
Lab Dept: Hematology

Test Name: EOSINOPHILS, TOTAL COUNT

General Information

Lab Order Codes: EOCT

Synonyms: Total Eos; Eo Count; Absolute Number of Eosinophils

CPT Codes: 85999 – Unlisted Hematology

Test Includes: The total eosinophil count in blood reported in k/uL

Logistics

Test Indications: Useful in determining presence of eosinopenia or eosinophilia in the peripheral blood which can be present in a variety of conditions: adrenal response to ACTH, allergic reactions, parasitic infections, skin disorders, hyper-eosinophilic syndromes, neoplastic diseases and other miscellaneous disease states

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: **Do Not** collect specimen while lipids are being infused.

Specimen

Specimen Type: Whole blood

Container: EDTA Lavender top tube or 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: Same as Draw Volume

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| Collection: | Fill to mark on tube or Microtainer®. Mix well by gentle inversion. |
| Special Processing: | Lab Staff: Do Not centrifuge. Process as whole blood. |
| Patient Preparation: | None |
| Sample Rejection: | Improper tube; clotted sample; underfilled tube; mislabeled or unlabeled specimen |

Interpretive

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| Reference Range: | 0.050 – .250 k/uL Eosinopenia: <0.050 k/uL Eosinophilia: >.450 k/uL A definite diurnal variation occurs with a mid-morning nadir, approximately 20% less than the 0800 level; a maximal nocturnal peak, approximately 30% greater than the 0800 level. This diurnal variation is not observed in patients with adrenal insufficiency. |
| Critical Values: | N/A |
| Limitations: | N/A |
| Methodology: | A combination of techniques, including fluorescence flow cytometry, hydrodynamic focusing, impedance, and non-cyanide SLS hemoglobin measurement – OR manual differential. |
| References: | Davidson, Henry, Todd-Sanford (1979) Clinical Diagnosis by Laboratory Methods, 15 th ed Harmening DH (1997) Clinical Hematology and Fundamentals of Hemostasis, 3 rd ed Oski and Nathan (1998) Hematology of Infancy and Childhood, 5 th ed |
| References: | 5/5/2021: Updated CPT code 4/2/2025: changed reporting units to k/uL and updated draw volume verbiage for consistency with all Heme testing. |