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**Lab Dept:** Chemistry

**Test Name:** DHEA-S

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***General Information***

**Lab Order Codes:** DHES

**Synonyms:** Dehydroepiandrosterone Sulfate; DHEA Sulfate

**CPT Codes:** 82627 - Dehydroepiandrosterone Sulfate

**Test Includes:** DHEA-S level reported in mcg/dL.

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***Logistics***

**Test Indications:** Diagnosis and differential diagnosis of hyperandrogenism (in conjunction with measurements of other sex steroids). An adjunct in the diagnosis of congenital adrenal hyperplasia. Diagnosis and differential diagnosis of premature adrenarche.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Clinic Laboratories (Mayo test: DHES1)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 - 3 days, test set up Monday - Saturday

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

**Container:** SST (Gold, marble or red)

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

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

**Collection:** Routine blood collection

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

**Patient Preparation:** None

**Sample Rejection:** Gross hemolysis; unlabeled or mislabeled specimens

**Interpretive**

**Reference Range:**

<b>Newborns (Male &amp; Female):</b>				
1-14 days: DHEA-S levels in newborns are very elevated at birth but will fall to prepubertal levels within a few days.				
<b>Puberty:</b>				
	MALE		FEMALE	
Tanner Stage	Age	Range (mcg/dL)	Age	Range (mcg/dL)
1	>14 days	11 - 20	>14 days	16 - 96
2	11.5 years	14 - 323	10.5	22 - 184
3	13.6 years	5.5 - 312	11.6	11 - 296
4	15.1 years	29 - 412	12.3	17 - 343
5	18.0	104 - 468	14.5	57 - 395
<b>Adults:</b>				
	MALE		FEMALE	
Age	Range (mcg/dL)		Range (mcg/dL)	
18 – 30 years	105 - 728		83 - 377	
31 – 40 years	57 - 522		45 - 295	
41 – 50 years	34 - 395		27 - 240	
51 – 60 years	20 - 299		16 - 195	
61 – 70 years	12 - 227		9.7 - 159	

≥71 years	6.6 - 162	5.3 - 124
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**Critical Values:**

N/A

**Limitations:**

There are currently no established guidelines for dehydro-epiandrosterone sulfate (DHEA-S) replacement or supplementation therapy or its biochemical monitoring. In most settings, the value of DHEA-S therapy is doubtful. However, if DHEA-S therapy is used, then it seems prudent to avoid overtreatment, with its associated hyper-androgenic effects. These are particularly likely to occur in postmenopausal females if DHEA-S levels approach or exceed the upper reference range. Most supplements contain dehydro-epiandrosterone (DHEA), but the in vivo conversion to DHEA-S allows monitoring to either DHEA or DHEA-S.

**Methodology:**

Immunoenzymatic assay

**References:**[Mayo Clinic Laboratories](#) (August 2021)**Updates:**

8/23/2021: Moved from Esoterix to Mayo.