

The Menopause

What is the evidence for diet and lifestyle?

Elphee Medici, RD

The search for effective lifestyle and diet alternatives for menopausal symptoms is growing. Can diet and lifestyle really compete with pharmaceuticals and come out a winner? Dietitian Elphee Medici investigates the evidence providing practical tips to help your patients optimise their diet and lifestyle for a healthier menopause.

What is the Menopause?

The menopause is defined as the cessation of the menstrual cycle and the end of a woman's reproductive years – 12 months after the final menstrual period. A woman undergoing the transition between the pre-menopause and the menopause is known as peri-menopausal. This stage can last up to 4 years. The menopause is accompanied by an elevation of follicle stimulating hormone and later lutealizing hormone¹.

What are the symptoms?

The symptoms of the menopause are physiological and psychological and vary significantly between individuals and culture, therefore, it is important to treat each patient individually.

Short-term symptoms

Vasomotor Symptoms – hot flashes and night sweats

Hot flashes (flushes): the sensation of intense warmth with coincidental sweating and/or palpitations that can last from 2 to 30 minutes.

Night sweats: hot flashes at night that can result in sleep disturbance.

These are the most common symptoms beginning at the peri-menopause stage and reaching a peak around the last menstrual cycle. Symptoms reflect the body's response to withdrawal of oestrogen and can be most distressing to the individual. The severity of the symptoms will often decide whether a person seeks medical or alternative therapy intervention. It is important to explain to the patient that the symptoms will gradually reduce in severity and frequency and will subside with time – normally 6 months to 2 years with a median of 4 years¹.

Other symptoms¹

- Urogenital atrophy – vaginal dryness: 33%-50% of women and increases with age.
- Sleep disturbance: most common in the transition period.
Avoidance of alcohol and caffeine as well as keeping the bedroom well ventilated and regularly exercising have been shown to help.
- Mood disorders – anxiety, depression
- Cognitive disturbance – painful joints – tiredness – urinary incontinence – vertigo – headache – palpitations – sexual dysfunction.

Diet and Vasomotor Symptoms

Oestrogen therapy is the most effective therapy for vasomotor symptom relief for more than 70% of cases. The benefits are normally seen within 1 month of therapy², however, certain lifestyle and dietary changes can also have a significant impact.

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Isoflavones

Isoflavones act as a weak oestrogen and attach to oestrogen beta-receptors in the body. A number of clinical studies and meta-analysis investigating soya and red clover isoflavones have demonstrated a 20% significant reduction in intensity and frequency of symptoms by women suffering from severe hot flashes (≥ 6 day)³⁻⁶. Soya is the richest source of isoflavones in the UK diet and present in 3.4 million households⁷. The current recommendation is for severe sufferers to try and consume 50mg of isoflavones spread over the day, equating to 2-3 servings of soya foods. Improvements should be seen within 12 weeks⁶. Interestingly, isoflavones from soya milk alternatives are more bioavailable than other soya foods and isoflavones from fermented soya products such as tempeh are more bioavailable than textured vegetable protein⁸.

Long-term symptoms – clinically significant

Unlike the transient vasomotor symptoms, clinically significant long-term consequences of the menopause which need early intervention, often unfortunately go unnoticed by patients. Therefore, it is important to increase awareness of these.

Osteoporosis

The loss of oestrogen results in an accelerated bone resorption rate especially during the first two years of the menopause⁹. 1 in 2 women in the UK over the age of 50 will suffer from osteoporotic fractures¹⁰, so early intervention is paramount. Bis-phosphonates are an effective treatment but only when accompanied by adequate calcium and vitamin D status^{1,9}. Weight bearing physical activity should also be encouraged¹¹.

Menopausal women should be advised to consume 800mg calcium daily (increase to 1,200mg for those already suffering or at high risk of osteoporosis) and be prescribed vitamin D supplements of at least 10mcg per day¹².

Weight gain

Many menopausal women report difficulty in maintaining a healthy body weight. Obesity will further exacerbate the risk of heart disease, diabetes and some cancers so weight maintenance is crucial. A healthy balanced diet and daily moderate activity should be encouraged. Evidence for higher protein and moderate carbohydrate intakes for optimum satiety is mounting, although the level and type of protein has not yet been established. A recent randomized controlled study has demonstrated that a high vegetable protein diet with moderate carbohydrate intake has significant impact on weight loss and satiety¹³ as well as a more favourable serum lipid profile than high animal protein low carbohydrate diets.

Heart Health and Cholesterol

Menopausal women are at a higher risk of cardiovascular disease. 7 out of 10 will exhibit elevated cholesterol levels secondary to the loss of oestrogen so cholesterol lowering advice should be encouraged:

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- 5 fruit and vegetables per day
- Increase in wholegrains
- Increase in soluble fibre e.g. beans, pulses, oats, fruit
- 1-2 servings of oily fish per week
- Reduction in saturated fat intake. (>80% of the UK population consumes too much saturated fat¹⁴, recent government guidelines have emphasised the need to cut down by 20%¹⁵).
- Stanol/Sterol containing foods e.g. benecol
- **Soya Protein**
25g of soya protein per day has been demonstrated to reduce Low Density Lipoprotein Cholesterol by 6%, which equates to a 12-15% reduced cardiovascular risk¹⁶. A new meta-analysis indicates that this benefit could be achieved with just 15g of soya protein¹⁷. It is the protein and not the isoflavones component of the soya bean that is effective for cholesterol lowering. 25g soya protein can be achieved from consuming 3 portions of soya foods¹⁶.

Popularity of soya foods is increasing. However, it is fundamental that people are made more aware of the great taste and variety on the market today.

The Role of Exercise

Exercise has been shown to improve mood and anxiety levels, it helps with weight management and blood lipids¹⁸.

In conclusion

Certain foods and nutrients such as low saturated fat, soluble fibre, wholegrains, soya, calcium and vitamins have specific impacts on many of the long and short term effects of the menopausal symptoms. Patients should be informed of the significant benefits that a healthy balanced diet and regular moderate activity can have on their symptoms and be encouraged to make diet and exercise changes their first steps for treatment. Focus should be individualised depending on symptoms.

Print off the practical table below which provides a handy summary of key menopause diet and lifestyle recommendations:

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| FOOD/DRINK | RECOMM. SERVING | NUTRIENTS | MENOPAUSAL SYMPTOM IMPACT | | | | | | |
|--|--|--|---------------------------|----------------------|--------------|----------------|-------------|-------|------|
| | | | Hot flashes | Cholesterol lowering | Heart Health | Weight Satiety | Bone Health | Sleep | Mood |
| Fruit & Vegetables <i>As many varieties as possible</i> | 5 servings a day | <ul style="list-style-type: none"> Essential minerals and vitamins. Soluble fibre. Low energy density | - | ✓ | ✓ | ✓ | ? | - | - |
| Wholegrains Wholegrain breakfast cereals, oats, wholemeal bread. | 3 servings a day e.g.: 30g wholegrain breakfast cereal + 2 slices wholemeal bread OR 1 bowl porridge + 1 slice wholemeal bread + 2 tablespoons brown rice. | <ul style="list-style-type: none"> Soluble & Insoluble fibre. Lower energy density Minerals and vitamins. | - | ✓ | ✓* | ✓ | - | - | - |
| Beans, Pulses, Oats | Include more beans and pulses with your main meals. | <ul style="list-style-type: none"> Soluble fibre Protein. Minerals and vitamins. | - | ✓ | ✓ | ✓ | - | - | - |
| Oily Fish | Once a week | <ul style="list-style-type: none"> DHA & EPA. Protein Calcium♦ Vitamin D | - | - | ✓ | - | ✓ | - | - |
| Soya Foods 25g protein and approx. 50mg isoflavones. | 3 servings a day e.g.: 250ml glass of soya milk alternative + 125g soya yogurt alternative + 80g firm tofu OR 150ml soya milk alternative on cereal + Latte made with 150ml soya milk alternative + 30g serving of soya nuts. | <ul style="list-style-type: none"> Soya protein Isoflavones Protein – high biological value Soluble & insoluble fibre Calcium# Oligosaccharides. | ✓* | ✓ | ✓ | ✓ | ✓ | - | - |
| Calcium Foods | 3 servings per day <ul style="list-style-type: none"> low fat dairy Calcium fortified soya dairy alternatives Tofu Oily fish with soft edible bones Almonds/Brazil nuts White and brown bread | | - | - | - | - | ✓ | - | - |

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|------------------------|---|-----------|---------------------------|----------------------|--------------|----------------|-------------|-------|------|
| | | | Hot flashes | Cholesterol lowering | Heart Health | Weight Satiety | Bone Health | Sleep | Mood |
| Vitamin D | <p>At least 10mcg per day + safe sun exposure during April to September months.</p> <ul style="list-style-type: none"> Supplements Oily fish Margarines Fortified breakfast cereals/skimmed milk powders Eggs | | - | - | - | - | ✓ | - | ? |
| Caffeine drinks & Food | Those who are suffering from poor sleep avoid caffeine near bedtime. | | - | - | - | - | - | ✓ | - |
| Alcohol | Those with severe hot flashes should try keep intake to a minimum and consume no more than recommended 2 units per day for women. | | ✓ | - | - | - | - | ✓ | ? |
| EXERCISE | Daily 30-60 mins moderate intensity. To include weight bearing physical activity twice a week. | | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

* Individuals who consume more wholegrains have a lower risk of cardiovascular disease.

◊ If soft bones are included – significant source of calcium – e.g. sardines/pilchards.

soya beans and tofu are excellent sources of calcium. Soya alternatives to milk, yogurt and desserts need to be calcium fortified.

* for those suffering from severe hot flashes (>=6 a day) should benefit.

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