Navigating Diets, Supplements, and Women's Health in a Confusing World

Today's Guide for A Healthy Conversation

We will begin at 12:10 p.m.

PRESENTER



Priscilla Brenes MPH, Ph.D, Extension Assistant Professor, State Extension Specialist Department of Food, Nutrition Dietetics, and Health

LIVING WELL WEDNESDAY

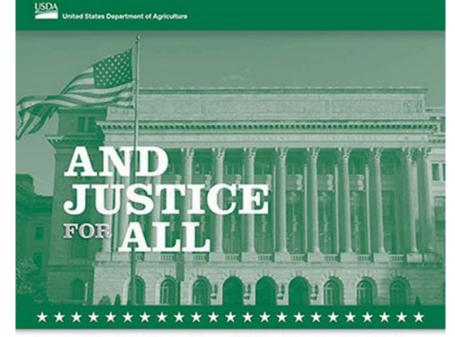
K-State Research and Extension Webinar Series

Be respectful and open to others.

Please type your questions in the Q&A box and comments into the chat box for our moderators.

Today's session will be recorded and will be posted to our Living Well Wednesday web page at <u>www.ksre.k-</u> <u>state.edu/fcs/livingwellwed/</u>

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Family & Consumer Sciences

Navigating Diets, Supplements, and Women's Health in a Confusing World

Presenter: Priscilla Brenes, MPH, Ph.D.



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Objectives for this session

1- Understand what makes a balanced diet for women's health, including important nutrients.

2- Understand when to use supplements, potential risks, and how to pick them.

3- Discuss the sustainability of weight loss pills or medications.

Understand what makes a balanced diet for women's health, including important nutrients



Understand women's needs through the lifespan

- Adolescence
- Adulthood
- Pregnancy-Breastfeeding
- Menopause

Understand how to spot a diet that might be unbalanced.

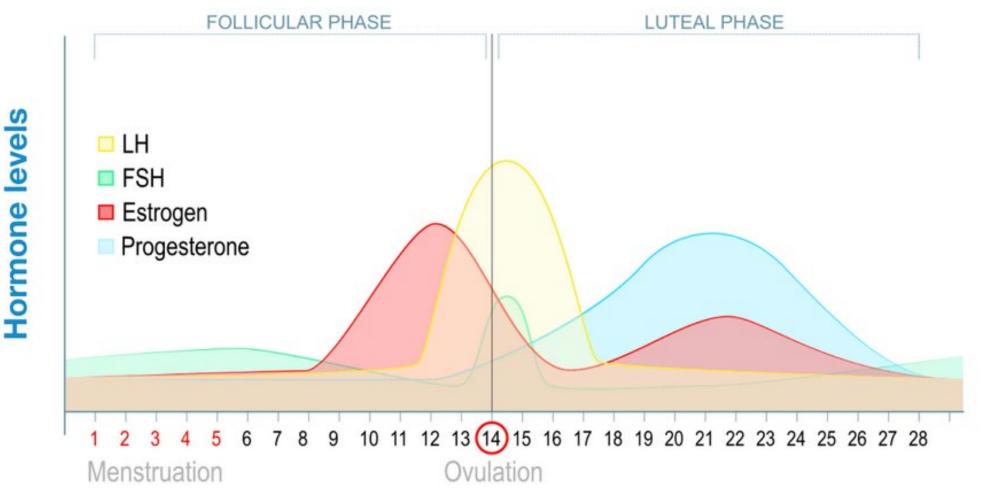
Adolescence

- Increased need for calcium and vitamin D to support bone growth and development (vitamin K, magnesium, zinc)
- Adequate intake of iron to prevent iron deficiency anemia, especially during menstruation.
- Sufficient protein for growth and muscle development.





Adult women



Days

Adult women

Hormone levels

Source: Univer

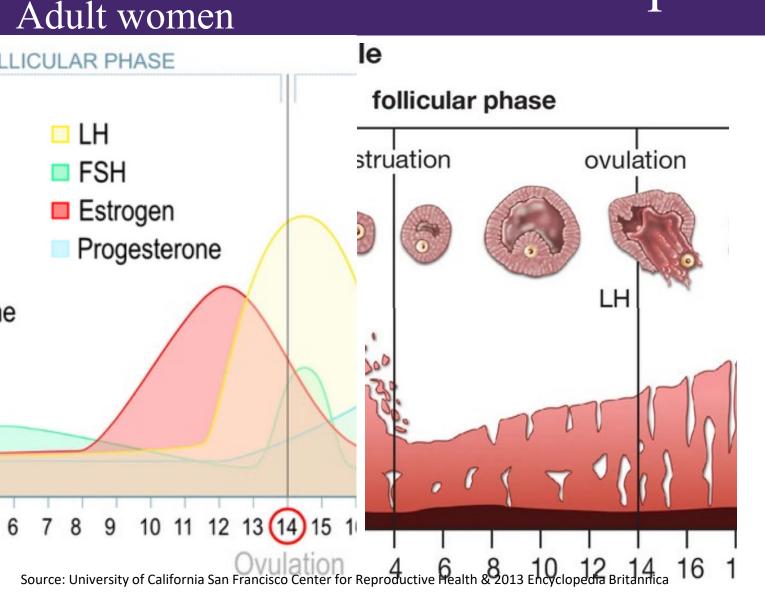
| FOLLICU The menstrual cycle | | |
|---|---------------------------------|-------------------------------|
| 1 | | follicula |
| | | menstruation |
| FSH Estrogen Progesterone | follicular development | • • |
| Trogesterone | endometrial cycle | Contraction of the second |
| 1 2 3 4 5 6 7 Menstruation ersity of California San Francisco Center for Re | eproductive Health & 2013 Encyc | 0 2 4 6 Topedia Britannica |

Foods to include:

- High protein: lean meats, nuts, beans
- Fiber: whole grains, vegetables, fruits (berries)
- Healthy fats: nuts, seeds, olive oil
- Iron-rich foods: lean meats, vegetables, fruits, beans (vitamin C)

Foods that can increase cramps and discomfort:

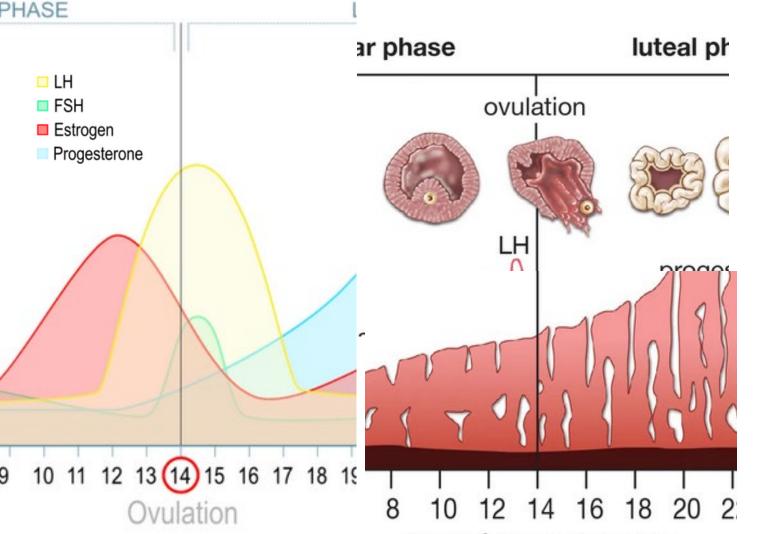
- Highly processed foods
- Alcohol (dehydration)
- Too much added sugar
- High sodium foods



Foods to include:

 Pumpkin or chia seeds, almonds, lentils, beans, chickpeas, and peas help obtain magnesium to regulate mood and relaxation.

As energy levels increase, it can be a great time to focus on a more dynamic exercise routine. Magnesium is crucial for muscle cramps.

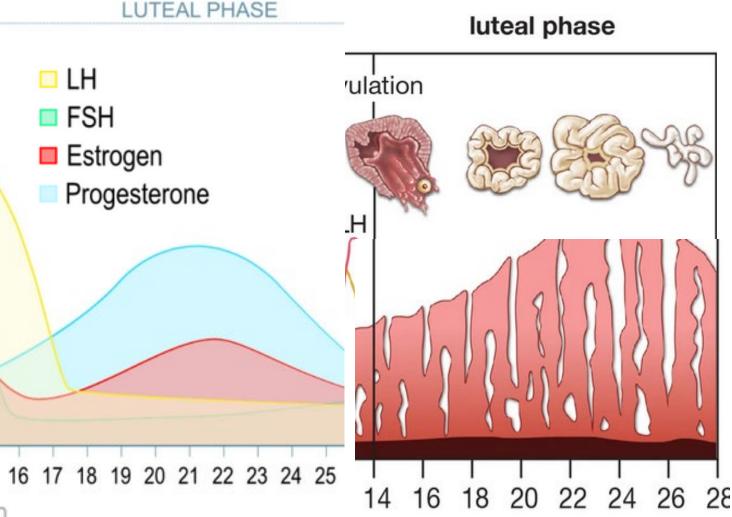


Source: University of California San Francisco Center for Reproductive Health & 2013 Encyclopedia Britannica

Foods to include:

- Fiber-rich foods to help reduce estrogen levels like legumes, berries, leafy greens (spinach, kale, Brussels sprouts), whole grains (quinoa, oats)
- Good protein and healthy fat sources help build the hormones and uterine lining. Include salmon, tuna, lean meats, nuts, and seeds.

Adult women



Source: University of California San Francisco Center for Reproductive Health & 2013 Encyclopedia Britannica

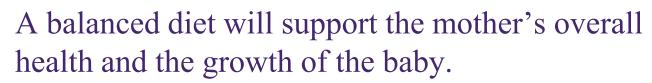
Foods to include:

- Plenty of fruits, vegetables, and whole grains for fiber, vitamins, and minerals to help with mood, cramps, bloating
- Healthy fats for hormone formation
- Iron-rich foods to replenish iron loss through menstruation
- Protein-rich foods to maintain muscle strength for menstruation



MyPlate.gov

Pregnancy-Breastfeeding



• Increased caloric needs (300 kcal a day) in

pregnancy

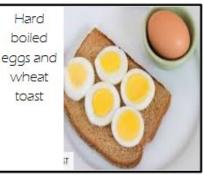




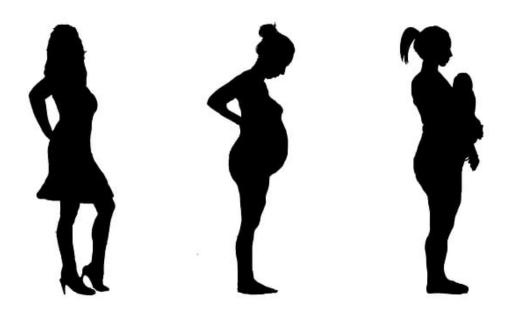


Beans and Rice





Pregnancy-Breastfeeding



A balanced diet will support the mother's overall health and the growth of the baby.

- Increased caloric needs (300 kcal a day) in pregnancy. 400 kcal if breastfeeding
- Most vitamins and mineral needs are increased Supplementation is necessary
- The quality of food is very important
- Healthy fats for fetal brain development and breastmilk production

To explore more about this topic:

https://www.cdc.gov/nccdphp/dnpao/resources/maternal-infant-toddler-resources.html



Menopause/postmenopause

- Usually after age 45
- Ovaries stop producing estrogen and progesterone
- Appropriate medication
- Increase risk of cardiovascular disease
- Loss of bone density, lean muscle mass
- Trouble sleeping
- Mood swings
- Trouble focusing
- Hair loss

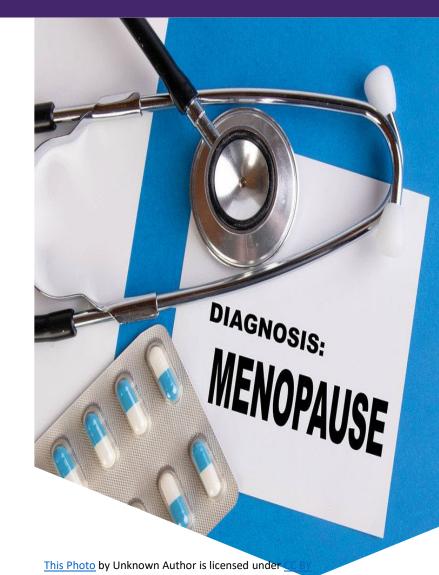




Figure 1. Potential benefits of Mediterranean diet on body composition in postmenopausal women. Redrawn and modified from [34].

> Dietary antioxidants: Beta-carotene, vitamins C and E, selenium, polyphenols

Oxidative stress and inflammation
 Inhibition of osteoblastic cell differentiation
 Protection of myocytes from reactive oxygen species
 TNF-α , IL-6 and IL-1β in visceral adipose tissue



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Mediterranean Diet

Increased consumption of whole-grain cereals, nuts, fruits, pulses, olive oil, moderate consumption of fish, and a lower consumption of sweetened beverages and red meat Beta-carotene

Magnesium

Bone formation
 Osteocalcin synthesis by osteoblast
 Obsteoblast mineralization
 Suppression of osteoclast formation

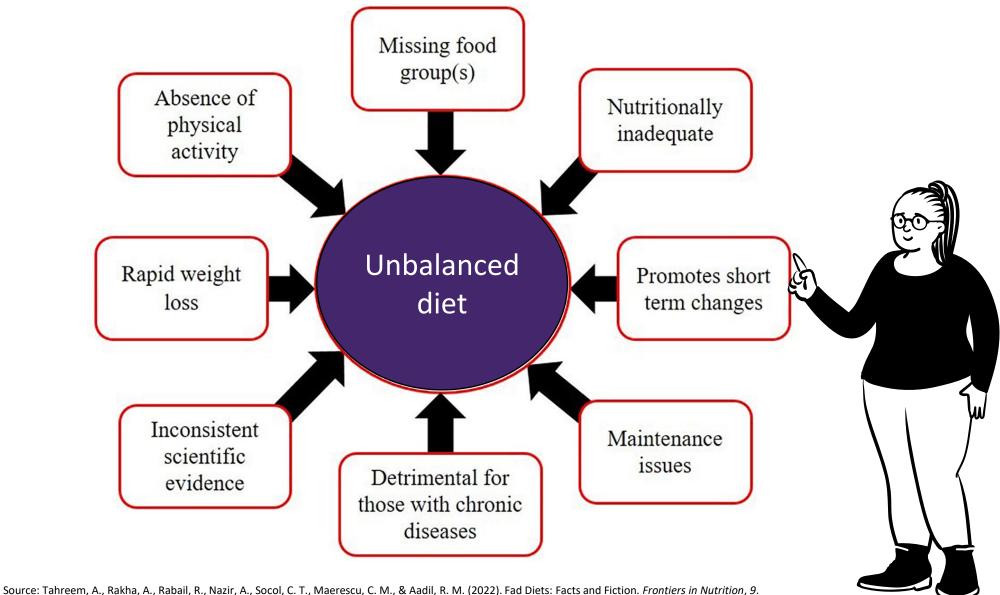
Muscle performance
 Energy metabolism
 Transmembrane transport

Inansmembrane transport
 Muscle contraction and role

1 Muscle contraction and relaxation

Silva, T. R., Oppermann, K., Reis, F. M., & Spritzer, P. M. (2021). Nutrition in Menopausal Women: A Narrative Review. *Nutrients*, *13*(7), Article 7. <u>https://doi.org/10.3390/nu13072149</u>

How to spot an unbalanced diet?



https://www.frontiersin.org/articles/10.3389/fnut.2022.960922

Understand when to use supplements, potential risks, and how to pick them



Do I need them? Do I have evidence of a deficiency? Are the risks associated with taking supplements? Are all supplements made the same? How can I pick the best supplement?

Understand when to use supplements, potential risks, and how to pick them



Do I need them? Do I have evidence of a deficiency? Are the risks associated with taking supplements? A balanced diet will supply your body with all the necessary nutrients. Supplements are not substitutions for food. Taking a multivitamin doesn't mean your body doesn't need fruits and vegetables.

Supplements recommended

- Pregnancy or breastfeeding
- Postmenopausal women
- Nutrient deficiency (blood test)
- Other health conditions (sensitivity, allergy, disease)
- Vegans

Always consult with your healthcare provider.

Understand when to use supplements, potential risks, and how to pick them



Are all supplements made the same? How can I pick the best supplement?

- Not FDA approved.
- Always consult with your healthcare provider.
- If you decide to take an OTC supplement, do your research.
- Not all supplements are made the same. Some get absorbed better than others. Some companies are more reputable than others.
- <u>https://ods.od.nih.gov/factsheets/list-all/</u>

Discuss the sustainability of weight loss pills or medications



It is possible to lose weight with medications.

Many of these pills are not for long-term use.

Some of these pills need a group of health professionals to assess the person.

Taking a pill is different than forming healthy lifestyle changes.

Ozempic/Wegovy – What the research says...

Known generically as semaglutide. It was created to treat diabetes, but some physicians prescribe it for weight loss (creating a shortage).

A study by Wilding et al. (2022) showed that after 1 year of stopping this medication:

- People gained 2/3 of the weight they originally lost.
- Blood sugar levels return almost back to baseline in people with diabetes.
- Risk of major cardiac event remains lower

In the end, people have the most success when they establish a healthy diet and regular exercise habits.



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Thank you



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Family & Consumer Sciences

Palmery M, Saraceno A, Vaiarelli A, Carlomagno G. Oral contraceptives and changes in nutritional requirements. Eur Rev Med Pharmacol Sci. 2013 Jul;17(13):1804-13. PMID: 23852908.

Oral contraceptives (OCs) are a major class of prescription drug, used by a large proportion of women starting from early adolescence. Much research has been conducted to investigate the physiological changes that occur in women who take OCs. These include changes in general health as well as in nutritional needs. In terms of nutrition, several studies investigated whether women on OCs need different amounts of some vitamins and minerals. In particular, a report from the World Health Organization (WHO) points out that the influence of OCs on nutrient requirements is a topic of high clinical relevance and should, therefore, receive great attention. It has been shown that the key nutrient depletions concern folic acid, vitamins B2, B6, B12, vitamin C and E and the minerals magnesium, selenium and zinc. Most research has focused on the levels of these vitamins and minerals in the blood of women who take OCs compared to women who do not. Since women who take OCs not always have adequate diet, may have unhealthy life style or may suffer from pathologies of malabsorption, the possibility to prevent vitamin and mineral deficiencies by taking appropriate dietary supplements should be considered a first-line approach by clinicians.

Effects of Soy Foods in Postmenopausal Women: A Focus on Osteosarcopenia and Obesity

Chronic diseases in postmenopausal women are caused by rapid changes in hormones and are accompanied by rapid changes in body composition (muscle, bone, and fat). In an aging society, the health of postmenopausal women is a social issue, and people's interest in ingesting highquality protein is increasing in order to maintain a healthy body composition. This review aims to summarize the efficacy of soy foods and their impact on body composition. The soy protein and isoflavones contained in soy foods can improve muscle and bone density quality and reduce body weight. It is considered a breakthrough in preventing osteosarcopenia and obesity that may occur after menopause.

Today, soy foods may improve the BC of menopausal and premenopausal women. To make it easier for readers to understand the benefits of soy foods for postmenopausal women, we have summarized some research experiments (<u>Table 3</u>) and proved that it not only delays the physical disabilities of menopausal women with osteosarcopenia and obesity, but it can also improve their muscle mass and bone strength to prevent the development of osteosarcopenia. In summary, this review focuses on the soy proteins and isoflavones contained in soy foods, which have an improved effect on osteogenesis and muscle growth while having an effect on weight loss and glucose metabolism. Although some studies have questioned the mechanism of the protective effect of soybean ingredients on certain metabolic diseases, it remains unclear and requires more future research.