

Lab instructions: Micro-hematocrit lab

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Aims: measure your blood hematocrit, estimate the density of RBC

Watch the video!

Read the instructions to the end before attempting.

- 1 - Open the envelope
- 2 - Wash your hand with hot water (helps the blood circulation)
- 3 - Clean your finger with the alcohol wipe
- 4 - Prick your finger with the sterile single-use device
- 5 - Fill the micro-hematocrit tube (tube should be horizontal); the capillary force will make the blood flow into the micro-hematocrit tube
- 6 - Seal the tube vertically with the paste
- 7 - Wait a couple of hours by letting the tube sit vertically or if you don't have the patience to wait, you can build your own "[Paperfuge](#)"

Tutorial for the fabrication here: [DIY Centrifuge | ThinkTac](#)

- 8 - Measure the hematocrit using the ruler provided or a regular ruler
- 9 - Assuming RBCs are spherical and rigid, with equivalent diameter of $4.5 \mu\text{m}$, assuming 2 hrs is needed to sediment 3 cm, and plasma characteristics (viscosity, density) are the same as water. Estimate the density of RBC. Discuss your findings.

Submit a brief **pdf** report.