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**Lab Dept:** Urine/Stool

**Test Name:** UREA NITROGEN, 24 HOUR URINE

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***General Information***

**Lab Order Codes:** UUNQ

**Synonyms:** BUN, Urine; Urea Nitrogen, 24 hour urine

**CPT Codes:** 84540 – Urea nitrogen; urine  
81050 – Volume measurement for timed specimen

**Test Includes:** Urea nitrogen concentration in mg/dL and g/collection

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***Logistics***

**Test Indications:**

- The urea nitrogen level, along with creatinine, is used to evaluate kidney function. It is used to monitor patients with kidney failure or those receiving dialysis therapy.
- Assessment of protein intake and/or nitrogen balance.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Clinic Laboratories (Mayo test: URAU)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1-2 days

**Special Instructions:** Submit an entire 24-hour urine collection. No preservative. Refrigerate specimen during and after collection.

**Note:** Starting and ending times of collection are required for a timed urine collection and must be documented electronically or on the proper request form.

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***Specimen***

**Specimen Type:** Urine, 24 hour collection  
**A 24 hour collection is required.**

**Container:** Plastic leak-proof container (No preservative). Urine GUARD® collection container is preferred for a timed urine sample.

<b>Draw Volume:</b>	Submit an entire 24-hour urine collection
<b>Processed Volume:</b>	4 mL (Minimum: 1 mL) urine from a well-mixed 24 hour collection
<b>Collection:</b>	For timed urine collections, empty the bladder, discard the voided sample, and note the start time. Collect all urine voided for the specified time period. At the end of the period, note the finishing time, add the last voided sample to the container by emptying the bladder. Bring the refrigerated container to the lab. Make sure all specimens submitted to the laboratory are properly labeled with the patient's name, medical record number and date of birth.
<b>Special Processing:</b>	Lab Staff: Measure total volume of specimen submitted and record during specimen decant. Order code PVSO to record the Urine Volume and Collection Duration as 24. Store and ship refrigerated.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimens; collection <24 hours

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### ***Interpretive***

**Reference Range:** 10 – 35 g/24 hours

**Interpretation:** Because multiple factors (glomerular filtration rate, dietary protein intake, protein catabolic rate, hydration state, etc) can independently affect the urinary excretion of urea, all of these factors must be taken into account when interpreting the results.

**Critical Values:** N/A

**Limitations:** N/A

**Methodology:** Kinetic UV Assay

**References:** [Mayo Clinic Laboratory](#) October 2020