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Hematocrit

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Measuring the Hematocrit

One of the most useful tests that we can run is the hematocrit. The hematocrit is the percent of blood comprised of RBCs. The packed cell volume is the most common method to determine the hematocrit. The PCV is obtained when anti-coagulated blood is centrifuged. The red blood cells become packed at the bottom of the tube, while the plasma is left at the top as a clear liquid. Serum contains all of the plasma proteins except fibrinogen, Factor V, and Factor VIII, which are consumed when the clot forms. They thin greyish layer directly on top of the red blood cells is call the "buffy coat, which consists of the white blood cells and part of the platelets. Most of the platelets are found in the plasma.

To run a hematocrit you need to use a centrifuge specifically designed for hematocrits or a regular centrifuge that has an adapter that can hold the hematocrit tubes. The hematocrit should be spun at 12,000 rpms. If you don't have access to a lab or a centrifuge there are two Do-It-Yourself versions that you can make.

