Subjective Findings and History

- Definition: Menopause is a normal event, not a disease. It is confirmed after one year without a menstrual cycle (amenorrhea); most symptoms start before menses cease (perimenopause). The permanent cessation of menstruation following the loss of ovarian activity, resulting in lower levels of estrogen and other hormones. Menopause can occur as a result of aging, or secondary to surgery, medications, or radiation. The 5-year period after the final menstrual period is considered early postmenopause.¹

- The mean age of menopause in the United States is 51 years, but some women experience early menopause (at age 41-45 years) or premature menopause (at age 40 years or younger).²

- Body systems of significance in this condition: cardiovascular, sexual and reproductive (urogenital), musculoskeletal (osteoporosis), mental and dermatological health.

- Common symptoms include vasomotor instability (hot flashes, night sweats, sleep disturbances), nervousness, depression, insomnia, irritability, irregular, heavy or light menses, palpitations, decreased libido, skin changes, headaches, decreased mental concentration, musculoskeletal pains. Mood changes (anxiety, emotional lability), and genitourinary (GU) symptoms (vaginal dryness, dysuria, urinary tract infections, postcoital bleeding). Symptoms are often most severe during early postmenopause. Perimenopause can include menorrhagia and dysmenorrhea.

- Hot flashes and flushing are prevalent symptoms and the most common reason women seek medical care. In addition to acute symptoms, estrogen deficiency also leads to long-term health risks such as increased risk of osteoporosis and cardiovascular disease.

Objective Findings

- Objective findings from perimenopause through postmenopause may include: elevated blood pressure, symptoms of anemia (fatigue), changes in menstruation, mood changes, sleep disorders, evidence of UTI, atrophic vaginitis, and diaphoresis (vasomotor symptoms).

Assessment

- A complete physical and pelvic (gynecological) examination are recommended.

- A physical exam, including vitals, body mass index (BMI), dental evaluation, ophthalmic evaluation (assessing for macular degeneration), cardiovascular, dermatological (hair and nail health), and mental health screening are suggested.

- Lab evaluations: Serum FSH and LH change and eventually become elevated; estrogen and progesterone levels increase, and then eventually decrease. Anemia may be present. Blood
chemistries may be indicated to assess lipid status and thyroid function. FSH, LH, and serum estradiol may be evaluated to assist with response to treatment.

- Assessment of cardiovascular risk: may require in depth evaluation to assess risk.
- Colorectal screening and mammography as needed based on risk factors and age screening guidelines.
- Pap smears should be current; maturation index may provide information on hormone levels in relation to squamous epithelial cells.
- A DEXA (bone density) assessment and mammogram should be ordered, based on the patient’s age.

**Treatment**

Treatment goals: focus on alleviation of symptoms to improve quality of life and prevention of cardiovascular disease risk and osteoporosis. Research has shown that women feel they are not sufficiently informed to make safe decisions regarding complementary and alternative medicine (CAM) treatment options to alleviate menopausal symptoms. With the increased adoption of CAM, it is important for health care providers to be familiar with treatments used by patients for symptoms of menopause so they are comfortable discussing the benefits and risks with their patients to assist them in making informed decisions. Increased clinician awareness can promote supportive discussions about CAM during counseling for menopause.

**Therapies**

Vitamin/mineral supplementation:

- Calcium/Vitamin D – shown to reduce bone mineral density loss and the incidence of fractures in postmenopausal women.
- Magnesium and boron
- Vitamin C and hesperidin
- Vitamin E
  - Vitamin E should not be ingested in excessive amounts and is associated with increased all-cause mortality.
- Vitamins vitamin A–E and K, magnesium, selenium and zinc - These vitamins, minerals and trace elements play an important role in maintaining health and wellbeing among menopausal women.

Acupuncture: mixed results for reduction of vasomotor symptoms

Traditional East Asian Medicine (TEAM): robust evidence for the efficacy of TEAM in treating menopausal symptoms is currently lacking, existing studies provide sufficient evidence to warrant further research.

Botanical medicines: phytohormone precursors, hormonal support and balancing herbs, nervines, digestive tonics, and liver supporting herbs.

- Asian Ginseng (Panax) mixed results for vasomotor symptoms and somatic complaints (fatigue, insomnia, depression, mood).
- Cimicifuga racemosa (Actaea racemosa) or Black cohosh – mixed results for vasomotor symptoms.

For sleep and mood issues related to menopause.
vasomotor symptoms. There is no evidence to date to suggest any safety issues of black cohosh (C. racemosa) in women with previous breast cancer. Data points to better efficacy in perimenopause. Pockaj et al. (2004) suggested that black cohosh may be of benefit to women with breast cancer who are taking tamoxifen, because of its presumed serotonergic rather than estrogenic effect. Black cohosh interacts with a CYP34A, which may potentiate drug interactions. Black cohosh is not a phystoestrogen as originally thought.

- Kava (Piper methysticum)
- Ginkgo (Ginkgo biloba)
- Licorice (Glycyrrhiza glabra)
- Red clover (Trifolium pratense) isoflavones for urogenital symptoms (dyspareunia, vaginal dryness, decreased libido) mixed results for vasomotor symptoms
- Rehmanna spp.
- Sage (Salvia officinalis)
- Saint John’s Wort (Hypericum perforatum) mixed results. The estrogenic profile of dong quai has been conflicting and caution should be used until more research has been conducted.
- Evening Primrose Oil - mixed results for vasomotor symptoms. May be effective for cardiovascular and bone health.
- Soy Isoflavones - mixed for vasomotor symptoms, a diet high in soy protein was found to be protective against bone fracture, with a trend toward lower risk with higher soy intake, some evidence for arterial compliance, decreasing LDL and increasing HDL.
- Phytoestrogens - there is no evidence to date to suggest any serious safety concerns associated with phytoestrogens intake in healthy women. These appear to have only minimal effect on hot flashes but have other positive health effects, e.g. on plasma lipid levels and bone loss.
- Phytosterols (PS) and phytostanols (PS) have been shown to diminishing LDL and total cholesterol in postmenopausal women. PS possess further beneficial properties including anti-inflammatory, anti-atherogenic, antioxidant, and anti-cancer effects.
- Vitex (Vitex agnus-castus)
- Wild Yam (Dioscoria villosa) - mixed results in studies
- Combination Herbal Formulas with St. John’s Wort – shown to be effective for vasomotor symptoms
- Homeopathic medicine based on case
- Life style factors and modifications: avoidance of alcohol and tobacco.
  - Smoking (negative correlation)
  - Wearing light clothing, weight reduction, and yoga) for vasomotor symptoms
• Dietary changes - fiber is effective in reducing serum total cholesterol in hypercholesterolemic postmenopausal women.\textsuperscript{clxxvii}

• Exercise therapy and strength training: bone strengthening and cardiovascular health, \textsuperscript{ccxiv,ccxii,ccxv,ccxvii,ccxviii,ccxiv,ccxvi,ccxvii} reducing bone mineral density loss and the incidence of fractures in postmenopausal women, \textsuperscript{clxxvii} mood and quality of life, memory concentration. \textsuperscript{ccxi,ccxii,ccxiii,ccxiv}

• Pharmaceuticals:
  o Clonidine – for vasomotor symptoms \textsuperscript{ccxi,xxxvii}
  o Gabapentin – for vasomotor symptoms\textsuperscript{ccxv,ccxxvi,ccxvii}
  o Selective serotonin reuptake inhibitors (SSRIs)- for vasomotor symptoms, \textsuperscript{ccxxviii,ccxxix,ccxxx,ccxxxi,ccxxxii,ccxxxiii} sleep and mood symptoms\textsuperscript{ccxxix}

• Bio-identical hormone replacement therapy (BHRT) and hormone replacement therapy (HRT) based on patient preference with appropriate monitoring. \textsuperscript{ccxxiv,ccxxv,ccxxvi,ccxxvii}
  o Once thought to be cardio-protective, more recent prospective trials demonstrated a potential increase in cardiovascular events in addition to an increased risk of breast cancer, raising serious concerns over the use of HRT. \textsuperscript{ccxxviii} The highly publicized results of these trials initiated concerns with the lay public and, ultimately, changed professional prescribing patterns with the use of HRT in the United States decreasing from 91 million users in 2001 to 57 million in 2003. \textsuperscript{ccxxix}
  o Natural progesterone \textsuperscript{ccxli,ccxlii,ccxliii,ccxliv,ccxlv,ccxlvii,ccxlviii,ccxl,ccxlix,ccxlix,ccxl,ccxlvii,ccxlviii,ccxlvi,ccxlvii,ccxlvi,ccxlvi,ccxlvi,ccxlv,v}
  o DHEA \textsuperscript{ccxli,ccxlii,ccxliii,ccxl,ccxlv,ccxlvii,ccxlvi}

• Psychosocial: Treatment of mental health and emotional symptoms. Case appropriate counseling (e.g. contraception, emotional issues, transitions, sexual concerns, progression, and medical issues at menopause). Cognitive Behavioural Therapy (CBT) \textsuperscript{cclvii,cclviii}

• Mind-Body Therapies (yoga, meditation, tai chi, muscle relaxation, breath-based techniques, relaxation response training and low-frequency sound-wave therapy. Improvement in overall menopausal and vasomotor symptoms; six of seven trials indicated improvement in mood and sleep with yoga-based programs, and four studies reported reduced musculoskeletal pain. Results from the remaining nine trials suggest that breath-based and other relaxation therapies also show promise for alleviating vasomotor and other menopausal symptoms. \textsuperscript{cclix,ccx,ccxi}

Length of treatment
• Dependent upon each individual case; experience differs greatly for different women.
• Perimenopausal symptoms may start several years before menses have ceased and symptoms may continue for several years after cessation (postmenopause).

Criteria for referral or re-evaluation
• Development of other gynecological conditions beyond range of “simple” menopause.
• Evidence of other age or hormone related organ system problems: moderate to severe bone loss, symptoms of dementia or moderate-severe depression, evidence of coronary artery disease, macular degeneration, cancers, and gastrointestinal disease.
References
Systematic Reviews:


Clinical Pathway Feedback
CHP desires to keep our clinical pathways customarily updated. If you wish to provide additional input, please click on the email address listed below and identify which clinical pathway you are referencing. Thank you for taking the time to give us your comments.

Chuck Simpson, DC, CHP Vice President, Clinical Affairs: csimpson@chpgroup.com

---


Dennehy, C. A review of select vitamins and minerals used in postmenopausal women. Maturitas; in press.


The CHP Group
Menopause Clinical Pathway
Copyright 2014 The CHP Group. All rights reserved.


Menopause Clinical Pathway


cxcxiii Holtof K. The bioidentical hormone debate: are bioidentical hormones (estradiol, estriol, and progesterone) safer or more efficacious than commonly used synthetic versions in hormone replacement therapy? Postgrad Med. 2009 Jan;121(1):73-85.


