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**Lab Dept:** Hematology

**Test Name:** CBC, PLATELET, WITHOUT DIFFERENTIAL

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***General Information***

**Lab Order Codes:** ABC

**Synonyms:** Hemogram; Blood Cell Count; Automated Cell Count; CBC and Platelet Count

**CPT Codes:** 85027 – complete (CBC) automated (Hgb, Hct, RBC, WBC, and PLT count)

**Test Includes:** WBC, RBC, Hct, Hgb, MCV, MCH, MCHC, RDW, Platelet Count, MPV

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***Logistics***

**Test Indications:** A screen for the evaluation of anemia, leukemia, reaction to inflammation and infection, state of hydration, polycythemia, hemolytic disease of the newborn, and ABO incompatibilities.

**Lab Testing Sections:** Hematology

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 4 hours

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Whole blood

**Container:** EDTA Lavender top tube, EDTA Lavender Microtainer®

**Draw Volume:** Lavender (EDTA) 2 mL Vacutainer tube: Minimum fill volume of **1 mL** is required. Allow the tube to fill until the vacuum is exhausted, and blood flow ceases.

Lavender (EDTA) Microtainer® tube: Minimum of **0.5 mL** is required. To be used for neonates, collected volumes <1.0 mL, or when a capillary (skin puncture) collection is required.

**Processed Volume:** Minimum: 0.5 mL blood

**Stability:** Optimal when run within in 4 hours of collection.  
Stable 48 hours refrigerated for CBC parameters.

**Collection:** Routine venipuncture or blood collection

**Special Processing:** Lab Staff: Test is run on whole blood, **Do Not** centrifuge

**Patient Preparation:** None

**Sample Rejection:** Improper tube; clotted sample; underfilled tube; overfilled tube; mislabeled or unlabeled specimens

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***Interpretive***

**Reference Range:** Age and Sex Dependent; [CBC Reference Value Table](#)

<b>Critical Values:</b>	<b>Test Name:</b>	<b>Value</b>	<b>Hem/Onc Clinics</b>
	<b>Hematocrit:</b>	<21% or >65%	None
	<b>Hemoglobin:</b>	<7 gm/dL	<5.0 gm/dL
	<b>Platelets:</b>	<50,000 or >1,000,000	<5,000
	<b>WBC:</b>	Newborn: <5,000 or >35,000	None
		Others: <2,000 or >25,000	None

**Limitations:** Characteristics that may affect results include: lipemia (or patients receiving lipids), icterus, and cold agglutinins.

**Methodology:** A combination of techniques, including fluorescence flow cytometry, hydrodynamic focusing, impedance, and non-cyanide SLS hemoglobin measurement.

**References:** Nathan DG, et al (1987) Hematology of Infancy and Childhood, WB Saunders pp1680, 1688

Normal Reference Range Study (1994) Children's Hospitals and Clinics, Minneapolis and St Paul, MN, Hematology Laboratory

**Updates:**

9/26/2018: Lipemic specimen information updated.

4/1/2025: Updated methodology, and volume requirements.