

### **Procedure**

- 1) The mercury in a glass thermometer should be shaken before placing it under the tongue.
- 2) Then the bulb should be placed at the end of the thermometer under the tongue and the person is instructed to close his mouth and breathe through his nose.
- 3) Leave the thermometer under the tongue for at least 2 minute and take the reading

**Result:** The body temperature by own is 96.4°F