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Ways To Reduce The Levels Of FSH In Post-Menopausal Females Without Medication

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Abstract:

This review explores non-medical interventions to reduce follicle-stimulating hormone (FSH) levels in post-menopausal females. Drawing on scientific literature and clinical studies, it analyses lifestyle changes, dietary interventions, and alternative therapies. The paper highlights the physiological role of FSH, its effects post-menopause, and the potential benefits of non-pharmacological methods. Findings suggest that lifestyle changes, targeted nutrition, and alternative therapies like acupuncture and herbal remedies may support hormonal regulation. However, more research is needed to confirm the efficacy and optimise interventions.

Introduction:

Follicle-stimulating hormone (FSH) is a critical hormone the pituitary gland produces. It is primarily involved in reproductive functions. In postmenopausal women, FSH levels increase significantly due to diminished ovarian function. Elevated FSH can lead to symptoms such as hot flashes, bone loss, and emotional changes, making its regulation an area of interest.

This review focuses on non-medical methods for reducing FSH levels in post-menopausal females, addressing the limitations and side effects of hormonal therapies. It aims to evaluate the efficacy of lifestyle changes, dietary modifications, and alternative therapies, providing insights into holistic approaches to hormonal health.

Overview of FSH in Post-Menopausal Women

FSH levels can range from 25.8 to 134.8 mIU/mL post-menopause. This increase is primarily due to the loss of the ovarian feedback mechanism. High FSH levels can lead to adverse effects, including mood swings, anxiety, fatigue, and decreased energy levels.

Lifestyle changes

- **Physical exercise:** Regular physical activity, such as moderate aerobic exercises or yoga, has been shown to enhance hormonal balance and potentially lower FSH levels. A study involving female athletes indicated that after 12 weeks of high-intensity training, luteinising hormone (LH) and FSH concentrations decreased below baseline levels. Furthermore, moderate-vigorous exercise has been associated with improved responsiveness of ovarian follicles to FSH and LH, which can enhance ovulatory status in young women. This study observed significant reductions in FSH levels after one

month of exercise ($p < 0.01$), suggesting that regular physical activity can lead to favourable hormonal changes.

- **Sleep and Stress Management:** Adequate sleep and effective stress management are crucial. High stress can elevate cortisol levels, which may indirectly increase FSH production. A study found that women experiencing high daily stress had a 6.2% increase in FSH concentrations compared to those with lower stress levels (95% confidence interval [CI] = 2.0% to 10.5%) after adjusting for various factors such as age, body fat percentage and physical activity. This suggests a direct correlation between elevated stress levels and increased FSH production, indicating that managing stress could help lower FSH levels.

Dietary interventions

- **Phytoestrogens:** Food rich in phytoestrogens (e.g. soy products like tofu and edamame) may help reduce FSH levels by mimicking estrogen effects.
- **Nutrient Intake:** Specific nutrients such as Vitamin D and calcium are essential for hormonal balance. Caloric restriction or intermittent fasting may also positively influence hormone levels as they result in weight loss. A study conducted in a Diabetes Prevention Program involving overweight postmenopausal women found that weight loss led to small increases in FSH levels (2.3 IU/l compared to a decrease of -0.81 IU/l in the placebo group, $p < 0.01$). This suggests that while weight loss may benefit overall hormonal balance, it can also lead to increased FSH levels through mechanisms involving endogenous estrogen. The relationship between body weight and FSH is complex and may vary depending on individual metabolic responses.
- **Omega-3 Fatty acids-** A study approved by the Colorado Multiple Institutional Review Board and conducted by researchers from the University of Colorado highlighted the effects of omega-3 polyunsaturated fatty acids (PUFAs) on FSH levels. After one month of supplementation with 4 grams of omega-3s daily, normal-weight women exhibited a 28.4% decrease in FSH during the follicular phase and a 12.6% decrease during the luteal phase. This reduction was statistically significant ($p = 0.04$) and suggests that omega-3 supplementation may help improve ovarian function by decreasing FSH levels.

Alternative Therapies

- **Acupuncture:** Research indicates that acupuncture can normalise the hypothalamic-pituitary-ovarian axis function, potentially lowering FSH levels by improving blood circulation to reproductive organs. A total of 13 RCTs comprising 775 patients were included in the study about the clinical value of acupuncture.
- **Herbal Remedies:** Traditional remedies, such as red clover, have shown promise in managing hormone levels, but validation requires further research.

What is the most effective way to reduce levels of FSH in post-menopausal females?

Dietary changes are the most effective approach to reducing FSH levels. This approach aims to lower FSH and promote overall well-being and reproductive health. It is recommended that individuals consult healthcare professionals before implementing significant lifestyle changes to ensure they are appropriate for their specific health needs.

Conclusion

This review highlights those non-medical approaches, such as dietary modifications and acupuncture, can effectively reduce FSH levels in post-menopausal women. However, more research is needed regarding the long-term efficacy of these methods, and further studies are needed to establish standardised protocols for these interventions.

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