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**Lab Dept:** Hematology

**Test Name:** EOSINOPHILS, TOTAL COUNT

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***General Information***

**Lab Order Codes:** EOCT

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

**CPT Codes:** 85021 – Hemogram, automated  
85008 – Manual blood smear examination with differential parameters

**Test Includes:** The total eosinophil count in blood reported in Eos/mm<sup>3</sup>

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***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, hypereosinophilic 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.

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***Specimen***

**Specimen Type:** Whole blood

**Container:** Lavender (EDTA) top tube or Lavender (EDTA) Microtainer®

**Draw Volume:** 2 mL blood in a 2 mL Lavender top tube  
**OR**  
0.5 mL in an EDTA Microtainer®

**Processed Volume:** Same as Draw Volume

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

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### ***Interpretive***

<b>Reference Range:</b>	50 – 250 Eos/mm <sup>3</sup>  Eosinopenia: <50 Eos/mm <sup>3</sup>  Eosinophilia: >450 Eos/mm <sup>3</sup>  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.
<b>Critical Values:</b>	N/A
<b>Limitations:</b>	Estimates of eosinophil numbers based on differential counts and stained blood smears are subject to error because the natural stickiness or adherence of eosinophils prevents even distribution.
<b>Methodology:</b>	Automated cell counter with automated or manual differential.
<b>References:</b>	Davidson, Henry, Todd-Sanford (1979) Clinical Diagnosis by Laboratory Methods, 15 <sup>th</sup> ed  Harmening DH (1997) Clinical Hematology and Fundamentals of Hemostasis, 3 <sup>rd</sup> ed  Oski and Nathan (1998) Hematology of Infancy and Childhood, 5 <sup>th</sup> ed