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**Lab Dept:** Chemistry

**Test Name:** CEA

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***General Information***

**Lab Order Codes:** CEAS

**Synonyms:** Carcinoembryonic antigen

**CPT Codes:** 82378 – Carcinoembryonic antigen (CEA)

**Test Includes:** N/A

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***Logistics***

**Test Indications:** Monitoring colorectal cancer and selected other cancers such as medullary thyroid carcinoma. May be useful in assessing the effectiveness of chemotherapy or radiation treatment. CEA levels are not useful in screening the general population for undetected cancers.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Medical Laboratories (Test: CEA)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 - 3 days; testing performed daily Monday - Saturday

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

**Container:** SST (Marble, gold or red) tube

**Draw Volume:** 1.8 mL (Minimum: 1.5 mL) blood

**Processed Volume:** 0.6 mL (Minimum: 0.5 mL) serum

**Collection:** Routine venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship and at refrigerated temperatures. Forward promptly.

**Patient Preparation:** None

**Sample Rejection:** Specimens other than serum; gross hemolysis

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### ***Interpretive***

**Reference Range:** ≤3 ng/mL (Smoking may increase values)

Serum markers are not specific for malignancy and values may vary by method.

**Critical Values:** N/A

**Limitations:** The concentration of CEA in serum should not be used to screen asymptomatic individuals for neoplastic disease, and the diagnostic efficacy of CEA measurements in high-risk groups has not been established.

CEA values are method-dependent; therefore, the same method should be used to serially monitor patients.

Do not interpret serum CEA levels as absolute evidence of the presence or the absence of malignant disease. Use serum CEA in conjunction with information from the clinical evaluation of the patient and other diagnostic procedures.

**Methodology:** Immunoenzymatic Assay

**References:** [Mayo Medical Laboratories](#) December 2017

**Updates:** 12/6/2017: Updated collection container.