



# THE UNIVERSITY OF KANSAS HEALTH SYSTEM

Name: Jess Ann Biviano | DOB: 2/26/1986 | MRN: 1413312 | PCP: Erik Way, MD | Legal Name: Jessica Ann Biviano

## CORTISOL FREE, URINE (24 HOUR OR RANDOM)

Collected on Jul 28, 2025 6:50 AM

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Lauren K Bonci, APRN-NP Aug 1, 10:05 AM

Hey Jess! Urine creatinine level was elevated once again. Your kidney function tests were all normal on blood work, as were your last thyroid tests. Here's what I found for potential causes of this:

Elevated 24-hour urine creatinine with normal serum kidney function is most commonly due to increased creatinine generation or excretion rather than renal pathology. The most likely causes include:

1. Large muscle mass or high lean body weight: Creatinine production is proportional to muscle mass, so individuals with greater muscle mass (e.g., bodybuilders) will have higher urinary creatinine excretion even with normal renal function. [1]
2. High-protein or high-meat diet: Recent ingestion of large amounts of meat or protein increases creatinine generation and excretion. [2]
3. Creatine supplementation: Use of creatine-containing supplements, common in athletes, increases creatinine production and urinary excretion. [3]
4. Strenuous or prolonged exercise: Intense physical activity can transiently increase muscle breakdown and creatinine excretion. [4]
5. Prolonged or inaccurate urine collection: Over-collection (e.g., >24 hours or inclusion of extra voids) can artifactually elevate measured 24-hour creatinine. [5]
6. Pregnancy or increased muscle turnover states: Physiological changes in pregnancy or other states of increased muscle metabolism can increase creatinine excretion. [6]
7. Anabolic steroid use: Increases muscle mass and creatinine generation.

I wonder if any of the fertility medications could be the cause? Or are you consuming a lot of protein? Not an urgent concern with your normal kidney function. Dr. Gillenwater can discuss with you further at your follow up in October.

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## Results

**HOURS COLLECTED**

hr

Value

**24**

Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation.

**TOTAL VOLUME**

mL

Value

**1750****CORTISOL, URINE FREE - PER VOLUME**

ug/L

Value

**8.99****CORTISOL, URINE FREE - RATIO TO CRT**

ug/g CRT

Value

**7.75**

Reference Interval: Cortisol ug/g crt

Female

Prepubertal: Less than 25 ug/g crt  
18 years and older: Less than 24 ug/g crt  
Pregnancy: Less than 59 ug/g crt

Male

Prepubertal: Less than 25 ug/g crt  
18 years and older: Less than 32 ug/g crt

**CORTISOL, URINE FREE - PER 24H**Normal value:  $\leq 45.0$  ug/d

Value

**15.7****Creatinine, Ur**

mg/dL

Value

**116****CREATININE, URINE - PER 24H**

Normal value: 700 - 1600 mg/d

Value

**2030**

High

**Free Cortisol, 24 HR**

Value

**See Note**

INTERPRETIVE INFORMATION: Cortisol Urine Free by LC-MS/MS

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory ([aruplab.com](https://aruplab.com)).

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Performed By: ARUP Laboratories

500 Chipeta Way

Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

CLIA Number: 46D0523979

Ordering provider: Lauren K Bonci, APRN-NP

Collection date: Jul 28, 2025 6:50 AM

Specimens: Urine (Clean Catch)

Result date: Jul 31, 2025 11:44 PM

Result status: Final

Resulting lab:

ARUP LAB SALT LAKE CITY

500 Chipeta Way

Salt Lake City UT 84108

801-581-2121

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