

## **Abstract**

Dehydroepiandrosterone (DHEA) and its sulfated conjugate DHEA-S are the two steroids synthesized in highest concentrations (DHEA, 6-8 mg / day; DHEA-S, 15-18 mg / day) by the adrenal cortex. The pattern of secretion is characteristic and age-related; concentration of DHEA in serum peaks at adult stage and declines thereafter. Based on this observation, DHEA is considered to be the YOUTH HORMONE. DHEA is freely available without prescription and is being currently sold in health food stores in U.S.A. A number of studies have concentrated on the role of exogenous DHEA in health, disease, and human well being. However, its complete physiological role is poorly understood. Hence in the present study we evaluated effects of DHEA treatment on energy metabolism in brain and liver mitochondria from rats of different age groups. Result of present study reveals that DHEA treatment positively influenced mitochondrial respiration rates and maturation in developmental and old rats. Effects of DHEA were dose-dependent, age-dependent and tissue-specific. It also altered lipid/phospholipid profile of mitochondria.