

Abstract

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Anxiety and adipose essential fatty acid precursors for prostaglandin E1 and E2.

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OBJECTIVE: The purpose of the present study was to investigate the relation state and trait anxiety and adipose tissue essential fatty acid precursors for prostaglandins E1 and E2.

METHODS: The sample consisted of 144 male and female Cretan adults, 23 to 69 years of age. Anthropometric and arterial blood pressure measurements were taken, and adipose tissue samples as well as data concerning general health habits were collected. Dietary data were collected using the weekly food frequency questionnaire and the 24-hour dietary recall method, while state and trait anxiety was assessed through the use of the Spielberger State-Trait Anxiety Inventory (STAI) and the Zung anxiety scale.

RESULTS: State anxiety (STAI) related positively with sex ($p < 0.0003$) and negatively with adipose fat myristic acid (C14:0) ($p < 0.004$). Similarly, Zung trait anxiety related positively with sex ($p < 0.0001$) and negatively with adipose tissue myristic acid (C14:0) ($p < 0.04$). Spielberger trait anxiety related positively with adipose (LA + ALA)/(AA + EPA) ratio ($p < 0.0002$) and negatively with (C14:0) ($p < 0.02$) and dietary monounsaturated fat ($p < 0.03$).

CONCLUSION: It appears that the positive relation between trait anxiety and adipose (LA + ALA)/(AA + EPA) ratio may stem from the inhibiting role of catecholamines on delta 6 and delta 5 desaturases.

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