**Ginkgo biloba**

*Effects of Herbal vX on libido and sexual activity in premenopausal and postmenopausal women.*


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This study investigated the possibility of an alternative to chemical medication in the treatment of sexual dysfunction in healthy women. The efficacy of a unique herbal formulation of Muira puama and Ginkgo biloba (Herbal vX) was assessed in 202 healthy women complaining of low sex drive. Various aspects of their sex life were rated before and after 1 month of treatment. Responses to self-assessment questionnaires showed significantly higher average total scores from baseline in 65% of the sample after taking the supplement. Statistically significant improvements occurred in frequency of sexual desires, sexual intercourse, and sexual fantasies, as well as in satisfaction with sex life, intensity of sexual desires, excitement of fantasies, ability to reach orgasm, and intensity of orgasm. Reported compliance and tolerability were good. These initial findings support the strong anecdotal evidence for the benefits of Herbal vX on the female sex drive. A double-blind study is planned to further research these results.

**The Hawthorne Effect: a randomised, controlled trial.**

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McCarney R; Warner J; Iliffe S; van Haselen R; Griffin M; Fisher P

BACKGROUND: The 'Hawthorne Effect' may be an important factor affecting the generalisability of clinical research to routine practice, but has been little studied. Hawthorne Effects have been reported in previous clinical trials in dementia but to our knowledge, no attempt has been made to quantify them. Our aim was to compare minimal follow-up to intensive follow-up in participants in a placebo controlled trial of Ginkgo biloba for treating mild-moderate dementia. METHODS: Participants in a dementia trial were randomised to intensive follow-up (with comprehensive assessment visits at baseline and two, four and six months post randomisation) or minimal follow-up (with an abbreviated assessment at baseline and a full assessment at six months). Our primary outcomes were cognitive functioning (ADAS-Cog) and participant and carer-rated quality of life (QOL-AD). RESULTS: We recruited 176 participants, mainly through general practices. The main analysis was based on Intention to treat (ITT), with available data. In the ANCOVA model with baseline score as a co-variate, follow-up group had a significant effect on outcome at six months on the ADAS-Cog score (n = 140; mean difference = -2.018; 95%CI -3.914, -0.121; p = 0.037 favouring the intensive follow-up group), and on participant-rated quality of life score (n = 142; mean difference = -1.382; 95%CI -2.642, -0.122; p = 0.032 favouring minimal follow-up group). There was no significant difference on carer quality of life. CONCLUSION: We found that more intensive follow-up of individuals in a placebo-controlled clinical trial of Ginkgo biloba for treating mild-moderate dementia resulted in a better outcome than minimal
follow-up, as measured by their cognitive functioning. TRIAL REGISTRATION: Current controlled trials: ISRCTN45577048.

**The effect of ginkgo biloba on healthy elderly subjects**

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Cieza A; Maier P; Poppel E

BACKGROUND AND AIM: Over the past 25 years, numerous studies have confirmed the positive effect of the special ginkgo extract EGb 761 on the mental ability and emotional well-being of patients with cognitive disorders of vascular genesis, and Alzheimer-type dementia. The following study investigated the short-term effect of the special ginkgo extract EGb 761 on the subjective emotional well-being of healthy elderly subjects. STUDY POPULATION AND METHOD: The study was designed as a randomized double-blind, monocenter study with parallel groups. It included 66 healthy subjects of both sexes aged between 50 and 65 with no age-related cognitive impairments. For a period of 4 weeks, 34 subjects received a daily dose of 240 mg EGb 761, and 32 a placebo. Prior to starting medication and after 28 days of treatment, subjects completed the following scales and questionnaires to establish subjective emotional well-being: the Profile of Mood States (POMS), the Self Rating Depression Scale (SDS), three Visual Analog Scales to assess the quality of life (VAS-QoL), general health (VAS-GH) and mental health (VAS-MH), and a new instrument for assessing changes in general subjective well-being, the Subjective Intensity Score Mood (SIS Mood). Depending on the underlying distribution of the variables analyzed, parametric (t-tests) or nonparametric tests (U-tests) were performed to compare mean values and distributions both within and between the treatment groups. RESULTS: The final examination revealed a statistically significant difference between the two groups for the VAS mental health and quality of life, as also for SIS Mood at the telephone interview in week 2. A comparison of baseline with the final examination within the groups showed a statistically significant improvement in the EGb 761 group for the variables: depression, fatigue, anger and SDS. For none of the variables investigated was a worsening observed in the EGb 761 group. CONCLUSIONS: The results suggest a positive effect of EGb 761 on the subjective emotional well-being of healthy elderly persons.

**Experimental evidence of Ginkgo biloba extract EGB as a neuroprotective agent in ischemia stroke rats.**

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Zhang Z; Peng D; Zhu H; Wang X

EGb761 is a standard extract of Ginkgo biloba, which is a kind of traditional Chinese herbs that has widely used in clinic treatment of stroke in China. However, its effects against ischemic stroke have not been evaluated comprehensively and its neuroprotective
mechanism has not really been explored. In the present study, magnetic resonance diffusion-weighted imaging (DWI), neurological behavior and TTC staining were used to evaluate the therapeutic effect of EGb761 in rat ischemic models. Additionally, Western blot and immunohistochemistry were performed to measure the phosphorylations of cAMP response element binding protein (CREB) and Akt as well as the expression of brain-derived neurotrophic factor (BDNF) in rat brains. The results showed that Ginkgo biloba extract injection significantly increased the apparent diffusion coefficient (ADC) value and average diffusion coefficient (DCavg) value both in the peripheral zone and central zone, improved behavior scores, as well as enhanced the phosphorylations of AKT, CREB and the expression of BDNF in the brains. All these data demonstrate that EGb761 had significant therapeutic effects on ischemic stroke and it perhaps worked through activating the Akt-CREB-BDNF pathway. [Copyright 2011 Elsevier Inc. All rights reserved.]

Short- and long-term effects of Ginkgo biloba extract on sexual dysfunction in women.

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Ginkgo biloba extract (GBE) facilitates blood flow, influences nitric oxide systems, and has a relaxant effect on smooth muscle tissue. These processes are important to the sexual response in women and, hence, it is feasible that GBE may have a therapeutic effect. The present study was the first to provide an empirical examination of the effects of both short- and long-term GBE administration on subjective and physiological (vaginal photoplethysmography) measures of sexual function in women with Sexual Arousal Disorder. A single dose of 300 mg GBE had a small but significant facilitatory effect on physiological, but not subjective, sexual arousal compared to placebo in 99 sexually dysfunctional women. The long-term effects of GBE on sexual function were assessed in 68 sexually dysfunctional women who were randomly assigned to 8 weeks treatment of either (1) GBE (300 mg/daily), (2) placebo, (3) sex therapy which focused on training women to attend to genital sensations, or (4) sex therapy plus GBE. When combined with sex therapy, but not alone, long-term GBE treatment significantly increased sexual desire and contentment beyond placebo. Sex therapy alone significantly enhanced orgasm function compared with placebo. Long-term GBE administration did not significantly enhance arousal responses beyond placebo. It was concluded that (1) neither short- or long-term administration of GBE alone substantially impacts sexual function in women, (2) a substantial placebo effect on sexual function exists in women with sexual concerns, and (3) teaching women to focus on genital sensations during sex enhances certain aspects of women’s sexual functioning.

A randomized, placebo-controlled trial of Ginkgo biloba L. in treatment of premenstrual syndrome.


O zgoli G; Selselei EA; Mo jab F; Majd HA

BACKGROUND AND OBJECTIVES: During the reproductive years, most of
menstruating women experience symptoms of premenstrual syndrome (PMS), which is incapacitating in up to 10% of cases. According to complicated etiology, various therapeutic approaches have been proposed. Because PMS is a chronic situation, special attention should be paid to the side-effects of pharmacological interventions. Herbal medicine is a recent favorable therapeutic approach owing to fewer side-effects. We aimed to determine the effect of Ginkgo biloba L. on the symptoms of PMS.

METHODS: This was a single-blind, randomized, placebo-controlled trial conducted from November 2007 to April 2008. The students with PMS, living in dormitories of a medical university (Tehran), who met the inclusion criteria entered the study. The students filled out the daily symptom rating forms in two consecutive menstrual cycles. After we verified the PMS diagnosis in 90 students, the participants were randomly assigned to experiment and placebo groups and took G. biloba L. tablets (containing 40 mg leaf extracts) or placebo three times a day from the 16th day of the menstrual cycle to the 5th day of the next cycle. Data were collected using daily symptom rating forms.

RESULTS: Eighty-five (85, 94.4%) participants completed the study. The two groups were similar in terms of demographic characteristics and baseline overall severity of symptoms. After the intervention, there was a significant decrease in the overall severity of symptoms and physical and psychologic symptoms in both Ginkgo (23.68%) and placebo (8.74%) groups (p < 0.001). However, the mean decrease in the severity of symptoms was significantly more in the Ginkgo group compared to the placebo group (p < 0.001).

CONCLUSIONS: G. biloba L. can reduce the severity of PMS symptoms. Further research on active ingredients and also the efficacy and safety of various doses and treatment durations of Ginkgo are required.

**Triple-blind, placebo-controlled trial of Ginkgo biloba extract on sexual desire in postmenopausal women in Tehran.**


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BACKGROUND: During the menopausal period, sexual desire may decrease. Therefore, restoring the sexual desire may help to improve sexual functioning in this group of women. The aim of this study was to examine the effect of Ginkgo biloba extract (GBE) on sexual desire in postmenopausal women.

MATERIALS AND METHODS: In this triple-blind, randomized, placebo-controlled trial, 80 healthy female volunteers attending three healthcare centers of Tehran University of Medical Sciences (TUMS) were enrolled. The instrument of this study had two main parts. The first part covered the personal characteristics of the volunteers and the second part used the Sabbatsberg Sexual Rating Scale (SSRS) to subjectively evaluate sexual desire before and after intervention. The participants received GBE at a dose of 120-240 mg (n = 40) or received placebo (n = 40) daily for 30 days. The results were analyzed using Mann-Whitney test. All analyses were performed using SPSS software.

RESULTS: The sexual desire was significantly improved in the GBE group compared to the placebo group (P = 0.02).

CONCLUSIONS: In this study, we found that GBE had a positive effect on sexual desire of menopausal women.
women; thus, these findings support the positive effect of GBE on the sexual function of menopausal women.