DHEA (Dehydroepiandrosterone)

410X
38954X

Clinical Use

- Marker of adrenal androgen production
- Assess adrenal reserve after ACTH stimulation

Reference Range

Serum (410X)		ng/dL
Men		180-1250
Women		130-980
Pregnancy		135-810
Post-ACTH stimulation		60 min
Men and women		545-1845
Children*		
Premature infants (31-35 wk)		≤3343
Term infants (1st wk of life)		≤761
ACTH stimulation	Baseline ng/dL	60 min ng/dL
<1 y	26-585	18-1455
1-5 y	9-42	21-98
6-12 y	11-155	34-320
Tanner II-III		
Males	25-300	62-390
Females	69-605	95-885
Tanner IV-V		
Males	100-400	195-510
Females	165-690	325-1460

Urine (38954X)	µg/24-h	µg/g/creat
DHEA, Adults	21-2710	
DHEA, Men		24-1640
DHEA, Women		13-730
Creatinine		g/24-h
3-8 y		0.11-0.68
9-12 y		0.17-1.41
13-17 y		0.29-1.87
Adults		0.63-2.50

*Pediatric data from *J Clin Endocrinol Metab.* 1991;73:674-686.

Interpretive Information

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- Adrenal tumors
- Cushing's disease
- Congenital adrenal hyperplasia
- Premature adrenarche

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- Addison's disease
- Anorexia nervosa

Clinical Background

Dehydroepiandrosterone (DHEA) is a weak androgen synthesized by the adrenal cortex. It has a short half-life and is usually converted to dehydroepiandrosterone sulfate.

Excessive DHEA secretion can produce acne, hirsutism, and virilization via conversion to testosterone.

Method

Serum (410X)

- Extraction, chromatography, radioimmunoassay (RIA)
- Analytical sensitivity: 3 ng/dL

Urine (38954X)

- Gas chromatography, mass spectrophotometry (GC/MS)

Specimen Requirements

Serum (410X)

1 mL refrigerated serum

0.3 mL minimum

No additive red top preferred

SST red top acceptable

Overnight fasting is preferred.

Specify age and sex on test request form.

Urine (38954X)

5 mL frozen aliquot of a 24-h urine

2.1 mL minimum

Refrigerate during collection; do not use a preservative. Record 24-h volume on vial and request form.