Lab Dept: Chemistry  
Test Name: DHEA-S  

**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.

**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

**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

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**Interpretive**

**Reference Range:**

**Newborns (Male & Female):**

1-14 days: DHEA-S levels in newborns are very elevated at birth but will fall to prepubertal levels within a few days.

<table>
<thead>
<tr>
<th>Tanner Stage</th>
<th>MALE Age</th>
<th>Range (mcg/dL)</th>
<th>FEMALE Age</th>
<th>Range (mcg/dL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt;14 days</td>
<td>11 - 20</td>
<td>&gt;14 days</td>
<td>16 - 96</td>
</tr>
<tr>
<td>2</td>
<td>11.5 years</td>
<td>14 - 323</td>
<td>10.5</td>
<td>22 - 184</td>
</tr>
<tr>
<td>3</td>
<td>13.6 years</td>
<td>5.5 - 312</td>
<td>11.6</td>
<td>11 - 296</td>
</tr>
<tr>
<td>4</td>
<td>15.1 years</td>
<td>29 - 412</td>
<td>12.3</td>
<td>17 - 343</td>
</tr>
<tr>
<td>5</td>
<td>18.0</td>
<td>104 - 468</td>
<td>14.5</td>
<td>57 - 395</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adults: MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Range (mcg/dL)</td>
</tr>
<tr>
<td>18 – 30 years</td>
<td>105 - 728</td>
</tr>
<tr>
<td>31 – 40 years</td>
<td>57 - 522</td>
</tr>
<tr>
<td>41 – 50 years</td>
<td>34 - 395</td>
</tr>
<tr>
<td>51 – 60 years</td>
<td>20 - 299</td>
</tr>
<tr>
<td>61 – 70 years</td>
<td>12 - 227</td>
</tr>
</tbody>
</table>
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 hyperandrogenic effects. These are particularly likely to occur in postmenopausal females if DHEA-S levels approach or exceed the upper reference range. Most supplements contain dehydroepiandrosterone (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.