

ISOFLAVONE EFFECTS ON COGNITION IN MENOPAUSE

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There are limited and conflicting reports concerning the effects of isoflavones on human cognitive function. Isoflavones are phytoestrogen constituents of soy with weak estrogenic effects, suggesting a possible mechanism of neural action. We sought to investigate effects of isoflavone supplementation on cognition in postmenopausal women with age-related memory decline, marked by working memory and secondary memory deficits and increased risk for dementia. In this interim analysis of data from a continuing randomized, double-blind, placebo controlled trial, we examined effects of 16 weeks of isoflavone supplementation on an inhibitory control task and on mood in 50 postmenopausal women with symptoms of memory decline. There was no difference between the active supplement and placebo groups prior to treatment with respect to age (63.8 v 62.9 years), education (14.1 v 14.2 years), IQ estimate (99.6 v 102.3), depression (9.6 v 8.9), or time since last menstrual cycle (204 v 179 months). However, there were significant effects of isoflavone supplementation indicating improved response accuracy ($F = 4.04$, $p = .05$) and increased response latency ($F = 3.88$, $p = .05$) on the working memory task. Also, there was a trend toward fewer depressive symptoms among those receiving the active supplement ($F = 3.14$, $p = .08$). These interim results suggest that isoflavone supplementation may improve mental function in postmenopausal women with respect to response accuracy and response restraint, effects reflective of enhanced inhibitory control in working memory processes. If these findings are sustained and corroborated, they would imply that this intervention may provide support for older women experiencing memory changes by reducing cognitive interference in memory encoding and retrieval processes and may offer an alternative to steroid hormone therapy.