Hematocrit (Hct) or Packed Cell Volume (PCV)

Ratio (in percent) of packed red cells in total whole blood(%)

Normal values:

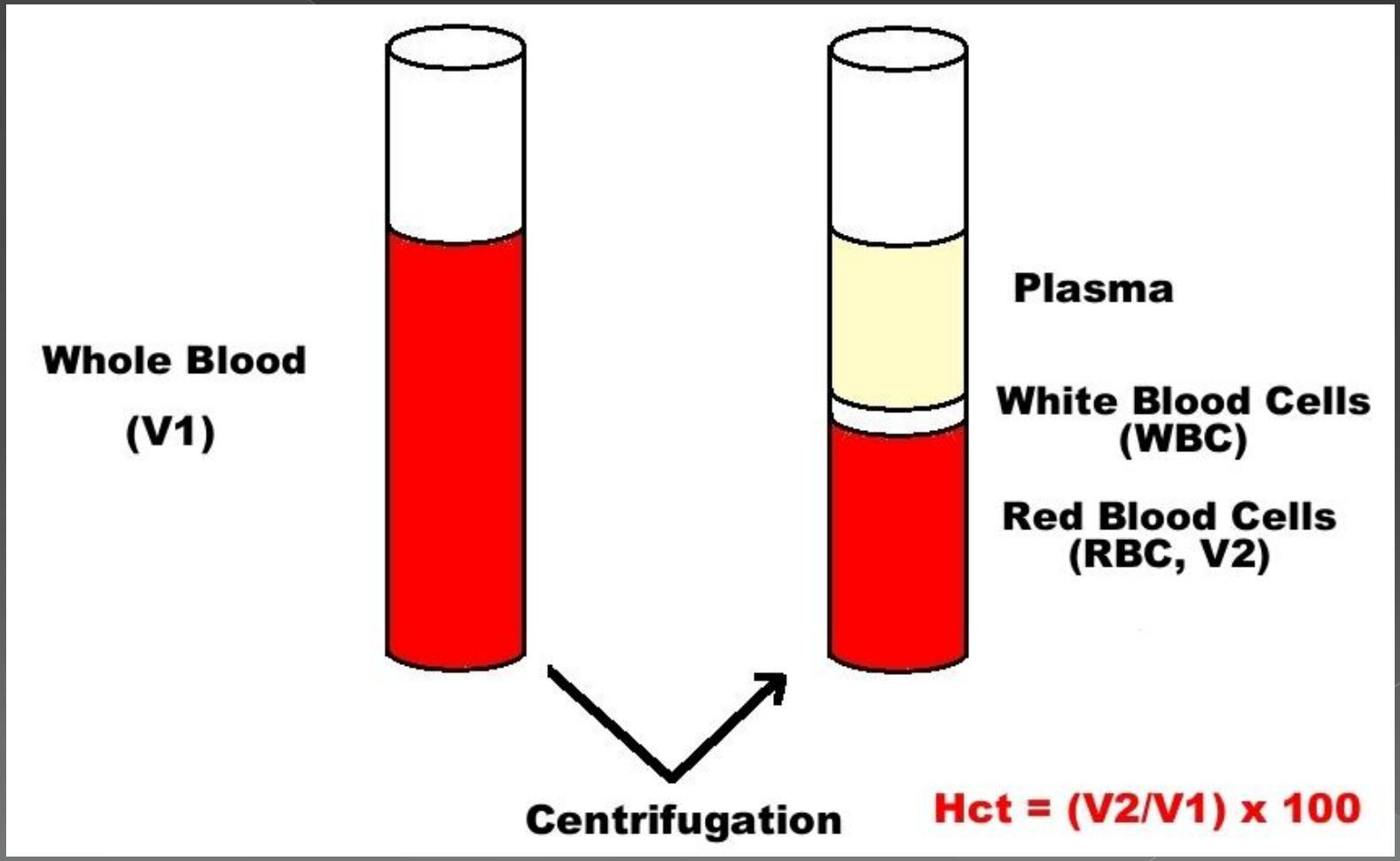
Men: 40- 52% Women: 37-47% Newborn: 50- 62%

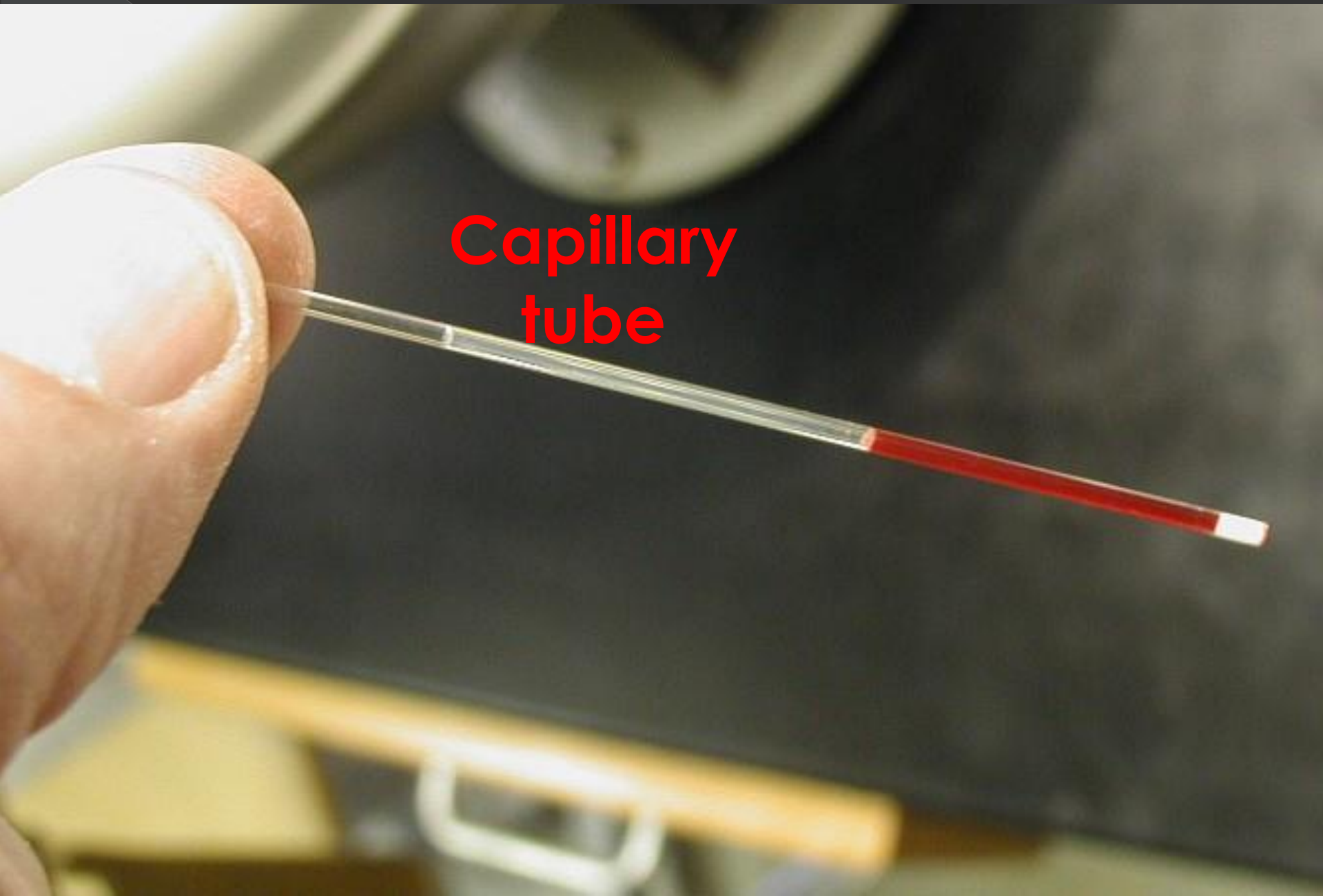
Capillary Haematocrit Tube

Procedure:

1. **Mix the blood sample thoroughly.**
2. **Fill blood into capillary tubes for up to 3/4 of its length.**
3. **Seal bottom of the tube with oily-clay sealer.**
4. **Clean outside the tube with tissue paper nicely.**
5. **Place the tubes in to the rotor, adjust the bottom of the tube to close to the outer edge of the rotor.**
6. **Close inner lid tightly, then close the outer lid.**
7. **Centrifuge for 5 minutes.**
8. **Open the lids after the roter was completely stopped.**
9. **Read the value with Hct reader or ruler.**

HCT


Whole Blood
(V1)
Plasma
White Blood Cells
(WBC)
Red Blood Cells
(RBC, V2)
Centrifugation
Hct = (V2/V1) x 100


Capillary
tube

Red Blood cell Indices

- Mean Corpuscular Volume (MCV)

  (μm^3)

- Mean Corpuscular Hemoglobin (MCH)

  (pg)

- Mean Corpuscular Hemoglobin Concentration (MCHC)

  (% or g/dL)

Blood Indices (cont.)

MCV = Hct (%) x 10 / RBC (in millions / cu.mm.)

normal range = 74 - 97 (μ^3)

MCH = Hb (g/dL) x 10 / RBC (in million / cu.mm.)

normal range = 27 - 32 (pg)

MCHC = Hb (g/dL) x 100 / Hct (%)

normal range = 30 - 36 (% or g/dL)

Thank You For Your Attention