

What is Dry Hematology?

I notice that Drucker Diagnostics offers a Dry Hematology analyzer. What is Dry Hematology? Don't all hematology analyzers use the same basic methodology?

Dry Hematology, which is unique to the Drucker Diagnostics hematology analyzers, performs a complete blood count without the addition of any diluent or liquid reagents. Instead Dry Hematology uses only a precision sample collection tube that is internally dry coated with all necessary reagents, which include Acridine Orange Fluorochrome stain and anticoagulants.

When the hematocrit sample collection tube is filled with approximately 65 microliters of either capillary or venous blood, the dry reagents in the tube mix with the blood sample. A precision mechanical expander (float) in the tube expands the Buffy Coat (white blood cells and platelets) and allows the cells to be digitally imaged. Blue LED's illuminate the sample, causing the stained bands of cells within the tube to fluoresce different colors. The fluorescent light then travels to the camera, where the digital image is captured and the cell counts, hematocrit, and hemoglobin are measured.

What are the advantages of Dry Hematology?

1. Simple to use - Simply fill a 65 uL hematocrit tube, cap, and place in the analyzer. The sample stays contained in the hematocrit tube during imaging, so the complete tube can be placed in a sharps container when the analysis has finished.
2. Portability – The system can easily be transported from one location to another. Simply plug in, and the system will run analytical quality control to confirm functionality.
3. Long term storage - Dry Hematology allows for room temperature long term storage, easy start-up, and easy shut-down without the need to run cleaning cycles that wastes additional reagents. Each test uses an individually packaged disposable with a shelf life of 12 – 18 months.
4. No maintenance or calibration - Dry Hematology analyzers do not require any routine maintenance and there is no need to re-calibrate the device.
5. Analytical Quality Control: Dry Hematology systems have multiple built-in analytical quality control (QC) checks that maintain the overall system integrity and the quality of the test results.

Dry Hematology is a unique technology that provides simple and reliable hematology from a finger stick or venous sample. It is ideal for hospital ED stat labs, infectious disease containment labs, urgent care clinics, pediatric office laboratories, cruise ship clinics, embassy clinics, emergency and disaster response units, military uses, and as a backup system for larger laboratories.

