

**TEST CHANGE**

**5-Hydroxyindoleacetic Acid (HIAA), Urine**

0080420, HIAA

**Specimen Requirements:**

**Patient Preparation:** Patients should abstain, if possible, from medications, over-the-counter drugs, and herbal remedies for at least 72 hours prior to the test. Foods rich in serotonin (avocados, bananas, eggplant, pineapple, plums, tomatoes, walnuts) and medications that may affect metabolism of serotonin must be avoided at least 72 hours before and during collection of urine for HIAA.

**Collect:** 24-hour or random urine. Refrigerate 24-hour specimens during collection.

**Specimen Preparation:** Transfer 4 mL aliquot from a well-mixed 24-hour or random collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Any sample except urine.

**Remarks:** Please see Note for a more comprehensive list of dietary restrictions.

**Stability:** Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 months

**Methodology:** Quantitative High Performance Liquid Chromatography - Tandem Mass Spectrometry

**Performed:** Sun-Sat

**Reported:** 1-~~5~~4 days

**Note:** Foods and medications associated with altered urinary HIAA results: Decreased HIAA: Aspirin, chlorpromazine (Thorazine), corticotropin, dihydroxyphenylacetic acid, alcohol, gentisic acid, homogentisic acid, hydrazine derivatives, imipramine (Tofranil(R)), isocarboxazid (Marplan), keto acids, levodopa, MAO inhibitors, methenamine, methyl dopa (Aldomet(R)), perchlorperazine, phenothiazines (Compazine(R)), promazine, promethazine (Mepergan(R)). Increased HIAA: Acetaminophen, acetanilide, caffeine, coumaric acid, diazepam

(Valium(R)), ephedrine, fluorouracil, glycerol guaiacolate (Guaifenesin), melphalan (Alkeran(R)), mephenesin, methamphetamine (Desoxyn), methocarbamol (Robaxin(R)), naproxen, nicotine, phenacetin, phenmetrazine, phenobarbital, phentolamine, rauwolfia, reserpine.

CPT Codes: 83497

New York DOH Approval Status: This test is New York DOH approved.

**Interpretive Data:**

5-Hydroxyindoleacetic acid (5-HIAA) results are expressed as a ratio to creatinine excretion (mg/g CRT). No reference interval is available for results reported in units of mg/L. Increased urine 5-HIAA concentration is common and may be the result of improper specimen collection, consumption of serotonin containing foods or dietary supplements, drug interference, or malabsorption syndromes. Significant elevation (ten times the upper reference limit) of urine 5-HIAA may indicate the presence of a carcinoid tumor.

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.

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.

**Reference Interval:**

Test Number	Components	Reference Interval		
	5-HIAA Urine - per 24h	0.0-15.0 mg/d		
	5-HIAA Urine - per volume	The HIAA-to-creatinine ratio will be reported whenever the urine collection is random or other than 24 hours, or the urine volume is less than 400 mL/24 hours. 0-14 mg/g crt		
	Creatinine, Urine - per 24h			
		Age	Male (mg/d)	Female (mg/d)
		3-8 years	140-700	140-700
		9-12 years	300-1300	300-1300
		13-17 years	500-2300	400-1600
		18-50 years	1000-2500	700-1600
		51-80 years	800-2100	500-1400
		81 years and older	600-2000	400-1300



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and its Department of Pathology*

Effective Date: **February 20, 2024**