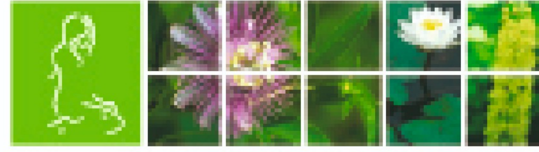
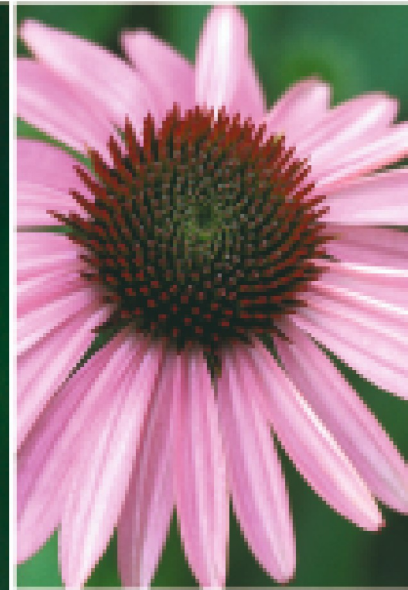
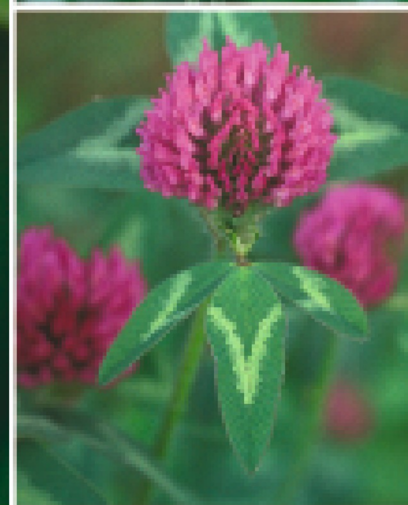


HERBAL MEDICINE FOR WOMEN





HERBS FOR THE WISDOM YEARS

UNIT 4

Unit 4: Herbs for the Wisdom Years

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Disclaimer

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HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 43

The Wisdom Years

Learning Objectives

By the end of this lesson you will be able to:

1. Differentiate between perimenopause and menopause
2. Understand the significance of menopause physically, emotionally, and spiritually
3. Describe dietary/nutritional, lifestyle, and exercise habits that may help to ease the menopausal transition and prevent medical problems
4. Identify common health problems that can arise during the menopausal transition and their relationship to the physiologic changes of menopause
5. List and describe the actions, indications, forms of administration, doses, and contraindications of the botanicals commonly used for the major symptoms and problems associated with perimenopause and menopause

Unit 4 Lesson 43 The Wisdom Years

Required Reading

Botanical Medicine for Women's Health, 2nd edition (Romm)

- Perimenopause and Menopause: An Overview, pp 485-491

Obstetrics and Gynecology at a Glance (Norwitz and Schorge)

- Menopause and Hormone Replacement Therapy

Article: *The Herbalist's Approach to Menopausal Symptom Management* (Romm)

Principles and Practice of Phytotherapy (Mills and Bone)

- Review relevant herb monographs from Key Botanicals list below

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using an on-line medical dictionary. The key words in the following list will appear in lessons throughout this unit.

Cardiovascular disease
Climeractic
Dyspareunia
Estrogen
Flooding
FSH
Grandmother hypothesis
Hot flashes
HRT
Insomnia
LH
Libido
Memory changes
Menopause
Oophorectomy
Osteoporosis
Palpitations
Perimenopause
Phytoestrogen
Prolapse
Night sweats
Sexual dysfunction
Surgical menopause
Vaginal atrophy
Vaginal dryness
Vasomotor

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Achillea millefolium

Alchemilla vulgaris

Angelica sinensis

Bacopa moniera

Bupluerum falcatum

Calendula officinalis

Capsella bursa pastoris

Cimicifuga racemosa

Crataegus laevigata

Dioscorea villosa

Eleutherococcus senticosus

Eschscholtzia californica

Ginkgo biloba

Glycyrrhiza glabra

Hypericum perforatum

Lavandula angustifolia

Leonurus cardiaca

Paeonia lactiflora

Panax ginseng

Panax notoginseng

Panax quinquefolium

Passiflora incarnata

Piper methysticum

Rosmarinus officinalis

Salvia officinalis

Scutellaria lateriflora

Trifolium pratense

Valeriana officinalis

Verbena hastata

Withania somnifera

Introduction

Here's a striking way to think about menopause: the average age of "the change" for women in the US is 51 years and the average life expectancy is 83 years; thus women in the US spend approximately one-third of their lives in the menopausal years! Also significant is the sheer volume of women in the US that are at or reaching menopausal age – as many as 50% of all women (the baby boomers) are expected to be menopausal by the year 2015. Thus, menopause is of great importance for the health of literally millions of women and is a ripe area for midwives and herbalists to provide education and support. Teaching women how to gracefully and healthfully make the transition from matron to crone, as it might be described archetypically, is important work.

Understanding Menopause

So what is menopause and what's all the fuss? Technically, menopause is the cessation of the menses (no more pads and tampons!). Quite literally the Latin term means cessation (pausis) of the monthly cycle (menses means month). It is also synonymously referred to as "the climeractic." Emotionally, psychologically, and spiritually, menopause is a major life transformation, taking women out of the childbearing years and into the wisdom years, from physical fertility and reproduction to the type of productivity and dissemination of works and ideas that comes with seasoned life experience. It is not an event; it is a process that evolves over sometimes up to a

decade of hormonal changes and for some women is accompanied by symptoms that make them aware that this change is happening – for example, hot flashes, night sweats, mood changes, vaginal dryness, menstrual cycle irregularities. Some of the life changes and physical signs can be challenging for women to accept, experience, and embrace, for example, an empty home if children have grown up and gone off to live their own lives in college or out in the world, facing issues about marriage if certain issues have been swept under the rug while raising kids, financial concerns about retirement and older years, body-image issues related to aging, personal and career issues, being single in one's 40s and 50s if not with a partner, and the very real discomforts and impact of associated symptoms such as vaginal dryness, hot flashes, and urinary changes. Women need midwives for menopause just as we need midwives for pregnancy and birth – strong women guides with knowledge of the process.

Medically, the phase of life after menopause is considered a time of increased vulnerability to certain conditions that may result from or be exacerbated by loss of the protective effects of estrogen on the heart, bones, and brain – for example, an increased risk of heart attack, osteoporosis, and dementia – as the production of estrogen decreases with age and declines in ovarian function. Disease prevention is an important consideration and it is optimal for women to deliberately bolster their health and strengthen their hearts, minds, and bones during this time much as it is important to be mindful of additional needs during pregnancy and breastfeeding. But just as pregnancy is over-medicalized in our society, so is menopause. This lesson provides an overview of menopause and serves as an introduction to the subsequent lessons in this unit and related chapters in *Botanical Medicine for Women's Health* which discuss common concerns and conditions that can arise in the wisdom years and how to support health and prevent/treat some of the symptoms and conditions associated with this phase of life. The goal of Unit 4 is to emphasize the natural physiologic nature of menopause and to recognize and address how and why this time of life might present various physical, emotional, and spiritual challenges. Read on…

Ovaries, Eggs, and Hormones

Menopause is a natural physiologic process and is demarcated by the cessation of menses for one year. The medical explanation for menopause is the inevitable reduction in the number of ovarian follicles and declining ovarian function as a natural response to age with consequent reduction in estrogen and progesterone secretion.

When we (women) are still in the womb we are already endowed with something like a million or more ova that have the potential to mature, be released, and become fertilized. By a yet unknown process of natural selection, by the time of our birth this number has declined to less than half-a-million. At puberty some of these ova begin to mature – each month many follicles (which are basically an egg cell surrounded by multiple layers of estrogen producing granulosa cells) form and one egg becomes dominant, matures fully, and is eventually released in the process we call ovulation. Only about 400 eggs will ever reach maturity in the course of a woman's fertile lifetime; the remainder will degenerate along the way (in a process known as atresia). This process is part of a complex feedback loop involving estrogen, progesterone, and the hormones GnRH (gonadotropin releasing hormone), FSH (follicle stimulating hormone) and LH (luteinizing hormone). GnRH is produced in the hypothalamus and stimulates production and release of FSH and LH from the pituitary, in concert with signals from the blood levels of estrogen and progesterone. These hormones stimulate the ovarian follicles to develop (FSH) and release the dominant follicle at just the right time (LH).

So what causes menopause? By about age forty a woman has 5,000 to 10,000 remaining eggs, and this number begins to rapidly decline and the follicles become increasingly less responsive to FSH and LH. This leads to decreased estrogen production which, as part of the feedback loop, triggers the pituitary to ramp up production and secretion of FSH and LH to try to nudge the ovaries into action, resulting in the typical laboratory findings confirming that menopause is underway: low estrogen and high FSH and LH.

The Experience of Menopause

While the experience of menopause is culturally variable and highly personal, the mean age of menopause for women throughout the world is approximately 51 years with a range of 44-55 years of age considered within normal. If occurring earlier than this, menopause is considered premature, and if later is considered late or delayed menopause. Premature ovarian failure (POF) and surgical menopause (oophorectomy) are medical causes of early menopause. Note that hysterectomy leads to the premature cessation of the menses, however it is not a state of menopause if the ovaries are left intact and are functioning. POF may be caused by autoimmune disorders, thyroid disease, diabetes mellitus, chemotherapy, and radiation therapy, or it may simply occur spontaneously. POF is significantly more common in smokers.

Perimenopause, the time of changes leading up to the menopause, may start as early as ten years prior to the menopause. It is characterized by hot flashes, mood changes, menstrual irregularity (ranging from shorter to longer duration between periods, and lighter or heavier periods to the point of either amenorrhea or flooding), night sweats, headaches, depression, insomnia, changes in libido, vaginal dryness, and urinary changes such as increased frequency and urgency. After menopause many of the vasomotor symptoms of menopause begin to abate, however other symptoms such as vaginal atrophy and dryness, sexual dysfunction, and urinary symptoms worsen, and the risks of cardiovascular and bone disease increase. Other symptoms such as changes in memory, sleep disturbances, anxiety, and depression are inconclusively associated with menopause, and may be more a function of aging that occur amongst both men and women.

Why Menopause? The Grandmother Hypothesis

One theory on the evolutionary biology of menopause – that is, why it occurs as part of the evolution of the human biological experience – is known as the "Grandmother Hypothesis," which simply states that the survival of the young in a tribe or culture is facilitated by the ability of grandmothers to assist in the nurture and rearing of the young without themselves requiring use of enormous community resources, for example, caloric resources that are necessarily consumed during the childbearing cycles of pregnancy and lactation and rather, being able to devote time and energy to the safety and survival of their offspring's offspring. (Hawkes K. The Grandmother Effect. *Nature*. 2004. Vol 428: 128-129). It has been suggested that the veneration and protection of elderly women members of many societies suggests that the grandmother hypothesis may in fact have viability. It is also important to note that in many cultures women do not report the types of uncomfortable and at times debilitating symptoms of menopause reported by western women, thus suggesting that cultural, lifestyle, and dietary factors may all play a role in the varying menopausal experiences of women worldwide. As a result of – or perhaps more accurately – as part of the etiology of the range and severity of symptoms of menopause experienced by

women in the US and other western nations, and also because for so many women in industrialized nations menopause heralds the beginning of an onslaught of medical problems including, for example, cardiovascular disease and osteoporosis, menopause has become pathologized and medically managed.

Common Symptoms of (Peri-)Menopause

Any of the following symptoms may be related to menopause, however, bear in mind, there could be other underlying medical causes. Therefore, it is important to evaluate the symptoms in the context of other symptoms and an individual's overall health. For example, if a woman in her late 40s or early 50s is experiencing night sweats, and her menses is irregular, she is likely perimenopausal, however, if she is experiencing sweats, weight loss, and bone pain she could have a serious medical illness, for example, multiple myeloma (a form of cancer). A compassionate, supportive internal medicine physician, family doctor, midwife, or gynecologist can be a tremendous ally and asset in sorting through symptoms of this normal life change from symptoms of medical illness.

- Irregular periods (amount, frequency)/Cessation of menses
- Emotional lability
- Hot flashes and night sweats
- Vaginal dryness, irritation
- Mood changes/Depression
- Dyspareunia
- Insomnia
- Palpitations
- Decreased libido
- Urinary changes (increased frequency, urgency, incontinence)

Conventional Treatment

One can deconstruct the medicalization of menopause in many ways. Is menopause simply another plot by the capitalist, woman distrusting, post-Baconian medico-pharmaceutical establishment to control women's bodies, cause women to buy into a diseased notion of self, and a way to push products and procedures? Well, not entirely – real changes are occurring and for a complex variety of reasons women in western nations do seem to experience symptoms of menopause and there does seem to be an increased risk of certain conditions as a

result of these changes. However, there is also a very real "medical manufacture" of menopause, and one that has led to overtreatment, overmedicalization, and excessive surgery, all of which may carry serious and even fatal consequences for menopausal women. As we will see in the next lesson, the history of "treatments" offered to women over the past couple of decades, most notably hormonal treatments, has been proven to cause as many (if not more) problems than they solve. Conventional treatments for a variety of complaints associated with menopause are presented in the following lessons in this Unit. HRT is discussed at length in the next lesson.

What's an Herbalist to Do?

We need a campaign: Midwives and herbalists for menopause! We need a revolution of "bush doctors" (pun intended) to help women embrace aging and our bodies joyfully, with grace, flow, movement, elegance, rich sexuality, comfort in our own skin. As I write this I think, "easier said than done." My own gray hairs are starting to come in for real. Not just those first few but enough that a little streak of gray is now noticeable. Do I color my hair? Even some of the famous uber-organic herb women color – and I'm not just talking henna, baby, I'm talking salon color and hair dye. Do I embrace the gray? Do I wear it like Jeannine who went gray in her 20s? Do I color my hair just as women have since antiquity? Is coloring a denial of aging? I figure if I, "Miss Naturale," am facing such a dilemma, it is no wonder that conventionally-minded women color, plump, lipo, diet, nip, tuck, botox, tighten and use all manner of medications and procedures in attempts to avoid the (visible) consequences of aging.

Health inside, beautify outside. Aging is beautiful and we deserve to take care of ourselves. Spa quality treatment ladies! Healthy organic diets, nourishing body care, kind and generous lovers (or, as one gray-haired gorgeous woman told me – learn to give yourself what you want rather than waiting for a man – though she was referring to jewelry, the advice could be applied to sex!). As herbalists we can learn the herbs well that support women in the many changes that aging and menopause bring, from heart and bone health to keeping the yoni soft and moist so that pleasure remains a life-long experience. The remainder of this Unit will get you started down that path of knowledge. And it doesn't hurt to know about natural beauty tips, either. At David Winston's wedding in 2009 I was visiting with Rosemary (Gladstar) and she had plenty of tips about natural hair color if gray isn't your thing (or not yet, anyway!).

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 44

Hormone Replacement Therapy

Learning Objectives

By the end of this lesson you will be able to:

1. Define hormone replacement therapy (HRT) and discuss its uses
2. Explain the findings of the Women's Health Initiative and its impact on the prescribing and use of HRT
3. Discuss the risks and benefits of HRT
4. Define bioidentical hormones
5. Briefly describe the botanicals used as alternatives to HRT

Unit 4 Lesson 44 Hormone Replacement Therapy

Required Reading

Botanical Medicine for Women's Health, 2nd edition (Romm)

- Hormone Replacement Therapy: Risks, Benefits, Alternatives, pp 491-499

Obstetrics and Gynecology at a Glance (Norwitz and Schorge)

- Menopause and Hormone Replacement Therapy

Article: *The Herbalist's Approach to Menopausal Symptom Management* (see Lesson 43)

Principles and Practice of Herbal Medicine (Mills and Bone)

- Review relevant herb monographs from Key Botanicals list below

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using free on-line resources.

Bio-identical hormones

Breast cancer

Colorectal cancer

Conjugated equine estrogens

Estrogen

Hot flashes

HRT

Myocardial infarction

Osteoporosis

Phytoestrogen

Progestin

Selective estrogen receptor modulator (SERM)

Stroke

Thromboembolic event

Vaginal atrophy

Vasomotor instability

Women's Health Initiative (WHI)

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Actaea racemosa

Angelica sinensis

Glycine max

Trifolium pratense

Introduction

Menopause, characterized in part by a decline in estrogen levels, is associated with a number of common symptoms, particularly vasomotor symptoms including hot flashes, night sweats, and sleep disturbances (which are also exacerbated by night sweats). Hormone replacement therapy (HRT), the term applied to menopausal or postmenopausal hormone use with estrogen alone or estrogen combined with progestin or progesterone, has been the mainstay of treatment for these symptoms as well as being touted for the prevention of cardiovascular diseases and osteoporosis, but also associated with this drop in estrogen. Women who have had a prior hysterectomy have been prescribed estrogen alone; women with an intact uterus have typically been prescribed estrogen plus progesterone to protect against the potentially harmful effects of unopposed estrogen on the uterine lining as this has been associated with an increased risk of endometrial cancer.

Estrogens were first synthesized in the 1920s. By the following decade they were being prescribed for the relief of menopausal symptoms. The 1960s book *Forever Young* promulgated the use of synthetic estrogen for the maintenance of youth and femininity and became a driving force behind women's demand for HRT and its use in gynecology, however during the 1970s a connection between endometrial cancer and synthetic estrogen led to a decline in HRT use. The popularity of HRT rose again in the 1980s, with HRT promoted as a panacea for the troubles of menopause and women's aging, purported to prevent everything from hot flashes to heart attacks.

The National Institutes of Health (NIH) established the Women's Health Initiative (WHI) in 1991 to address the most common causes of death, disability and impaired quality of life in postmenopausal women. The WHI, a 15-year multi-million dollar effort, and thus one of the largest prevention studies ever undertaken in the U.S., set out to address the role of HRT in postmenopausal cardiovascular disease, cancer, and osteoporosis. It yielded the most comprehensive evidence to date about the risks and benefits of hormone use after menopause, The trial was composed of two major studies, one assessing the use of estrogen plus progestin for women with a uterus (the Estrogen-plus-Progestin Study), which used Prempro, and the other looking at the use of estrogen alone for women without a uterus (the Estrogen-Alone Study). The findings of the studies are summarized below in Box 1. The WHI Estrogen-plus-Progestin Study had to be halted in July 2002 when researchers discovered that the overall risks of estrogen plus progestin outweighed the benefits, with increased risks of breast cancer, heart disease, stroke, blood clots, urinary incontinence, and all types of dementia (for which the risks were doubled!) in the experimental group. Years long use of estrogen and progestin increased otherwise healthy women's risk of a stroke by 41%, myocardial infarction by 29%, and breast cancer by 24%. Then, in February 2004, the Estrogen-Alone Study (using Premarin) was stopped due to increased risk of thromboembolic events and stroke in the intervention group. The only benefits seen were decreases in colorectal cancer and a possible decreased risk of breast cancer, though this was inconclusive. While the findings from menopausal women are difficult to extrapolate to perimenopausal women, the results of the WHI studies led to a significant decline in the number of physicians prescribing HRT and the number of women willing to use hormones for menopausal symptom relief. Regulatory agencies worldwide are now recommending against their use except for in the smallest doses and for the shortest possible period of time if necessary.

In addition to the increased interest in botanical and nutritional alternatives to HRT, a market has arisen for what are known as "bioidentical hormones" or bioidentical hormone replacement therapy (BHRT), available though compounding pharmacies. There are many misconceptions about the "naturalness" of the hormones in these preparations as well as their safety and efficacy.

Box 1. Summary of Findings from the WHI Trial

Compared with placebo, estrogen plus progestin resulted in:

* Increased risk of heart attack
* Increased risk of stroke
* Increased risk of blood clots
* Increased risk of breast cancer
* Reduced risk of colorectal cancer
* Fewer fractures
* No protection against mild cognitive impairment and increased risk of dementia

Compared with placebo, estrogen alone resulted in:

* No difference in risk for heart attack
* Increased risk of stroke
* Increased risk of blood clots
* Uncertain effect for breast cancer
* No difference in risk for colorectal cancer
* Reduced risk of fracture

Botanical Strategies

The results of the WHI studies have led millions of women to seek natural therapies, which as many as 61% believe are safer than medical options, thus leading to a resurgence of interest in herbs and supplements, particularly phytoestrogens for menopause and billions of dollars in growth for the natural products industry. This interest has also led to a flurry of research on botanicals such as black cohosh, dong quai, and red clover, yielding a host of mixed results, confusion, and questions about the benefits and risks of botanical supplements, for example, whether they are efficacious or whether they are safe to use in women with a history or risk of estrogen-receptor positive breast cancer. The idea of using botanicals and food supplements to boost estrogen levels in an attempt to mimic the actions of HRT and to preempt or offset menopausal symptoms and postmenopausal medical conditions is logical as these conditions can be linked to the body's natural decline in estrogen with age; however, there are many ways to think about supporting the body through menopause, for example, in TCM one might consider nourishing the shen (heart/mind), the yin (which one might actually equate somewhat with estrogen) or the yang (possibly comparable to androgenic effects). Further, TCM and Ayurveda offer a number of botanicals traditionally used as women's tonics, many of which have not been the subject of contemporary research. These additional herbs are listed below and are discussed throughout the course and in *Botanical Medicine for Women's Health*.

Alternatives to HRT: Phytoestrogens, SERMS, and Other Herbs

Phytoestrogens are naturally occurring plant hormones. They possess a steroidal ring similar to the structure of human estrogens, allowing them to weakly bind to human estrogen receptors, and depending upon their binding affinity and with what they are competing, may have estrogenic or antiestrogenic effects. They act as competitive agonists, blocking stronger estrogens from binding except at high concentrations and gently stimulating endogenous estrogen receptors. Ingested in significant quantities (i.e., dietary amounts), they have clear biological activity.

Phytoestrogens are classified chemically into three main categories: isoflavones (found in legumes such as soy, alfalfa, lentils, chickpeas, pinto beans, and lima beans); phytosterols (such as coumestans, found in red clover, sunflower seeds, and bean sprouts); and lignans (found in flax seeds, fruits, vegetables, and whole grains). Lignans are converted by bacteria in the gut to enterodiol and enterolactone, and absorbed by the body to use for synthesizing the isoflavone subtypes: genistein, daidzein, and equol. Genistein behaves like a selective estrogen receptor modulator (SERM) rather than an estrogen, showing affinity for ER. It has been proposed that phytoestrogens found in traditional Asian diets may explain the lower incidence of hot flashes in these populations, particularly when exposure has occurred since childhood. However, studies on phytoestrogenic foods and supplements have yielded only mixed results in the reduction of perimenopausal symptoms, though soy products (soy, miso, tempeh, natto) provide additional health benefits, for example, positive effects on cholesterol levels and possible prevention of osteoporosis with little, if any, risk of adverse effects. A number of herbs have been postulated to have either estrogenic effect or estrogen-like effects and are popular among menopausal women. They may also be recommended by herbalists for the prevention or treatment of common menopausal symptoms. Herbalists, however, have a much wider repertoire of herbs for the prevention and treatment of menopausal symptoms, heart disease, and other problems than the few herbs popularized for treating menopausal symptoms. The herbs discussed in this section are those popularly used as alternatives to HRT; the subsequent lessons in this unit specifically address the symptoms and medical problems associated with perimenopause and menopause, introducing students to the wealth of herbs in the botanical materia medica available for assisting women in making this change of life gracefully and in health. The evidence for efficacy of the following herbs for relieving vasomotor symptoms of menopause or off-setting the effects of declining estrogen on the endocrine, cardiovascular, and skeletal system are contradictory at best, unconvincing at worst. However, it is important to consider several key points:

1. The safety profile of these products is generally excellent.
2. Enhancing the diet with legumes and other healthy food choices is a positive lifestyle choice.
3. Conventional HRT is not effective in preventing heart disease and even increases the risk of stroke and possibly some types of cancer, so women who choose to use herbs instead of HRT are making a reasonable choice as long as care is taken to support the integrity of the skeletal system to prevent osteoporosis.
4. Symptomatic relief of menopausal complaints can be augmented with botanicals from many categories including adaptogens, anhydrotics, nervines, antidepressants, and tonics, and is not limited to phytoesteogens.

5. In spite of inconclusive research on the effectiveness of phytoestrogens in mitigating menopausal complaints, women in cultures where phytoestrogens are a central part of the daily diet experience significantly fewer menopausal discomforts.

Soy (*Glycine max*)

Soy is a traditional part of the Asian diet, and in general, Asian women are reported to experience fewer vasomotor symptoms of menopause than their western counterparts. Other legumes are also rich in phytoestrogens, however soy has been the subject of most of the research. A recent review of the literature on phytoestrogens for vasomotor symptoms of menopause by the Cochrane Collaboration found that of the nine studies that met their inclusion criteria, five had some positive results and four did not. Seven studies indicated that there were no significant differences between the soy intervention and the control group. Three trials found a reduction in the frequency of flashes (one also found a reduction in the frequency of night sweats) and two trials found a reduction in severity of flashes as measured by the Kupperman vasomotor symptom score and a subjective rating by participants. A trial comparing soy extract with estrogen therapy (ERT) reported no difference between ERT and soy extract in the percentage of participants reporting any reduction in their hot flashes at six months. The Albertazzi study, which compared soy powder containing 76 mg/day of isoflavones with casein powder over 12 weeks reported a 45% reduction in the number of hot flashes with soy powder compared with a 30% reduction with placebo powder. Another positive study compared a phytoestrogen-enriched diet that was individualized for each participant by a dietician (exceeding the cutoff point of > 30 mg/day of isoflavones) with a control group that consumed a regular diet with avoidance of phytoestrogen-containing foods. Hot flashes were reduced in severity in both arms of the study but significantly more in the phytoestrogen diet group; because the study was unblended, the possibility of bias must be considered. Overall, there were no side effects in 3 of four safety studies, and the adverse effects in the one study reporting adverse findings were limited to gastrointestinal complaints. Of studies evaluating endometrial growth and vaginal maturation index, one study found no significant effect, another reported a significantly increased vaginal maturation index from baseline compared to flax seed and placebo, and another found the endometrial growth to be negligible compared to ERT. Dosage of 120 mg soy isoflavones daily was considered effective in one of the studies and duration of use was approximately 12 weeks.

Red Clover (*Trifolium pretense*)

Red clover isoflavones are metabolized to genistein and daidzein. The Cochrane Collaborative review of the literature on phytoestrogens and vasomotor symptoms of menopause identified seven trials assessing the effects of red clover extracts on outcomes. Five studies used Promensil, the most popular red clover product for menopause. The frequency of daily hot flashes after treatment with two different doses of Promensil (40 mg/day and 80 mg/day) found no significant difference. One large trial and one small trial evaluating the percentage reduction in the number of hot flashes from baseline reported that there was a significantly greater proportion of women with improvement in hot flash severity (from moderate to severe to none or light) in the Promensil group. Another study found no difference in the change in vasomotor score from baseline to the end of the study. In yet another study of an unspecified red clover it was reported that only 15% of women taking red clover reported hot flashes

versus with 98.1% of women in the placebo group with significant reductions in night sweats as well. In the study using unspecified red clover extract significant changes in all vaginal cytology indexes were noted compared to placebo. Overall there is poor evidence for the efficacy of red clover in reducing the vasomotor symptoms of menopause.

Dong quai *(Angelica sinensis)*

For the past three years, sales of Rejuvex, the most popular health remedy containing dong quai, have been extensive among hundreds of thousands of users in the United States. In the Chinese Materia Medica, dong quai is indicated for disorders of the women's reproductive system including menopausal symptoms, dysmenorrhea and irregular periods, and menstrual cramps. The herb is extracted from the root of Angelica sinensis and is used in traditional Chinese medicine to strengthen the energy that emanates from the blood. The symptoms of "deficient blood energy" listed in Chinese texts are similar to those that Western medicine associates with menopause: menstrual flow abnormalities, nervousness, dizziness, insomnia, and forgetfulness. Dong quai, traditionally prescribed as a tonic for women, is most commonly used as part of a mixture. It is sold in the United States for use alone or as part of newly formulated, nontraditional herbal combinations.

Its chemical constituents include furocoumarins, beta-sitosterol, flavonoids and others. However, its presumed mechanism of action remains unknown. In a double blind randomized controlled study, 71 post menopausal women age 40–65, were instructed to take three capsules three times daily, equivalent to taking 4.5 g of dong quai root daily (standardized to .5 mg/kg ferulic acid), There was no difference in Kupperman index scores of number of hot flashes, endometrial thickness, or vaginal maturation. A recent systematic review found Dong quai to be ineffective in ameliorating menopausal symptoms at the dosages and preparation in the clinical trials reviewed.

It would be valuable to study Traditional Chinese Medicine (TCM) formulas, prescribed in accordance with TCM diagnostic methods. Dong quai does not contain the typically reported phytoestrogens, and the data on stimulation of estrogen receptor–positive breast cancer cells or binding to estrogen receptors are conflicting. Dong quai contains coumarins and can cause bleeding when administered concurrently with warfarin; the furocoumarins contained in Dong quai can cause photosensitization.

Black cohosh *(Actaea racemosa)*

Black cohosh is widely used in Europe and has become increasingly popular in the U.S. as a treatment for menopausal symptoms, most notably vasomotor symptoms and vaginal dryness. Since 1956 over 1.5 million women in Germany have used black cohosh extract, and in 1994 menopausal women in Germany, Scandinavia, and Austria used over 6.5 million monthly dosages of black cohosh extract. The German Commission E endorses the use of black cohosh for climacteric neurovegetative complaints. Studies of black cohosh's physiologic effects have had mixed results. Originally believed to have estrogenic effects, there is now evidence to suggest that the herb is not acting via direct hormonal effects; rather it is now thought that it is working through a neurotransmitter pathway, specifically having serotinergic activity. The use of black cohosh

for menopausal complaints has been widely described in the literature, with numerous published case reports. Remifemin has been the most studied of the black cohosh products. Clinical trials have generally been of limited quality, however recent systematic reviews suggest that black cohosh may be useful in the treatment of menopausal symptoms. Black cohosh is not usually used on a long-term basis, and no clinical trials have lasted for more than 6-12 months. However, the safety profile is reassuring and black cohosh is well tolerated. There appears to be no effect on follicle-stimulating hormone, luteinizing hormone, estrone and estradiol, progesterone, sex hormone binding globulin, the vaginal maturation index, or endometrial thickness. While several case reports of possible hepatotoxicity have been published, a metanalysis of black cohosh safety by Ernst suggests a high level of safety with this herb.

Other Potentially Estrogenic Herbs

Numerous herbs may possess some amount of hormonal activity. Herbs rich in volatile oils, including sage, fennel, hops, fenugreek, and anise have variable amounts of estrogenic activity. Herbalist Amanda McQuade Crawford is a big proponent of sarsaparilla (Smilax ornata) for hormonal support.

Herbs and Cancer

While most phytoestrogenic herbs have not demonstrated appreciable increases in endometrial thickness or vaginal epithelial cell maturation, nor have they been implicated in elevated breast cancer risk, it is prudent to avoid potentially estrogenic herbs in women with a history of estrogen positive cancers or strong risk factors for estrogen sensitive cancer, i.e., family history of breast or endometrial cancer.

Traditional Women's Tonics

Consider herbs that have long been used to strengthen libido, fertility, and female juiciness! Much like ginseng is used as a panacea for men's aging, there are numerous herbs that we can draw on for enhancing reproductive, cardiac, bone, and mental health through menopause and as we age. Here are some classics to consider:

Bacopa

Damiana

Ginseng

Gotu kola

Motherwort

Shatavari

Tribulus

TCM Organ System Principles

- Liver: Uterus gets its blood from the liver where it is stored. Liver also controls the smooth flow of qi, blood needs qi to move. Nourish liver with blood tonics and regulate its function for smooth flow of energy and blood.
- Spleen: Makes blood from food, and holds the uterus in place. Nourish blood with qi tonics, especially in later stages of life.
- Heart: Governs blood, connected to the uterus via bao mai (uterus vessel), emotional aspect of the heart can influence women's function.
- Lungs: Govern qi and are affected by sadness & grief, which can cause qi, fluid, and blood stagnation and suppress menstruation.
- Kidney qi is the spark that drives all other systems and specifically is associated with reproduction and growth and development. Nourish kidneys in early stage of reproductive life and in issues associated with infertility and insufficient growth and development, as well as menopause.

The following extracts give an overview of the most common TCM diagnoses for menopause, the associated symptoms, and commonly used botanicals.

Menopause: Western and Traditional Chinese Medicine Perspectives (Part II)

John Chen, PhD, PharmD, OMD, LAc

Acupuncture Today. May, 2002, Vol. 03, Issue 05

Kidney Yin Deficiency

Symptoms: Delayed menstruation (scanty in amount of ceased completely); hair loss; scanty vaginal discharge; dryness of vagina; dizziness; tinnitus; hot flashes; night sweats; five heart irritable heat (heat and irritable sensation in the chest, palms and soles); hot flashes; insomnia; increased dreams; itchy skin or formication (tactile hallucination with feeling of insects crawling on skin); soreness and weakness of lower back and knees

Suggested botanicals: Anemarrhena phellodendron & rehmannia formula (zhi bai di huang wan) and artemisia & turtle shell decoction (qing hao bie jia tang)

Liver Qi Stagnation

Symptoms: Irritability; nervousness; hypochondriac distention; constipation; palpitations; insomnia; emotional instability; generalized weakness.

Suggested botanicals: Bupleurum & dragonbone combination (chai hu jia long mu tang) and bupleurum & peony formula (jia wei ziao yao san)

Blood Deficiency

Symptoms: Dizziness; hot flashes; sweating; insomnia; dryness of skin; sallow complexion; emotional instability; myalgia.

Suggested botanicals: Tang kuei four combination (si wu tang) and ginseng & longan combination (quai pi tang)

Uprising Deficiency Heat

Symptoms: Hot flashes; bone-steaming sensation; irritability; dizziness; nervousness; emaciation.

Suggested botanicals: Artemisia & turtle shell decoction (qing hao bie jia tang)

Kidney Yang Deficiency

Symptoms: Heavy menstrual bleeding; metrorrhagia or complete ceasing of menstruation; soreness and weakness of the lower back and knees; edema of the face and limbs; cold limbs; cold appearance; loose stools; polyuria; urinary incontinence.

Suggested botanicals: Epimedium, cistanches, aconite, cinnamon bark, deer antler, cordyceps, eucommia

Kidney Yin Deficiency

Symptoms: Weakness and soreness of the lower back and legs; inability to stand for a prolonged period of time; decreased bone mass density.

Suggested botanicals: Rehmania, dendrobium, dong quai, glehnia, asparagus, he shou wu, ligustrum

Classic TCM Blood Deficiency Formulas (Roy Upton, *TCM Gynecology*, 2009)

- Si wu tang (dong quai, peony, ligusticum, rehmania)
- Quai pi tang (Ginseng, astragalus, atractylodes, poria, zizyphus, longan, saussurea, licorisc, dong quai, olygala)
- Dong quai shao yao san (dong quai, peony, poria, atractylodes, alisma, ligusticum)
- Shao yao gan cao tang (peony, licorice)
- Dong quai bu xue tang (astragalus [30 g], dong quai [6 g])
- Ba zhen tang (Dong quai, peony, ligusticum, rehmania, ginseng, licorice, poria cocos, atractylodes)
- Bu zhong yi qi tang (Astragalus, ginseng, bupleurum, cimicifuga, atractylodes, licorice, citrus, ginger, jujube

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 45

Hot Flashes and Night Sweats

Learning Objectives

By the end of this lesson you will be able to:

1. Ask a client about, and understand the impact of hot flashes and night sweats on quality of life

2. Discuss the medical treatments for hot flashes and night sweats

3. List and describe the characteristics of the most common botanical treatments for hot flashes and night sweats as presented in this lesson and the associated required reading

Unit 4 Lesson 45 Hot Flashes and Night Sweats

Required Reading

Botanical Medicine for Women's Health, 2nd edition (Romm)

- Hot Flashes and Night Sweats, pp 487

Principles and Practice of Herbal Medicine (Mills and Bone)

- Review relevant herb monographs from Key Botanicals list below

Supplies

- 1 oz sage tincture
- 1 oz black cohosh tincture
- 1 oz passionflower tincture

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using an on-line medical dictionary.

Formication	HRT	Vasodilatation
Hot flash	Hyperthyroid	Vasomotor
Hot flush	Hypotension	

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Angelica sinensis	*Humulus lupulus*
Cimicifuga racemosa	*Salvia officinalis*
Glycine max	*Trifolium pratense*

Also consider Adaptogens and Nervines. Avoid the heating adaptogens, for example, ginseng. American ginseng and ashwagandha are excellent options to consider as is Schisandra. Ashwagandha is considered slightly warming in Ayurveda, but is an excellent nervine and is not excessively heating. Warming herbs can also be modulated with the addition of slightly cooling herbs.

Introduction

Hot flashes (or hot flushes if you're from the UK), which are experienced by as many as 75% of menopausal women in the US, are a result of the body getting overheated and cooling itself down, just like what occurs with intense exercise, however in the perimenopause, hormonal changes trigger the heat rather than running to second base! Hot flashes are typically preceded by the feeling that one is coming on, followed by the sensation of heat creeping over the face, neck, and upper chest which quickly progresses to a generalized feeling of being overheated. Some women may experience cold sweats, a feeling of insects crawling on their skin (formication – notice the "m" rather than "n" in the spelling coming from the Latin for ant – *formica*), or a feeling of pins and needles instead of or in addition to hot flashes. Women may also become light headed, dizzy or faint from hypotension that can occur during an episode. While hot flashes are not at all dangerous, they can be terribly uncomfortable and cause significant embarrassment depending upon when they occur! Hot flashes typically last from one to several minutes – but to the woman it can feel like it's going on forever! Some women report one or two each day – other women report dozens of hot flashes daily! Clearly there is a theme to the hot flashes, but also a tremendous amount of individual variation in the experience. Night sweats are simply the result of hot flashes with their sweating and cooling phase occurring in a woman's sleep – with the wet part often waking her up to drenched linen.

Many women consider hot flashes the worst of the perimenopausal symptoms. There has been an effort in the alternative health movement to reframe the experience of hot flashes into something positive – for example, energy rushes, power surges, etc. For many women this can be a helpful way to embrace the power and intensity of the changes they are going through, but for others, hot flashes are just plain uncomfortable and they would really like to help lessen their intensity, frequency, or both. While it rarely hurts to reframe something – as Ella Fitzgerald said, "You've got to Ac-Cent-Tchu-Ate The Positive" – for many women, it is also helpful to have concrete tools for being physically comfortable while they go through so many changes!

It's no surprise, I'm sure, to students in this course, that there may be something to the cultural beliefs, dietary, and lifestyle practices of women in the US that lead to women experiencing hot flashes (thus reframing ideas about menopause can sometimes be helpful). The WHO reports that vasomotor symptoms are not as problematic for most menopausal women worldwide as they are for women in the US and other westernized nations.

Here's a breakdown of the rate of hot flashes in a few other countries:

Mayan women 0%

Hong Kong 10-22%

Japan 17%

Thailand 23%

Unit 4 Lesson 45 Hot Flashes and Night Sweats

Key Symptoms

Sensation of heat creeping over the face, neck, and upper chest which quickly progresses to a generalized feeling of being overheated. Typically preceded by the feeling that a hot flash is about to start.

Other symptoms may include:

- cold sweats
- formication
- pins and needles sensation
- light headed, dizzy or faint feelings

Key Diagnostic Findings

Hot flashes are a clinical diagnosis. Rarely, hyperthyroid disease, pheochromocytoma, or carinoid tumor can masquerade as hot flashes. Taking niacin can also cause the sensation of hot flashes.

Conventional Treatment

Conventional treatment strategies are presented in *Botanical Medicine for Women's Health.*

Botanical Treatment Strategies

In addition to general dietary recommendations to benefit perimenopausal women and minimize discomfort, including regular consumption of whole foods rich in phytoestrogens, herbalists recommend a combination of "cooling" herbs, nervines, and adaptogens as well as other herbs if there are concurrent symptoms (for example, insomnia, irritability, or depression). Adaptogens can play an important role in regulating the sympathetic response, thereby reducing stress as a hot flash trigger, and improving the stress response. Below are several sample hot flash formulae that are quite effective. Note that black cohosh tincture is taken as a simple when taking other formulae; this is only 1 dose of black cohosh at 3 mL even if several of the protocol are used (not 3 mL with each formula).

Protocol 1: Hot flashes and Night sweats without accompanying symptoms

• Cool Down Tincture

Mix the following tinctures:

Herb	Amount
Hops (*Humulus lupulus*)	30 mL
American ginseng (*Panax quinquefolium*)	30 mL
Lemon balm (*Melissa officinalis*)	20 mL
Blue vervain (*Verbena officinalis*)	10 mL
Lavender (*Lavendula officinalis*)	10 mL
	Total 100 mL

Dose: 2-4 mL, 2-4 times daily

• Cool Down Tea

Herb	Amount
Sage leaf (*Salvia officinalis*)	1 tsp
Spearmint leaf (*Mentha spicata*)	½ tsp
Lavender flower (*Lavendula officinalis*)	½ tsp

Steep 2 tsp/cup of boiling water for 10 minutes (keep covered while steeping to retain the important volatile oils). Strain. Take 1-2 cups/day divided into ¼ cup doses.

- Take 3 mL black cohosh (or equivalent) twice daily with the tea or tincture.
- Take a warm bath with lavender oil and practice progressive relaxation while going to sleep.
- A small pillow filled with hops and lavender is an ancient sleep remedy.

Protocol 2: Hot flashes and night sweats with anxiety and stress

• Cool and Calm

Mix the following tinctures:

Herb	Amount
Hops (*Humulus lupulus*)	20 mL
Skullcap (*Scutellaria laterflora*)	20 mL
Kava kava (*Piper methysticum*)	20 mL
Ashwagandha (*Withania somnifera*)	20 mL
Licorice (*Glycyrrhiza glabra*)	20 mL
	Total 100 mL

Dose: 2-4 mL, 2-4 times daily.

• Cool Down Tea

Recipe and dosing above.

Protocol 3: Hot Flashes, Night Sweats and Insomnia/ Irritability

• Calm in the Storm

Mix the following tinctures:

Herb	Amount
Hops (*Humulus lupulus*)	30 mL
Passionflower (*Passiflora incarnata*)	30 mL
Bupleurum (*Bupleurum falcatum*)	15 mL
Ashwagandha (*Withania somnifera*)	15 mL
Cramp bark/black haw (*Viburnum opulus/prunifolium*)	10 mL
	Total 100 mL

Dose: 1-3 mL, for 4 doses, staggered over 1-2 hours prior to attempting sleep.

• Take a warm bath with lavender oil and practice progressive relaxation while going to sleep.

• A small pillow filled with hops and lavender is an ancient sleep remedy.

• Take 3 mL black cohosh (or equivalent) bid with the tincture.

TCM and Hot Flashes

In TCM, hot flashes and night sweats are associated with Kidney deficiency, and may be treated with a formula such as Eight Immortals, a Kidney Yin Tonic. Schisandra (wu wei zi) is an adaptogen, and in TCM is used for excessive spontaneous sweating.

Mai Wei Di Huang Wan (Eight Immortals)

Rehmannia	Dioscorea	Peony Bark	Lilyturf
Cornus	Alisma	Poria	Schizandra

Tasty Phytoestrogens! Tofu-Shiitake Stir-Fry

Chop finely:

1″ cube fresh ginger

2 cloves fresh garlic

Blend with:

2 tbsp. soy sauce

Pour this over:

1/2 lb. firm tofu, cut in 1/2″ cubes (increase tofu to taste)

Let this marinate while preparing vegetables below:

1 red bell pepper, cut in triangles

3 - 4 fresh shiitake mushrooms, sliced (3 -5 dried)

½ cup snow peas

Heat a wok with 1 Tbsp oil. Add peppers, stir-fry one minute. Add mushrooms and snow peas, stir-fry one minute. Add the tofu and marinade, stir-fry one minute, then cover and steam until hot. Serve over brown rice.

Additional Strategies

Adjunct strategies and little tips can be really helpful for women bothered by hot flashes and night sweats — preventing them from coming on, cooling the heat wave, and reducing stress and anxiety about the heat!

- Sip cool water with lemon or lime throughout the day; stay well hydrated. Mint sun tea is also great to sip on – and a little spritz to the face or neck now and then can be refreshing, too!
- Deep, slow breathing techniques can help a woman calm down when the heat starts to rise, and is especially helpful for cooling out the emotional heat if tempers start to rise at work and bring on a hot flash!
- Wear light clothing in natural fiber and use peelable layers to control heat and warmth. Keep an extra dry shirt on hand in the event of a drenching sweat!
- Wear cotton or very light woolen knits – silk, thick woolens, and synthetic fibers retain heat. Similarly, sleep under cotton sheets and cotton quilts.
- Avoid spicy foods when you want to avoid hot flashes.
- Include phytoestrogen-rich foods in the diet.
- Avoid caffeine, except green tea (and the occasional piece of dark chocolate!).
- Keep alcohol to a minimum with the exception of an occasional glass of red wine if desired (not more than 1 glass/week).
- Take a cool shower before bed.
- Keep a small fan near the bed and run on a low breeze to keep the air above the bed cool and circulating.
- Keep a set of sheets and change of night clothes near the bed to ease the burden of changing the bedding should a night sweat occur; take care to avoid chills.
- Carry a small spritz bottle with sage and lavender teas or lavender aromatherapy spray to which is added 3-4 drops of sage essential oil for quick cool downs. Mint is also refreshing.

Questions to Ask

Ask about other symptoms: If other symptoms not consistent with hot flashes alone are occurring, for example, symptoms of hyperthyroid disease, a medical evaluation is warranted.

Cautions

Care should be taken in phytoestrogen supplementation for women with a history of risk factors for estrogen dependent cancers.

Case

Identification/Chief complaint: Dora, a 50-year old Caucasian woman tells you, "I am having intense hot flashes and night sweats that are leaving me exhausted by morning. Otherwise, I feel great!"

History of Present Illness: Dora is just a few months past her 50th birthday. Her 50th birthday party was wonderful — so many friends and family members gathered in one place! But one glass of champagne too many and she experienced a hot flash that made her want to rip her clothes off and jump in the pool, and it was a January birthday! She'd been having mild hot flashes ("warm flashes," she laughs) for a few months prior to this episode, but since, they've been getting worse, and she has been awakened by troublesome night sweats that interrupt her sleep and leave her exhausted. She's comfortable with aging and changing, but is feeling miserable about how tired and uncomfortable she is with this new and overwhelming experience of her body.

Past medical history: Appendectomy age 24; ovarian cysts in 20s – L ovary removed; IBS-like symptoms in her 30s during a period of intense stress but no problems since.

Family history: Mother has CVD diagnosed at age 62 (now 79); father had a stroke at age 82 (now age 84).

Social history: Married with 3 grown children; works as a college English teacher; does not smoke, rare occasional alcohol intake; "whole foods" type diet in the past 6 months but healthy version of American diet prior, 1-2 cups of coffee per week; occasionally dark chocolate in a women's energy bar. Treadmill and free weights 3x/ week or 45 minutes each; walks the dogs 1 mile each morning or evening.

Psychiatric history: No history mental/emotional problems. Saw a therapist in her 30s when she had IBS symptoms; this occurred prior to divorcing her first husband.

Gynecologic history:

- History of ovarian cysts and L ovariectomy
- 3 vaginal births in a birthing center in NYC, no complications.
- Menses regular most of her life; irregular and lighter in her mid 40s, now only every 2-3 months and variable light to medium flow.
- Currently enjoys a healthy sexual relationship with her husband.

Review of systems: Poor sleep since night sweats; occasional bloating and gas

Physical exam: Dora is about 5'5" and 130 pounds; she appears in excellent health, looking quite a bit younger than her age – only her gracefully graying hair gives her age away.

Labs/Data: N/A

Case Discussion: Formulating a Plan

What do you know about Dora's case?

We know that Dora is at the age when we'd expect her to be perimenopausal, and given that she isn't experiencing other symptoms beyond irregular menses, also consistent with perimenopause, we can assume her hot flashes are just due to normal changes. She truly does seem comfortable with her body and with the aging process, but these hot flashes are clearly interrupting her sense of comfort. We also know from her family history that there is a significant history of heart disease and that we have an opportunity both to educate her about caring for her heart health and to include cardioprotective herbs in her overall herbal plan.

What do you need to know?

It is important to question Dora about whether she has had her age-appropriate health screenings, for example, for breast cancer and colorectal caner. Is there any personal or family history of hormonally sensitive cancers? Also, given her history we want to know whether she has had an evaluation of her cardiac function (i.e., stress test). We also want specifics on her diet and any supplements she is already taking (she tells you she takes a multivitamin and mineral supplement and a fish oil supplement regularly.)

Protocol and Formulas for Hot Flashes and Night Sweats

Protocol 1 (see sample herbal formulas above)

Hot flashes and Night sweats with no other accompanying symptoms: Use the cool down tincture throughout the day and again just prior to bed; take the tea 1 hour before bed for mild disturbances, or 2-3 cups/day if more troublesome. These can be taken together (the tincture can be added directly to the tea) or separately.

When do you want to see Dora again and what can she expect in terms of improvement?

Dora should see some small improvements in a matter of a few days to a week. Checking in by phone in 1-2 weeks is probably all she needs. If she has any change in symptoms or side-effects (i.e., heavier periods) then she should call you so you can adjust the formula.

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 46

Depression, Anxiety, and Insomnia

Learning Objectives

By the end of this lesson you will be able to:

1. Recognize the signs and symptoms of depression

2. Understand the need for a medical evaluation in moderate to major depression

3. List and describe the characteristics of the most common botanical treatments for depression, anxiety, and insomnia as presented in this lesson and the associated required reading

4. Understand the limits of herbs and natural therapies in cases of severe depression and psychiatric illness

Unit 4 Lesson 46 Depression, Anxiety, and Insomnia

Required Reading

Botanical Medicine for Women's Health, 2nd edition (Romm)

- Insomnia, pp 487 AND Depression and Anxiety, pp 487-488

Principles and Practice of Herbal Medicine (Mills and Bone)

- Review relevant herb monographs from Key Botanicals list below

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using an on-line medical dictionary.

Bipolar disorder

Cognitive dysfunction

Dysthymic disorder

GABA

Generalized anxiety disorder

HPA-axis

Major depressive disorder

Restless leg syndrome

Seasonal Affective Disorder (SAD)

Serotonin

Sleep hygiene

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Albizzia julibrissin

Anemone pulsatilla

Asparagus racemosa

Avena sativa

Bacopa moniera

Camellia sinensis

Crataegus oxyacantha

Eleutherococus senticosus

Eschscholtzia californica

Ginkgo biloba

Humulus lupulus

Hypericum perforatum

Lavadnula officinalis

Leonorus cardiaca

Matricaria recutita

Melissa officinalis

Passiflora incarnata

Piper methysticum

Rosmarinus officinalis

Scutellaria lateriflora

Turnera diffusa

Valeriana officinalis

Withania somnifera

Zizyphus spinosa

This lesson provides a detailed look at depression, and also includes questions on anxiety and insomnia drawn from the required reading materials.

Depression

Depression is marked by feelings of hopelessness, despair, dejection, sadness, and low vitality. It can affect every aspect of a woman's life from home to work, and may be mild to severe. The causes of depression are many and include biochemical imbalances, medical illness, trauma (past or recent), nutritional deficiencies, dietary factors, stress, psychosocial issues, socioeconomic issues, drug abuse, prescription drug side-effects, seasonal changes with low light exposure, and spiritual issues, to name a few. In most cases, a single cause of depression cannot be identified and a combination of strategies is incorporated into a plan for improving mood.

Medical Causes of Depression

From Low Dog. T and Micozzi, M. *Women's Health in Complementary and Integrative Medicine*: A Clinical Guide. St. Louis, MO: Elsevier. 2005, p.171.

- Prescription Medications: α-methyldopa, barbiturates, β-blockers, benzodiazapenes, cholinergic drugs, corticosteroids, estrogens, levodopa, ranitidine, cimetidine, reserpine, progestins
- Endocrine/Metabolic disorders: hyperthyroid, hypothyroid, hyperadrenalism, hypercalcemia, hyponatremia, diabetes, lead poisoning, porphyria, uremia
- Neurologic disease: brain tumor, dementia, Huntington's disease, MS, Parkinson's disease, dominant hemisphere stroke, syphilis, epilepsy, Wilson's disease
- Nutritional: pellagra, B12 deficiency, B6 deficiency, folate deficiency, pantothenic acid deficiency
- Other: alcohol abuse, cocaine, systemic lupus erythematosus, mononucleosis, Lyme disease, hypoglycemia, solvent exposure

Key Symptoms/Diagnosis

The most common forms of depression – major depressive disorder, dysthymic disorder, and minor depression – are subtle distinctions on a spectrum of symptoms with a similar theme. The American Psychiatric Association categorizes major depression as follows in the *Diagnostic and Statistic Manual* (DSM-IV-TR):

Major Depressive Episode

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

Note: Do note include symptoms that are clearly due to a general medical condition, or mood-incongruent delusions or hallucinations.

(1) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). Note: In children and adolescents, can be irritable mood.

(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others)

(3) significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. Note: In children, consider failure to make expected weight gains.

(4) insomnia or hypersomnia nearly every day

(5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)

(6) fatigue or loss of energy nearly every day

(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)

(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)

(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

B. The symptoms do not meet criteria for a Mixed Episode.

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hypothyroidism).

E. The symptoms are not better accounted for by Bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

Major Depressive Disorder: Single Episode

A. Presence of a single Major Depressive Episode

B. The Major Depressive Episode is not better accounted for by Schizoaffective Disorder and is not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.

C. There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode. Note: This exclusion does not apply if all the manic-like, mixed-like, or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.

Major Depressive Disorder: Recurrent

A. Presence of two or more Major Depressive Episodes.

Note: To be considered separate episodes, there must be an interval of at least 2 consecutive months in which criteria are not met for a Major Depressive Episode.

B. The Major Depressive Episodes are not better accounted for by Schizoaffective Disorder and are not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.

C. There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode. Note: This exclusion does not apply if all the manic-like, mixed-like, or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects or a general medical condition.

Many individuals do not exhibit all of these symptoms, yet feel depressed, and experience low appetite, poor sleep, and decreased concentration and decreased overall ability to function at their maximum capacity. They might be diagnosed as having dysphoria (minor depression) and if prolonged for as long as two years, but with fewer symptoms than in major depressive disorder, they may be diagnosed with *Dysthymic Disorder*. Bipolar disorder and seasonal affective disorder (SAD) are amongst other commonly diagnosed types of depression.

Depression is diagnosed clinically on the basis of symptoms and subjective rating systems such as the Hamilton Depression Scale which typically rely on patient reporting of symptom severity. Some women will come to you

to consult with a pre-existing diagnosis, others will just come to you because they "feel depressed", "blue," "down," or use other language to describe this sad feeling state that they just can't seem to shake. Knowing your boundaries and encouraging your client to seek help beyond yours at a level appropriate to her symptoms is an important part of the consulting work you will do.

Conventional Treatment

See *Botanical Medicine for Women's Health* for the conventional treatments for depression. Though often overprescribed, medical treatments for some women, especially those with unresponsive moderate or severe depression, are an important part of treatment for many women and should be reviewed. Causes of new onset or major depression should always be ruled out medically, even if a cause can be identified (for example, sometimes the death of a spouse leads to depression, but there may also be an undiagnosed underlying thyroid disorder).

Botanical Treatment Strategies

While St. John's wort has become a "household" herb for treating depression and is even "prescribed" by medical doctors, this is but one of many herbs that herbalists might select for depression. In fact, the herbalist recognizes that a simple substitution of St. John's wort for a pharmaceutical antidepressant is rarely adequate, particularly if the depression is more than just mild and transient (in which case entirely non-pharmacologic therapies might be ample). The knowledgeable herbal educator looks broadly at the life of her client and takes a multifactorial approach that might include herbs, diet and nutritional counseling, strategies for exercise, time outdoors, journaling, spiritual work, counseling, and perhaps even medications in conjunction with a holistic-minded doctor's care.

The following herbs represent a small number of those that are available for depression and its related symptoms. These herbs may be used singly, but are more often used in combinations formulated for the unique needs and symptoms of the individual.

Albizzia julibrissin
Anemone pulsatilla
Angelica archangelica
Asparagus racemosa
Bacopa moniera
Camellia sinensis
Centella asiatica
Crataegus oxyacantha
Eleutherococus senticosus
Ginkgo biloba
Hypericum perforatum
Lavandula officinalis
Leonorus cardiaca
Rosmarinus officinalis
Wtihania somnifera

Individuals with severe depression, bipolar disorder, and other severe psychiatric/mental health disorders should remain under the care of a medical care provider while consulting with an herbal educator.

Sample Herbal Formulas for Depression

- Depression with Cognitive Dysfunction (i.e. memory loss)

Herb	Amount
Eleuthero (*Eleutherococcus senticosus*)	30 mL
Motherwort (*Leonorus cardiaca*)	20 mL
Bacopa (*Bacopa moniera*)	20 mL
St John's wort (*Hypericum perfoliatum*)	20 mL
Rosemary (*Rosmarinus officinalis*)	10 mL
Total	100 mL

This formula includes herbs with antidepressant and mentally stimulating effects with cerebrovascular blood flow enhancing action to improve memory, learning, and mood.

Dose: 5 mL twice daily. Use for at least 3 to 6 months for best results.

- **Tiger Today, Butterfly Tonight** (Modified depression formula from Amanda McQuade Crawford's *The Herbal Menopause Book*)

Herb	Amount
Black cohosh (*Cimicifuga racemosa*)	25 mL
St. Johns' wort (*Hypericum perfoliatum*)	25 mL
Eleuthero (*Eleutherococcus senticosus*)	25 mL
Lavender (*Lavendula officinalis*)	10 mL
Blue vervain (*Verbena officinalis*)	10 mL
Licorice (*Glycyrrhiza glabra*)	5 mL
Total	100 mL

This formula is designed to regulate the HPA axis, improve stress adaptation responses, lift the spirits, directly treat depression, and help to regulate hormonal activity.

Nutritional Supplements

Diet and nutrition can play a major role in depression. The following nutrients and supplements may play a role in the prevention and treatment of depression:

Vitamin D

Essential fatty acids/ Omega-3 Fatty Acids

B vitamins

SAMe

Additional Therapies

Art therapy

Attention to creating a healing environment

Counseling

Exercise, Yoga, Dance

Journaling

Laughter

Light

Massage

Music therapy

Relaxation and Stress Management

Spirituality or religion

Questions to Ask

It is not your role to diagnose depression (or any conditions!). However, it is important that you ask these questions: If this woman is not getting professional help for severe depression or suicidal thoughts, you may be the only one to know she is having these thoughts/feelings, and thus may be the only one to guide her toward professional help. It is essential that you document such conversations and document any medical referrals you make. Also, if you feel the client is at risk to herself, you may inform a family member. If the client is under the age of 18, it is mandatory that you report this information to a parent or guardian and document that you did so. If your client is a threat to others (i.e., stating that they have a plan to harm someone, you have a legal responsibility to report this to appropriate authorities.

- Do you have a history of psychiatric illness in your family (if yes, what)?
- Have you ever taken medication or been hospitalized for any emotional or mental problems?
- Have you ever considered suicide? If the answer is yes: Have you ever made a plan for how you would do it? When was the last time you had theses thoughts? Have you ever received professional help for depression or suicidal thoughts? Have you ever attempted suicide?

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 47

Uterine Bleeding

Learning Objectives

By the end of this lesson you will be able to:

1. List the possible causes of uterine bleeding in various stages of a woman's life

2. Define and describe dysfunctional uterine bleeding

3. Differentiate between normal uterine bleeding and hemorrhage and list the condition/situations that require medical care/urgent medical attention

4. List and describe the characteristics of the most common botanical treatments for dysfunctional uterine bleeding as presented in this lesson and the associated required reading

Unit 4 Lesson 47 Uterine Bleeding

Required Reading

Botanical Medicine for Women's Health, 2nd edition (Romm)

- Dysfunctional Uterine Bleeding, pp 236-244

Principles and Practice of Herbal Medicine (Mills and Bone)

- Review relevant herb monographs from Key Botanicals list below

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using free on-line resources.

Abnormal uterine bleeding (AUB)

Anemia

Antihemorrhagic

Astringent

Cervical cancer

Dysfunctional uterine bleeding

(DUB)

Ectopic pregnancy

"Flooding"

Hemostatic

Leiomyoma

Menorrhagia

Miscarriage

Placental abruption

Postpartum hemorrhage

Retained placenta

Uterine fibroids

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Achillea millefolium

Alchemilla vulgaris

Capsella bursa pastoris

Caulophyllum thalictroides

Cinnamomum

Erigeron canadensis

Geranium maculatum

Gossypium

Hamamelis virginiana

Hydrastis canadensis

Myrica cerifera

Quercus spp.

Panax notoginseng (Tienchi ginseng)

Trillium erectum

Vitex agnus castus

Introduction

Bleeding is a natural fact of life for women even in the absence of any gynecologic or obstetric problems — first during normal menstruation, then during and after childbirth, and finally during menopause when many women experience erratic cycles and sometimes heavy unexpected flows commonly referred to as "flooding." Some women, in addition, experience a variety of gynecologic or obstetric problems that can lead to increased incidence and episodes of vaginal or uterine bleeding. Common causes of uterine bleeding are listed in Box 1.

Box 1. Some Common Causes of Vaginal/Uterine Bleeding

*Note: Those conditions marked with a * require urgent medical attention*

GENERAL GYNECOLOGIC

Anovulatory bleeding
Dysfunctional uterine bleeding
Endometriosis
Leiomyomas (fibroids)
Menorrhagia
Polyps
Skin tags

PREGNANCY/POSTPARTUM

Ectopic pregnancy*
Miscarriage*
Placental abruption*
Postpartum hemorrhage*
Retained placenta*
Uterine rupture*

MENOPAUSAL

Atrophic vaginitis
Endometrial hyperplasia
"Flooding"

INFECTION

Endometritis*
Cervicitis*
Sexually transmitted diseases*
Bacterial vaginosis
UTI
Pelvic inflammatory disease*

CANCER*

Cervical cancer*
Endometrial cancer*
Adenocarcinoma*
Vulvar cancer*

MEDICATIONS/HERBS

Oral contraceptives, Copper intrauterine device, Depo-Provera, HRT, Anticoagulants*, Tamoxifen, Corticosteroids, Chemotherapy, Antipsychotic drugs, Dong quai

OTHER

Coagulation disorders
Foreign body (i.e., IUD, tampon, menstrual sponge)*
Hypothyroidism
Sexual abuse
Sexual intercourse
Trauma*
Diabetes mellitus
Cushing disease
Liver disease

Thinking through gynecologic and obstetric causes of bleeding requires us to think in context of the woman's life:

- How old is the woman?
- Is she menstruating?
- Does she have regular menstrual cycles?
- Is she/ could she be pregnant? Postpartum?
- Does she have a history of uterine fibroids or polyps?
- Has she recently had intercourse?
- Has she gone through menopause? Is she perimenopausal?
- Has she been screened for cervical cancer? When? What were the results?
- Does she have risk factors for endometrial or cervical cancer?
- When was her last gynecologic exam?
- Is she currently or has she recently been taking any medications or herbs that could increase bleeding (i.e., HRT, coumadin, medicated IUD, Depo-Provera, dong quai)?

Why is it important for herbalists to know how to address common, benign causes of vaginal bleeding? Because hysterectomy is one of the most commonly recommended treatments for vaginal bleeding, with as many as 650,000 hysterectomies performed annually in the US (that's 12 per second!), more than half of which are considered unnecessary! By age 65, approximately 37% of women will have undergone a hysterectomy, even for relatively benign conditions such as fibroids. Approximately 650 women die from the procedure every year. While women should absolutely be able to benefit from needed hysterectomies, and the choice should be theirs, women should not be coerced into hysterectomies and should be supported in seeking effective and safe alternatives to surgery and drugs for benign conditions.

Key Symptoms

Symptoms will vary from painless vaginal bleeding in mild to moderate amounts to the presence of a variety of symptoms such as pain, discharge, specific timing of the bleeding, etc., depending on the cause of the bleeding. The symptoms can provide important clues to the causes of the bleeding and should be discussed with a qualified health professional to rule out insidious or pathologic etiologies.

How Much Bleeding Is Too Much?

Excessive vaginal bleeding is usually considered soaking more than two full-sized menstrual pads in 30 minutes or less, or any continuous vaginal bleeding. Signs of excessive blood loss requiring immediate medical care include dizziness, light-headedness, weakness, fainting, hypotension, rapid heart rate, shortness of breath, pallor and constitute a potential medical emergency. CALL EMS (911).

During pregnancy, any bleeding needs to be evaluated by a midwife or obstetrician. Bleeding about equivalent to a normal menstrual period is appropriate and expected during the postpartum.

Conventional Treatment

Treatment will depend entirely on the cause of the bleeding and may range from no intervention to medical to surgical treatments.

Botanical Treatment Strategies

As stated above, it is important to consider uterine bleeding in the context of a woman's age, other symptoms, risk factors, and medical history in order to come up with the most appropriate strategy for addressing it. See Box 1 for causes of vaginal bleeding absolutely requiring medical attention or immediate medical intervention. Benign causes of vaginal bleeding, for example, uterine fibroids, DUB, and benign hormonal dysregulation, can sometimes be addressed solely with botanical and nutritional interventions; pathologic causes of uterine bleeding require medical or surgical intervention and in some cases, herbs and supplements can be used as adjuncts to these other interventions. In some cases, even benign conditions can become pathologic, requiring more aggressive intervention, for example, uterine fibroids that cause excessive bleeding with significant blood loss and accompanying chronic stress and exhaustion. In this case, a woman may still choose a medical intervention, though botanicals and supplements may be attempted first as long as the woman's health and safety are not jeopardized. Chronic blood loss can lead to anemia, which in itself can cause debilitating weakness and fatigue; untreated anemia can even lead to cardiac strain as the heart tries to increase cardiac output by increasing the rate to deliver oxygen to the body using oxygen poor blood (low hemoglobin equals poor oxygen content). Treatment of chronic uterine bleeding should be accompanied by supplementation to treat and prevent anemia. Note that this lesson focuses on uterine bleeding; treatment of fibroids, endometriosis, and other conditions, as well as anemia, are addressed in other lessons. Questions in this lesson draw on information in related lessons.

Risks/Cautions

Untreated, uterine hemorrhage can lead to shock and death! Further, certain causes of bleeding, for example, most of the obstetric causes, some of the infective causes, and cancer, if untreated, can also lead to severe morbidity and mortality. Unless the cause is obviously benign, all vaginal/uterine bleeding should be evaluated by a qualified health professional.

Case 1

This is a true story. One afternoon I was working at my desk, completing client charts, when my phone rang. A woman with a heavy southern accent identified herself as a 56-year old woman from North Carolina. She got my name from a website associated with a conference at which I'd taught a lecture on common gynecologic complaints. She asked me if I had a few minutes to consult with her; I told her I'd be glad to listen to her problem but that we'd likely need to set up a time for a phone consultation. She proceeded to tell me about vaginal bleeding that had begun six months prior, and which was now accompanied by a constant and very embarrassing foul vaginal odor. I asked her about abnormal pap smears, menopause, etc., and she told me she had stopped menstruating about five years ago and had not been to a gynecologist in over 15 years. She expressed extreme anxiety about gynecologic exams, and refused to be examined by a man. I told her that her condition sounded very concerning to me over the phone and that I would absolutely not be able to consult with her until she'd had a formal pelvic examination. I encouraged her to seek out a nurse-midwife in her community as she would likely find this to be a more sensitive and compassionate exam. I impressed upon her the potential severity of her symptoms and urged her to seek an appointment immediately. She agreed. About 10 days later I heard back from this woman. She'd just undergone a hysterectomy. When she went into the exam by the CNM, she hemorrhaged on the table getting the Pap smear because her cervix was so friable and damaged from cervical cancer. This cancer had invaded well into the uterine cavity; fortunately, her surrounding pelvic tissue was spared. She was greatly appreciative of how seriously I took her symptoms and felt her "life had been saved." There are times when it is tempting to minimize symptoms, treat with herbs first and ask questions later, or assume the body knows how to take care of itself. Well girls, in real life real cancer happens and it is our job to take vaginal bleeding, especially in a postmenopausal woman, as seriously as the condition might be!

Case 2

(This case forms the basis for the clinical questions in the assignment section)

Identification/Chief complaint: I am having heavy vaginal bleeding that is leaking onto my clothes because I cannot predict when it is going to happen. This is very embarrassing.

History of Present Illness: Sandra is a 51-year old perimenopausal woman who has been experiencing erratic menstrual cycles for six months, night sweats, and periodic episodes of sudden onset vaginal bleeding. Once every 2-4 weeks or so she experiences a flood of vaginal bleeding that initially soaked through her clothes but

now she wears a pad every day to prevent this embarrassing experience. She reports that she fills one pad when the "flood" happens and then has to change her pad every four to six hours; the bleeding generally lasts 1-2 days and then stops. She cannot predict when it is going to happen. She states that is it not particularly associated with anything she can identify, for example, it does not occur after intercourse or exercise – "it just happens randomly."

Past medical history: no major medical illnesses other than hypothyroidism. Her hypothyroidism is well controlled; she has her TSH and fT4 levels checked periodically, is on an appropriate dose of synthoid, and has no hypothyroid symptoms.

Family history: Her mother and aunt both had hysterectomies at menopause due to heavy vaginal bleeding, however none had problems with excessive menstruation and Sandy tested negative for blood dyscrasias in her 20s when she also experienced heavy menstruation.

Social history: Happily divorced for 5 years and dating a "wonderful man" for 2 years; sexually active and uses condoms for protection; has 3 college aged children; does not smoke; drinks red wine 1-2 glasses/week, no drugs (though she did smoke marijuana once recently on a vacation to Jamaica with several of her girlfriends), works as an interior designer and makes a comfortable living. Feels safe in her current relationship and maintains a good friendship with her ex-husband.

Psychiatric history: None

Gynecologic history: Menarche age 14 years without problems, 3 normal vaginal births without complications, no abortions, no STIs, used OCs for birth control from aged 25-40, then an IUD until 2 years ago. Now just uses condoms. Had erratic menses and perimenopausal symptoms for about 6 months and welcomes the menopause and liberation from bleeding and risk of getting pregnant.

Review of systems: Occasional insomnia usually because of night sweats; occasional constipation that she knows how to resolve with dietary changes (and only occurs once every few months), allergic to mangos (gets a rash around her mouth).

Physical Exam

General: a comfortable appearing woman with a healthy, full sized but not overweight appearance

Skin: moist, warm, good circulation, tone, and color

Neck: no lymphadenopathy and no thyromegaly

Cardio: regular rate and rhythm, no murmurs, rubs, or gallops

Pulm: clear to ausculation bilaterally, no wheeze

Abd: soft, non-tender, non-distended, positive bowel sounds, no hepatomegaly

Extremities: warm and well-perfused, good capillary refill, no edema

Gyn: normal gynecologic exam

Labs / Data: Hematocrit 40, Hemoglobin 13.1

Sandra recently had a uterine ultrasound that showed a slightly thickened endometrium but a biopsy was completely normal. She had minimal small uterine fibroids and normal ovaries. A Pap smear was normal.

Blood work showed perimenopausal levels of estrogen, FSH, and LH. All other findings were normal.

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 48

Vaginal Dryness, Uterine Prolapse, Urinary Incontinence, and Low Libido

Learning Objectives

By the end of this lesson you will be able to:

1. Explain the physiologic changes that occur with menopause that can lead to vaginal atrophy, dryness, decreased libido, urinary incontinence, and sexual dysfunction.

2. Discuss the psychosocial and emotional causes and implications of sexual dysfunction on a woman's life, self-concept, sexual experience, and intimate relationships.

3. Understand the mechanics and possible treatments of uterine prolapse.

4. List and describe the characteristics of the most common botanical treatments for vaginal dryness, vaginal atrophy, and sexual dysfunction as presented in this lesson and the associated required reading.

5. Teach women ways to keep their vaginal tissue healthy, their creativity vibrant, and their sexuality alive and well.

Unit 4 Lesson 48 Dryness, Prolapse, Incontinence, & Libido

Required Reading

Botanical Medicine for Women's Health (Romm)

- Vaginal Dryness and Atrophy (posted to course website)
- Low Libido and Sexual Dysfunction in the Perimenopausal Woman (posted to course website)

Obstetrics and Gynecology at a Glance (Norwitz and Schorge)

- Urinary Incontinence
- Pelvic Organ Prolapse

Principles and Practice of Herbal Medicine (Mills and Bone)

- Review relevant herb monographs from Key Botanicals list below

Article: *Healing a Uterine Prolapse* (Romm)

Powerpoint and teleconference: *Botanica Erotica* (Romm)

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using free on-line resources.

Aphrodisiac
Atrophic vaginitis
Chronic pelvic pain
Cystocele
Dyspareunia
Estrogen
Libido
Lubrication
Orgasmic dysfunction
Pelvic floor exercises
Prolapse
Phytoestrogen
Stress urinary incontinence
Urodynamics
Vaginismus

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Althea officinalis
Asparagus racemosa
Calendula officinalis
Cannabis spp.
Cimicifuga racemosa
Dioscorea villosa
Epimedium grandiflorum
Ginkgo biloba
Glycine max
Humulus lupulus
Hypericum perforatum
Lavendula officinalis
Lepidium meyenii
Linum usitatissimum
Medicago sativa
Panax ginseng
Piper methysticum
Ptychopetalum olacoides
Symphytum officinale
Theobroma cacao
Tribulus terrestris
Trifolium pratense
Turnera diffusa

Introduction

Yoni: the sacred gate, the door of pleasure; the entrance to the universe.

Our bodies inevitably change with age. While we can be just as sexy at 45, 55, and older and we're way smarter and more sophisticated than when we were 20 and 30, for many women the actual physical matrix of the vaginal tissue is less full, plump and juicy than it was prior to menopause and this can lead to a frustrating and painful set of conditions as a result. Chalk it up to declining estrogen levels again!

This lesson is about keeping it juicy, vital, and keeping sexual energy flowing. It's also about conditions that commonly occur as estrogen declines after menopause – uterine prolapse, vaginal atrophy, sexual dysfunction, and urinary stress incontinence. As vaginal atrophy and sexual dysfunction are explained in *Botanical Medicine for Women's Health*, the explanatory text in this lesson emphasizes prolapse and incontinence. The assessment for this lesson covers all of these topics as covered in all of the required reading.

As women we are often better at taking care of everyone else – our kids, friends, partners, lovers, parents, siblings – better than ourselves. So this lesson is not only filled with ideas for helping our clients keep it juicy, but is also meant to serve as a reminder to us to take care of ourselves – either ahead of time if you are premenopausal, or starting right now if you are easing into the wisdom years. And some conditions, such as uterine prolapse and urinary incontinence don't just happen in later years; they can begin or occur even in one's 20s, for example, not uncommonly after giving birth! And loss of libido can be caused by depression, low thyroid, or other medical conditions. So this lesson applies to women of all ages.

As I write this my silver hairs are coming in, my fertile times of the month – well, they're still juicy but they're not as overflowingly fertile as they were in my 20s and 30s and even my moontimes are lighter and shorter. My creativity is more of a constant steady hum than a predictable monthly watershed of fertile, procreative energy that I could channel in any number of directions. I am past baby-making but I remind myself to nourish myself just as much as I would have nourished myself if I were growing a baby, be gentle with my body as I grow up, honor the gray and the wisdom. I also remind myself to not let the concept of age keep me from feeling young and being young, to let my sexiness show and enjoy knowing that it is now combined with elegance and self-knowledge, and to keep using it so I don't lose it!

Key Symptoms

Women experiencing changes in the integrity, volume, or location of their pelvic organs and tissue are likely to experience any combination and number of the following symptoms:

- Vaginal dryness and thinning (atrophy)
- Vaginal itching and burning (vaginitis)
- A nagging, dragging feeling in the pelvis or the feeling that something is in the vagina (like a dry tampon in there sort of feeling), or that "Everything is just going to fall out." Or something pink (vaginal wall; cervix/uterus) actually protruding from the vagina!
- Urinary frequency; involuntary loss of urine (incontinence) when coughing, sneezing, or jumping
- Painful intercourse (dyspareunia)
- Slight bleeding after intercourse
- Increase in vaginal infections

The above symptoms are likely to make any woman less interested in having sex, and to complicate matters, hormonal changes around menopause decrease some women's sexual desire. The old saying "if you don't use it you lose it" is apropos when it comes to vaginal dryness – having a sexy sex life (even if circumstances or personal choice dictate an autoerotic life!) helps keep the vaginal tissue lubricated, helping to prevent the above symptoms. So it's a vicious cycle.

Uterine Prolapse

Pelvic organ prolapse is the herniation (slipping down or "pooching out") of one of the pelvic organs including the uterus, vaginal apex, bladder, rectum, and its associated vaginal segment from its normal location. Twenty-four percent of women in the US have some type of pelvic floor disorder. The Women's Health Initiative reported 34 percent of women had anterior vaginal wall prolapse, 19 percent had posterior vaginal wall prolapse, and 14 percent had uterine prolapse on physical examination. Uterine prolapse ranges from mild to severe. Mild cases generally cause a small amount of annoyance whereas severe cases can be debilitating. They are described on a scale of 0-4, with 0 being no prolapse and 4 being a protrusion of the displaced part out of the vaginal introitus. Pelvic organ prolapse occurs as a result of ligament and muscle overstretching due to a number of possible factors from obesity to multiple pregnancies or vaginal birth of a large baby. Pelvic organ prolapse leads to over 200,000 procedures for surgical repair procedures each year with an annual cost (or profit, depending on how

one looks at it!) of more than a billion dollars. While surgery is often beneficial in severe cases, it is done for mild and moderate cases as well. Surgery is associated with recurrence and re-operation rates are as high as 30 percent, with some surgical centers reporting re-operation in over 50 percent of cases.

Some Common Types of Pelvic Organ Prolapse

Cystocele	Hernia of the bladder with associated descent of the anterior vaginal segment.
Uterine prolapse	Descent of the uterus and cervix into the lower vagina, to the hymenal ring, or through the vaginal introitus.
Vaginal vault prolapse	Descent of the vaginal apex (following hysterectomy) into the lower vagina, to the hymenal ring, or through the vaginal introitus; often accompanied by enterocele.
Rectocele	Hernia of the rectum with associated descent of the posterior vaginal segment.

Urinary Incontinence

Urinary incontinence is the involuntary loss of urine. Using the definition of any urine leakage at least once in the past year, estimates of the rate of urinary incontinence range from 25 to 45 percent. Weekly urine leakage was reported in 10 percent of women aged 30 to 79 years, and the prevalence increases with age. In a large US survey of non-pregnant women, moderate or severe urinary incontinence (at least weekly or monthly leakage of more than just drops) was reported to affect 7 percent of women ages 20 to 39, 17 percent ages 40 to 59, 23 percent ages 60 to 79, and 32 percent age ≥ 80 years. Only 45 percent of women who reported urinary incontinence occurring at least once a week sought care for their symptoms. Women with incontinence often live with unresolved physical, functional, and psychological challenges and diminished quality of life.

Types of Urinary Incontinence

Stress	Leakage of small amounts of urine during physical movement (coughing, sneezing, exercising).
Urge	Leakage of large amounts of urine at unexpected times, including during sleep.
Overactive Bladder	Urinary frequency and urgency, with or without urge incontinence.
Functional	Untimely urination because of physical disability, external obstacles, or problems in thinking or communicating that prevent a person from reaching a toilet.

Overflow	Unexpected leakage of small amounts of urine because of a full bladder.
Mixed	Usually the occurrence of stress and urge incontinence together.
Transient	Leakage that occurs temporarily because of a situation that will pass (ie. infection, taking a new medication, colds with coughing).

Urinary incontinence can sometimes be an early sign of a serious underlying condition, for example, neurologic disease such as multiple sclerosis, or cancer. Therefore, the symptoms should never be dismissed simply as an age-related inconvenience.

Key Diagnostic Findings

Most of the "conditions" discussed in this lesson are diagnosed on the basis of history and clinical findings. Should menopausally-related symptoms occur in women who are not yet of expected menopausal age, then hormone testing is appropriate to assess for premature ovarian failure. Women experiencing loss of libido should be screened for hypothyroid as well as for depression. Younger women with uterine prolapse have more likelihood of reversion of the uterus to its normal position than do menopausal women as the tissue is more elastic premenopausally. On physical exam, atrophic vaginitis is recognizable by the thin and friable nature of the vaginal tissue; there may be fissure or small rent in the vaginal mucosa and digital or speculum vaginal exam may be painful or lead to a small amount of bleeding. The gloved finger or speculum should be well-lubricated and a small sized speculum may be used unless the woman is obese in which case a larger speculum may be necessary for an effective exam. Uterine prolapse is identified by digital vaginal exam by the location/distance of the cervix or uterus from the vaginal introitus.

Conventional Treatment

Conventional gynecologic treatment for atrophic vaginitis consists of hormone replacement therapy which is effective both taken orally and applied topically (usually vaginally) with the latter having fewer systemic effects and therefore slightly less cancer risk than oral HRT, and topical applications in the form of creams and lubricants. For urinary incontinence and pelvic organ prolapse women may be prescribed weighted vaginal cones which can be quite effective at helping women to isolate and exercise pelvic floor muscles, as well as surgery. Surgery can be very effective but often needs to be redone in as few as five and often ten years as the tissue, already weakened, will often re-prolapse. Further, sometimes surgery fixed the prolapse or the incontinence, but leads to chronic pelvic pain or abdominal pain, and sometimes even new problems with urinary incontinence or retention, bowel problems, nerve problems, and problems with sexual function, so the risks must be carefully weighed against the benefits on an individual basis. Women with only very mild uterine prolapse may choose to forego surgical intervention and use exercises to improve pelvic tone; simple devices such as pessaries can be used in women with moderate prolapse to provide mechanical support to the uterus. Surgery is optimally reserved for severe cases of prolapse. Care must be taken with constant use to avoid the development of rectovaginal or vesiculovaginal fistulas.

Botanical Treatment Strategies

Botanical treatment relies on a number of strategies from the use of phytoestrogens to topical vaginal lubricants, vulneraries, adaptogens, aphrodisiacs, nervines, antidepressants, yin tonics, and antimicrobials for atrophic vaginitis, low libido, and sexual dysfunction. There are numerous factors that contribute to sexual dysfunction (See Box 1); the use of botanicals should be adjusted individually once the factors contributing to the client's underlying causes are identified, though some herbs may be included universally. While herbs may play some small role in the treatment of urinary incontinence and uterine prolapse, the role is really more supportive than directly therapeutic as these are mostly mechanical issues, however, when secondary to or accompanied by vaginal atrophy, the use of phytoestrogens may make a more important contribution. Botanical treatment strategies are presented in the accompanying and required reading and audio materials.

Woman Safe Center, Ann Arbor, MI

Perhaps one of the most important aspects of helping women with the conditions discussed in this lesson, and most significantly, sexual dysfunction, is creating a safe space for the woman to be able to openly discuss her sexual experience, fears, anxieties, embarrassment, concerns, and the impact of the problem on her life and relationships. Discussing the intimacies and intricacies of one's sexual experience is a very private affair. It can be awkward, and depending upon the age and background of the woman, quite foreign. Help the woman to find her own language, provide language if you need to help her express herself, use anatomical images to help her overcome her awkwardness, listen more than talk, and provide a great deal of reassurance and encouragement. Assure her that the conversation is both safe and confidential. Let her know that her problems are not unique and that there are solutions. It is a great gift to teach women that they have a right to pleasure- at any age – and to safety at all ages, and that they are supported by a community of women around the world who have endured and overcome sexual and gynecologic problems. And remember, for some women, topics like masturbating are just out of the realm of their comfort zone but are still important to discuss with great sensitivity and perhaps save certain topics for subsequent visits after the initial consultation when a greater trust and ease has been established in the relationship.

Box 1. Factors influencing Female Sexual Function

Biologic/physiologic factors

- Neurologic disease
- Cancer
- Urologic or gynecologic disorders
- Medications
- Endocrine abnormality

Psychological factors

- Depression/anxiety
- Prior sexual or physical abuse
- Substance abuse

Interpersonal factors

- Relationship quality and conflict
- Lack of privacy
- Partner performance and technique
- Lack of partner

Sociocultural factors

- Inadequate education
- Conflict with religious, personal, or family values
- Social taboos

Box 2. Risk Factors for Uterine/Pelvic Organ Prolapse

Vaginal parity

- Pregnancy
- Labor
- Vaginal birth
- Large baby
- Prolonged labor
- Forceps delivery

Race

- White women > Blacks and Asians

Age/Estrogen Levels

- Lower estrogen levels are associated with increased rates of pelvic organ prolapse

Chronic Conditions

- Constipation
- Standing for long periods of time on a regular basis
- Heavy lifting
- Chronic cough (i.e., COPD)

Connective Tissue Disorders

- Inherited conditions such as Ehlers-Danlos or Marfan syndromes
- Chronic steroid use

Additional Treatment

- Pelvic floor exercises to improve tone, reduce prolapse and incontinence, and improve the intensity and quality of orgasms
- Essential fatty acids
- Zinc and vitamin C for tissue healing and integrity
- Weighted vaginal cones and biofeedback training for uterine prolapse
- Counseling/therapy/sex therapy for sexual dysfunction
- Masturbation to enhance or substitute for sexual activity with a partner to improve sexual function and keep the yoni lubricated and vital
- Yoga
- Tantra

Questions to Ask and Risks/Cautions

The main things to be aware of in the postmenopausal age group and with the symptoms that are likely to present – vaginal infections and bleeding – are cancer and HIV. Any postmenopausal woman with vaginal bleeding, other than the smallest amount of spotting in a woman with known atrophy which leads directly to some amount of tissue fissures that can bleed, should be evaluated for gynecologic cancer. Monogamous women over 65 are one of the fastest growing populations of HIV positive individuals in the US – exposure from partners who are clearly not monogamous or sexual relations with a partner with HIV who does not know he (or less likely she) has the virus. So don't dismiss the need for an HIV test in women with recurrent vaginitis, candida infection, or other recurrent infectious symptoms in this population and don't assume a marriage is monogamous even after 45 years of "monogamous" marriage for both partners! All women experiencing sexual dysfunction should be screened for thyroid problems, depression and anxiety, and for domestic or relationship abuse.

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 49

Caring for the Heart

Learning Objectives

By the end of this lesson you will be able to:

1. Discuss the prevalence of heart disease in women, the social implications, and the role of menopause in cardiac conditions in women

2. List and describe the characteristics of the most common botanicals for cardiovascular disease prevention and treatment as presented in this lesson and the associated required reading

Unit 4 Lesson 49 Caring for the Heart

Required Reading

Botanical Medicine for Women's Health (Romm)

- Prevention of Cardiovascular Disease in Postmenopausal Women (posted to course website)

Principles and Practice of Herbal Medicine (Mills & Bone)

- Cardiovascular System
- Review relevant herb monographs from Key Botanicals list below

Supplies

- 1 ounce hawthorne tincture
- 1 ounce hawthorne berries

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using free on-line resources.

Angina

Arrhythmia

Cerebrovascular Accident (CVA)

Coronary Artery Disease (CAD)

Congestive heart failure (CHF)

Diabetes mellitus

Dyslipidemia

HRT

Hyperlipidemia

Hypertension

Modifiable risk factors

Myocardial infarction (MI)

Obesity

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Allium sativum

Angelica sinensis

Cimicifuga racemosa

Coleus forskohlii

Commiphora mukul

Convallaria majalis

Cratagus oxyacantha

Cynara scolymus

Leonorus cardiaca

Medicago sativa

Salvia miltiorrhiza (dan shen)

Taraxacum officinale

Trigonella foenum-graecum

Viburnum opulus

Introduction

The heart is both a precious life-sustaining organ and a metaphor for the love, joy, and pain we feel. It is where we literally, and metaphorically, hold our joy and pain. The emotional experiences of our lives do have an impact on the heart; thus we have expressions such as heartache and heartbreak for our sorrows and losses and wearing our heart on our sleeves for our vulnerability.

Among the more serious aspects of menopause is the increased risk of heart disease that women face – in fact, until menopause, women's risk of heart disease is far less than men's but after this change of life, we catch up quickly, so that by age 55 women have higher cholesterol levels on average than men. Cardiovascular disease is responsible for more deaths in women than from diabetes, all forms of cancer, pneumonia, accidents, and HIV/AIDS and more than 10 additional conditions combined. Further, high systolic blood pressure and high fasting glucose levels are higher risk factors for cardiovascular disease in women than men, and smoking increases the risk of heart disease in women far more than it does in men. The most frightening news is that the first cardiovascular event is often fatal.

But menopause is not a "death sentence" – there is a tremendous amount that can be done to promote heart health and mitigate the risks of disease. And it's really not that complicated. It does, however, require a commitment to life affirming, healthy habits. Dr. Nieca Goldberg, chief of the women's heart program at Lenox Hill Hospital in New York City emphasized that stopping smoking, making dietary changes, and exercising are the best ways to prevent cardiovascular disease. "Obviously that's a lot harder than taking a pill,'' she says, and so true. Teaching our clients in their 20s, 30s, 40s, and 50s to make healthy choices and not wait until the perimenopause or after, to start, is an important part of our work as health practitioners and educators. In fact, recent evidence demonstrates that heart disease may begin as early as adolescence, with the earliest deposition of arterial plaques now occurring at younger ages than ever. Healthy habits can't start too early!

Major Types of Cardiovascular Disease

Hypertension: Blood pressure > 140/90 in the general population and 130/80 in diabetics and individuals with hyperlipidemia and other cardiovascular risk factors

Dyslipidemia/Hyperlipidemia: Elevated blood lipids including LDL, VLDL, total cholesterol and triglycerides; low HDL

Coronary Artery Disease: The narrowing or blockage of the coronary arteries, usually caused by atherosclerosis. If blood supply to a portion of the heart muscle is cut off entirely, or if the energy demands of the heart become much greater than its blood supply, ischemic injury, or myocardial infarction (heart attack) can occur.

Angina: Without an adequate blood supply, the heart becomes starved of oxygen and the vital nutrients it needs to work properly. This can cause chest pain called angina. Angina can be stable or unstable. Stable angina tends to occur with strenuous activity; unstable angina occurs even at rest. The latter has a high propensity to lead to myocardial infarction.

Congestive Heart Failure: Heart failure occurs when abnormal cardiac function causes failure of the heart to pump blood at a rate sufficient for metabolic requirements under normal filling pressure. Clinical symptoms commonly include shortness of breath, exercise intolerance, and edema. Coronary artery disease is the most common cause of heart failure, though hypertension is also commonly related. Risk factors are the same for cardiac disease in general, with cigarette smoking, hyperlipidemia, and diabetes mellitus often associated with its development. Other causes are hypertrophic cardiomyopathy, postpartum cardiomyopathy, restrictive or infiltrative cardiomyopathies, and valvular heart disease. The prognosis for untreated, and sometimes even treated, heart failure, is often poor.

Risk Factors for Heart Disease

- *Modifiable risk factors* include cigarette smoking, alcohol use, and lifestyle (diet, physical activity, and psychosocial factors).
- *Non-modifiable risk factors* include age, gender, family history of congenital disorders, acquired disorders (for example, postpartum cardiomyopathy or valvular disease secondary to infection).

Conventional Treatment

All individuals with heart disease, suspected heart disease, or who are at high risk, should receive conventional medical attention. Their primary care provider should be informed of the use of botanicals and supplements in order to most effectively and safely care for their patients. Certain medications, for example, 40 mg/day of simvastatin has been shown to reduce the risk of heart attack and stroke by one-third! Note that HRT is no longer recommended as a cardioprotective medication for menopausal women, and in fact increases the risk of stroke!

Botanicals and conventional medications for heart disease are generally not combined due to lack of research on the potential interactions; thus do not combine herbs and cardiovascular drugs except under the direct supervision of a health care provider qualified in both. Also see *Botanical Medicine for Women's Health* and required reading.

Botanical Treatment Strategies

The botanical treatment of heart disease should not be taken lightly and is best managed by experienced herbalists, naturopathic physicians, and integrative medical doctors. The use of herbs to prevent heart disease can be an important part of the overall self-care we do as we age, and as we get closer to the age when heart disease risks increase. In this way one might think of heart-healthy herbs as nutritive foods for the cardiovascular system. (Note that the vascular system is an integral part of heart health; varicosities and vascular tonic herbs are discussed in a previous lesson).

For historical information purposes and to be comprehensive, the following table is an overview of the herbs commonly used in the treatment of common cardiac conditions. These are also discussed in *Botanical Medicine for Women's Health*.

Cardiovascular Tonic Herbs

Consider these four herbs for daily use:

Allium sativum	*Glycine max*
Cratagus oxyacantha	*Leonorus cardiaca*

Classic Herbs in the Treatment of Common Cardiac Conditions

Hypertension	*Allium sativum*
	Cimicifuga racemosa
	Coleus forskohlii
	Viburnum opulus; Viburnum prunifolium
	Viscum alba (mistletoe; effects unclear with potential toxicity)
Dyslipidemia/Hyperlipidemia	*Allium sativum*
	Commiphora mukul
	Cynara scolymus
	Glycine max
	Red yeast rice
	Trigonella foenum-graecum
Coronary Artery Disease	*Allium sativum*
	Angelica sinensis
	Commiphora mukul
	Cynara scolymus
	Glycine max
	Red yeast rice
	Salvia miltiorrhiza (dan shen)
	Trigonella foenum-graecum

Angina (stable)	*Cratagus oxyacantha* *Convallaria majalis*
Heart Failure	*Cratagus oxyacantha* *Convallaria majalis* *Scillae bulbus* (squill; potentially toxic digitaloid contents) Also diuretics, particularly *Taraxacum officinalis* which is potassium sparing

From The Natural Menopause Handbook by Amanda McQuade Crawford

Concentrate for Cardiovascular Support

4 oz hawthorn leaf, flower, and berry tincture

1 oz motherwort herb tincture

1 ½ tsp blackstrap molasses

2 fl oz plus 1 ½ tbsp black cherry juice concentrate

Combine all ingredients. Take 1 tsp once or twice daily diluted in 1 cup of water, juice, or herb tea in the morning or evening. *Note from Aviva: makes a great spritzer in sparkling water!*

Tea for Cardiovascular Support

2 oz dried linden flowers

2 oz dried hawthorn flower and leaf

2 oz hawthorn berry

½ oz hibiscus flower

1 ½ oz lemon balm leaf

Steep ½ ounce of this mixture in 3 cups of boiling water in a covered tea pot for 15 minutes. Strain and sip 1 cup, hot or cold, 1- 3 times/day.

Additional Treatment: Three Key Concepts

Diet/Nutrition

Do: eat small, regular meals to avoid hypoglycemia, limit fats to only healthy oils and only 10-20% of the diet; ample amounts of fresh, cold water fish, leafy greens, whole grains, legumes, nuts and seeds, fresh fruit and a wide variety of fresh vegetables – especially those rich in flavonoids; healthy fats (olive oil, canola oil, avocado, wheat germ, nuts and seeds), garlic and onions daily, low-fat organic yogurt and a minimal number (2-3 servings) of organic, free range eggs and organic meats weekly, high fiber diet, water, green tea, herb tea, red wine (4-5 glasses/week maximum). A Mediterranean-style diet is a heart-healthy way to eat that incorporates the above suggestions. The DASH diet is a low-sodium diet that can be modified to most any eating style and which has been shown to reduce blood pressure effectively (see box below). A low-sodium Mediterranean diet would be ideal for overall health and specifically heart health promotion.

Minimize: caffeine, sugar, sodas, animal fats, partially hydrogenated and hydrogenated fats, high salt foods, artificial ingredients, alcohol

Maintain: a healthy BMI, avoiding obesity as well as being underweight to minimize heart and bone disease and maximize health.

The DASH Diet: Dietary Approaches to Stop Hypertension

The DASH diet is one of the most effective strategies for reducing hypertension in a healthy way, and has been shown to lower blood pressure significantly in as quick as two weeks. It is a low-fat/non-fat dairy diet rich in fruits and vegetables and it is relatively simple to follow. Guidelines for the DASH diet can be found at http://www.dashdiet.org/

Exercise

Aerobic exercise for 1 hour 3-5 times/week is optimal for the prevention of heart disease; even a brisk walk for 30 minutes daily or 5 times weekly is beneficial.

Stress Reduction

This is perhaps the toughest as we can choose our diets and lifestyles to a greater extent than we can control our circumstances. Life happens – and sometimes it is easier than others. Few of us are immune to relationship challenges and disappointments, work-related tensions, even, sadly, sometimes, tragedies. Yet stress and depression influence heart disease development. All we can really do is choose how we respond to stress and work toward creating and nurturing life circumstances that support us. Meditation, prayer, journaling, dancing, working out, talking with friends, therapy, a walk on the beach – do whatever it takes to keep your spirit uplifted and work through the depths with a sense of strength so that life's stresses aren't internalized and transformed into stress hormones that affect the heart, blood sugar, and bones.

99 and still going…

I was on call at the hospital on New Year's Eve. You'd think a drinking, partying holiday would be a big admission night, but actually, people tend to stay home on holidays and flood the emergency department the following day with all kinds of complaints resulting from overindulgence the previous day. Chest pain from cocaine use, congestive heart failure from deviating from a heart healthy diet and skipping medications, or alcohol detox – either they've just been drinking too much, they've had a car accident or were found passed out in a puddle somewhere, or they made a New Year's Resolution to quit drinking. My patient was indeed there for congestive heart failure – not for reasons of indiscretion, she just had a small exacerbation secondary to an upper respiratory infection. She was 99 years old turning 100 in a few months. And most remarkable, all of her faculties were 99% intact – she even had all of her own teeth! She lived alone and did her own cooking, with the help of her niece who did her grocery shopping and hired help for house cleaning. I was doing an age appropriate history intake. Any uterine prolapse ma'am? "No." Any urinary incontinence? "No." Any surgeries? Well, I had my appendix out in 1920 and in 1939 I had a salpingo-oophorectomy. Is that what you call it dear?" Okay, I'm thinking, this woman has seriously got some good genes. Even I struggle over saying that word and she rolled it off her tongue like a gynecologic surgeon! As I started to ask her if she'd ever smoked and she told me only a few cigarettes socially when she was younger, I realized the preposterous nature of asking whether she smoked or drank from a health perspective and I caught myself and totally shifted gears from inquiring about her history from a medical detective perspective to the kinds of questions a devotee might ask a master – "So tell me what you've done to keep so young at 99! Smoke? Drink? Dance? Were you married? Have kids? "No, no kids; I was married for a long time. Now I mostly spend time with my sister when I can. She's 101 and lives in a nursing home nearby." (Okay, I'm thinking, these chicks won the genetic lottery – and I muse to myself how sometimes having kids does seem to shave years off of my life! But only at moments and only teenage daughters!). "I do drink now and then. I used to make a bottle of cognac last a year – I enjoyed a sip of that now and then. I've just discovered a wonderful wine (Black Stone, she tells me the name). They make a Cabernet and a Pinot. I love it with cheese and crackers…but I have to watch the cheese or I get a little constipated." I laugh and tell her I understand and stand there for a minute before my exam wondering at what this woman has seen in her life. I do my exam and get her set to be admitted and promise I will visit her later. I do. When I walk in the room she remembers my full name, is clearly as delighted to see me as I am her, and I settle down on the edge of her bed for a longer chat with this 20-year old in the body of a woman who is nearly a centenarian!

Questions to Ask

In working with women to prevent cardiovascular disease, there is a difference in approach to women who are inherently low-risk and women who have non-modifiable risks. In the latter group, modifications in lifestyle, use of herbs and nutrients, and doing all the "right things" may significantly reduce – but not completely eliminate – the risks of a stroke, MI, or other event. Therefore, these women should be followed by a primary care doctor in addition to receiving natural preventative care. The use of conventional therapies, for example, antihypertensive or anti-hyperlipidemic medications may also be more appropriate in these women compared to their counterparts without inherent disease risks. The same is true for those with modifiable risk factors but in whom disease parameters such as blood pressure, blood sugar, or cholesterol levels are not well controlled. All women should be taught to take signs of cardiac disease and stroke seriously and seek medical care should they occur.

Risks/Cautions

Warning signs of stroke

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden, severe headache with no known cause

Warning signs of heart attack

- Chest discomfort: uncomfortable pressure, squeezing, fullness or pain.
- Discomfort in one or both arms, the back, neck, jaw or stomach.
- Shortness of breath with or without chest discomfort.
- Other signs may include breaking out in a cold sweat, nausea or lightheadedness

In women, the most common symptom of a heart attack is chest pain or discomfort. But women are more likely to experience "atypical" symptoms including a sense of fatigue or malaise that might come on slowly or suddenly and may persist for days; women are also more likely to experience some of the other common symptoms, particularly shortness of breath, nausea/vomiting, and back or jaw pain, than men.

Case

Identification/Chief complaint: chronic high blood pressure, high cholesterol, and anxiety

History of present illness: Amy is a 61-year old woman who went through menopause with little discomfort at age 50. For the past year her primary doctor has been encouraging her to start taking a statin and a beta blocker for her cholesterol and her blood pressure. Her cholesterol levels are at the high end of normal; her systolic blood pressure consistently in the mid-to-high 140s. She has no history of diabetes and no major family history of cardiac disease.

Amy is a retired labor and delivery nurse and takes generally good care of herself, trying to eat a healthy diet and exercising regularly. She is 5'6" and weighs 138 pounds. She says that she feels great and has a "natural approach" (had a homebirth in the late 1970s, breastfed, started the first organic food coop in her New England town) so doesn't really want to take any medications. Her doctor supports alternative therapies and recommended she see you for "some herbs and supplements" to see if medications can be avoided. The main

thing, her doctor told her, is to "get her blood pressure down a little bit and drop her cholesterol levels." All of this concern on the part of her doctor has made her feel anxious, and since her last medical appointment three weeks ago she's not been sleeping well, having trouble falling asleep.

Past medical history: tonsillectomy age 7; cholecystectomy in 1985; takes no medications and has no allergies

Family history: father: colon cancer age 58; mother healthy and alive age 89

Social history: lives with her husband of 30 years; has 3 children all healthy; retired labor and delivery nurse who co-owned a birthing center until 3 years ago; now travels extensively with her husband and a long-time group of girlfriends

Psychiatric history: none

Gynecologic history: menarche age 14; 3 vaginal births at home; menopause age 50 with no problems

Review of systems: occasional nausea in the mornings and occasional fatigue in the late afternoon; rarely gets a tension headache – maybe 3-4 times a year; all systems otherwise negative

Physical Exam

General: a silver haired, well-dressed woman in no distress

Skin: looks young for her age; small age spots on the back of her hands bilaterally; otherwise normal

Neck: no thyromegaly, no carotid bruit, no jugular venous distention

Cardio: regular heart rate and normal rhythm; no murmur appreciated

Abd: soft, non-tender, no abdominal masses, normal active bowel sounds

Extremities: warm and well-perfused, no edema

Labs / Data: Mildly elevated LDL and total triglycerides; low blood sugar; low HDL; blood pressure in your office is 136/74

HERBAL MEDICINE FOR WOMEN

Unit 4 Lesson 50

Osteoporosis & Moving Forward on Your Herbal Journey

Learning Objectives

By the end of this lesson you will be able to:

1. Discuss the prevalence of osteoporosis in women, the social implications, and the role of menopause in the development of osteoporosis.

2. List and describe the characteristics of the most common botanical treatments for osteoporosis prevention as presented in this lesson and the associated required reading.

Unit 4 Lesson 50 Osteoporosis & Moving Forward

Congratulations! At the end of this lesson you will have completed the course work for Herbal Medicine for Women! I hope this has been a nourishing, empowering, and informative journey, and that along the way, you have begun to incorporate herbal medicines more into your personal life. I also hope that this is just the beginning of the next step in your herbal studies.

The main focus of this lesson is the prevention of osteoporosis, a condition that affects millions of women annually and the consequences of which can be devastating in the advent of falls and fractures.

This lesson also includes a short discussion of building an herbal business, suggestions for enhancing your herbal professional life, and finding creative ways to build a career with herbal medicines. It highlights several important skill sets you will be able to draw upon as an herbal educator and business owner.

Following this is your final assignment set. By the time you complete this lesson you should have already submitted your proposal for a final project and hopefully had this approved. If you have not, please do it along with your lesson submission. I will contact you within 2-3 weeks with an approval, comments, suggestions, or need for revision of your idea.

When your completed final project is approved, you will be sent an examination in a sealed manila envelope. You will need to take this exam in a proctored setting, such as under the supervision of a local librarian or teacher. The envelope should not be opened prior to your exam session, at which time the proctor will open the envelope and sign a paper that will be returned to the Herbal Medicine for Women office with your exam stating that the envelope had not been previously opened. Full instructions will be sent along with the exam. Exam questions will be derived directly from the course questions and essay questions/formulations; expectations will be comparable to the course as well.

Required Reading

Botanical Medicine for Women's Health (Romm)

- Osteoporosis, Bone Health, and Menopause (posted to course website)

Principles and Practice of Herbal Medicine (Mills & Bone)

- Review relevant herb monographs from Key Botanicals list below

Key Terms

Be sure to familiarize yourself with the definitions for all key terms. These can be found in the course resources or using free on-line resources.

Bisphosphonates	Exercise	Osteoblast	SERM
Bone mineral density	HRT	Osteoclast	Tai chi
Calcium	Ipriflavone	Osteopenia	Vitamin D
DEXA scan	Isoflavones	Osteoporosis	Weight bearing

Key Botanicals for this Lesson

Students should be familiar with the botanical name, common name, actions, common uses, forms of use, general dosage ranges, side effects, and contraindications of the herbs in the following list. Ideally, you will also be familiar with taste. This information can generally be found in the course and accompanying required reading materials.

Avena sativa

Camilla sinensis

Cimicifuga racemosa

Equisetum arvense

Glycine max

Introduction

Osteoporosis carries serious consequences for women at any age, and becomes a particular risk for women past menopause when bone fragility is at its greatest and falls become more likely. Fractures resulting from osteoporosis account for substantial morbidity and mortality. As many as 25% of women who sustain a hip fracture will die within one year of the incident; 50% of women who sustain a hip fracture do not return to their full functional status, becoming dependent on others for their daily needs; 25-30% require long term care. There are substantial costs on all levels: physical, emotional, and psychological costs to individuals, and a considerable financial and social price for both family and society.

Bone health begins in our teens when we are laying the foundation for an optimal skeletal matrix. Skimpy diets especially that are calcium poor, cigarettes, lack of adequate sunlight exposure for vitamin D, and problems such as anorexia, all common in the teenage years, wreak havoc on bone development. Healthy habits, especially when it comes to diet and exercise, can't start too early in life!

What is Osteoporosis? Osteopenia?

Osteoporosis is significant bone loss; osteopenia is early bone loss. Read on…

The WHO defines osteoporosis in postmenopausal women as a bone mineral density–T score (BMD-T score) of less than or equal to 2.5 Standard Deviations (SD) below the mean at the total hip, femoral neck, or lumbar spine (posterior-anterior measurement, not lateral). This score is derived by comparing the current BMD of the patient to the mean peak BMD of a normal young adult population of the same gender. For women the reference standard is white women aged 20-29 years old, as this is the age at which physiologic bone density is at or near its peak. If factors such as body-habitus (i.e., obesity) or medical conditions (i.e., arthritis) make such measurements difficult or invalid, then the density of the distal one-third of the radius bone may be considered a valid diagnostic site. Osteopenia is defined as BMD 1.0 – 2.5 SD below the mean and is indicative of early bone loss and high risk for development to osteoporosis. Osteoporosis is also clinically diagnosed regardless of T-score based on the presence of a fragility fracture.

Unit 4 Lesson 50 Osteoporosis & Moving Forward

Osteoporosis Facts (International & National Osteoporosis Societies)

- 1 in 3 women over 50 will experience osteoporotic fractures.
- 30-50% of women will suffer a fracture related to osteoporosis in their lifetime.
- 80%, 75%, 70% and 58% of forearm, humerus, hip and spine fractures, respectively, occur in women. Overall, 61% of osteoporotic fractures occur in women, with a female-to-male ratio of 1.6.
- By 2050, the worldwide incidence of hip fracture in women is projected to increase 240%.
- In white women, the lifetime risk of hip fracture is 1 in 6, compared with a 1 in 9 risk of a diagnosis of breast cancer.
- Osteoporosis takes a huge personal and economic toll. In women over 45 years of age, osteoporosis accounts for more days spent in hospital than many other diseases, including diabetes, myocardial infarction, and breast cancer. In Europe, disability due to osteoporosis is greater than that caused by cancers (with the exception of lung cancer) and is comparable or greater than that lost to a variety of chronic noncommunicable diseases, such as rheumatoid arthritis, asthma and high blood pressure related heart disease. Hip fractures cause the most morbidity with reported mortality rates up to 20-24% in the first year after a hip fracture, and greater risk of dying may persist for at least 5 years afterwards. Loss of function and independence among survivors is profound, with 40% unable to walk independently and 60% requiring assistance a year later. Because of these losses, 33% are totally dependent or in a nursing home in the year following a hip fracture.
- Although low BMD confers increased risk for fracture, most fractures occur in postmenopausal women at moderate risk.
- Evidence suggests that many women who sustain a fragility fracture are not appropriately diagnosed and treated for probable osteoporosis.
- The great majority of individuals at high risk (possibly 80%), who have already had at least one osteoporotic fracture, are neither identified nor treated.
- A 50-year old woman has a 2.8% risk of death related to hip fracture during her remaining lifetime, equivalent to her risk of death from breast cancer and 4 times higher than that from endometrial cancer.

Risk Factors for Developing Osteoporosis

- Family history of osteoporosis or hip fracture in a parent
- Advanced age (risk begins to increase >50 years old and is greatest at ~ 80 years old)
- Low BMD (demonstrated by DEXA scan)
- Prior fracture
- Thinness [body weight <127 lb (57.7 kg) or body mass index (BMI) < 21]
- Smoking in any amount
- Low calcium or Vitamin D intake
- Greater than 2 alcoholic beverages daily
- Oral or intramuscular glucorticoid use for > 3 months
- Low levels of physical activity
- Increased fall risk
- Warfarin use >1 year
- Genetic disorders: osteogenesis imperfecta; thalassemia; hemochromatosis
- Calcium balance disorders: hypercalciuria; vitamin D deficiency
- Endocrinopathies: cortisol excess; Cushing's syndrome; gonadal insufficiency; hyperthyroidism; Type 1 diabetes mellitus; primary hyperparathyroidism
- Gastrointestinal disorders that prevent calcium absorption
- Chronic kidney disease
- Medications: steroids > 3 months, ; excessive thyroxin intake; long-term phenytoin use; heparin; cytotoxic agents; GnRH agonists; immunosuppressives

Factors that increase fall risk increase the risk of a fracture, which is the greatest problem associated with osteoporosis. Preventing fractures through removing mechanical and medication induced falls, improving balance through strength training and tai chi, and providing Vitamin D at a dose of 800 units daily may help prevent falls and fractures on elderly women.

Conventional Treatment

See *Botanical Medicine for Women's Health*.

Botanical Treatment Strategies

While the use of herbs to prevent and treat bone mineral loss is very popular, in my opinion it is not enough to rely on herbs without making important dietary and lifestyle modifications to protect bone health. A nutrient-rich, phytoestrogen-rich, calcium and vitamin D-rich diet is critical to bone health, as are adequate weight bearing exercise, adequate sunlight exposure, and avoidance of habits that inhibit bone mineralization and increase bone loss, for example, cigarette smoking and soda consumption. Finally, prevention of falls is one of the most important things we can do to mitigate the risks of osteoporosis. Herbs should be considered part of a host of adjunct therapies to strengthen bone health rather than relied on as the primary prevention and treatment strategy. And using herbs as foods is the most effective approach, be that using soy as tofu, tempeh, miso, and soymilk, and herbs such as nettles as a green vegetable along with other calcium rich greens.

There is a rich folk herbal tradition of using nutritive herbs for the prevention and treatment of osteoporosis via supplementation of minerals such as calcium, potassium, and silica. These preparations are typically taken as either foods or strong infusions (steeping herbs for 8-10 hours), and may also be steeped in vinegar for an extended period of time and used by the tablespoon in salad dressings and over other foods. Nettles, horsetail, milky oats, and dandelion are the most popular "bone health" herbs. Though there have been no studies to demonstrate efficacy in osteoporosis prevention and treatment, they are considered relatively benign herbs and gentle tonics.

Nettles: the greens are reported to be high in Vitamin A (as carotenoids), B complex, C, D, K, and in the minerals calcium, magnesium, manganese, boron, chromium, phosphorus, iron, potassium, and silica, as well as chlorophyll. Remember, handle with care and use only cooked or steeped as the plant carries a nasty sting when handled fresh!

Milky oats: rich in vitamins B, C, D, E, K, and carotenes as well as many minerals, including calcium, magnesium, chromium, and silica, the milky oat pods are harvested before their full maturity and are used as tincture or infusion, though eating oatmeal as a breakfast cereal is probably the most effective way to derive nutrients from this herbal-food.

Horsetail: has a high silica content, along with calcium, magnesium, bioflavonoid, carotenoids, chromium, potassium, iron and copper; is only bioavailable at a certain stage of the plant's maturity. It is taken as a fresh infusion, a decoction, or a vinegar extract for optimal mineral extraction. Capsules can be used, and are best with freeze-dried plant material. The vinegar extract is made by chopping the fresh plant, filling a jar with the chopped plant material, pouring organic apple cider vinegar to cover the plant and fill the jar and steeping for

two to three weeks, shaking once daily. The herbal vinegar is strained from the plant material and stored in a cool dark place or refrigerated.

Dandelion: the leaves are vitamin and mineral rich, as are many leafy greens. Dandelion greens are especially rich in calcium, magnesium, manganese, boron, and iron, as well as potassium. They are best eaten raw in salads or steamed as a potherb. They can also be prepared as a vinegar extraction, along with horsetail, nettles, and many other leafy greens.

Black cohosh: There is some evidence that black cohosh may, in fact, be useful in the prevention of osteoporosis. This mechanism was associated with what was presumed to be SERM activity; however, it now seems that black cohosh is not acting as a SERM but through other pathways, possibly via neurotransmitter activity. Also, the action on bone is not adequate to make it a sole or even primary prevention or treatment modality. It is a wonderful adjunct in neurovegetative complaints of menopause and can be used in conjunction with other known methods of osteoporosis prevention and treatment such as diet and exercise; its actions in combination with pharmaceutical medications is not known and therefore conjunctive use is not recommended.

Tea for Bone Health

Herbs teas are one popular way to increase nutrients in the diet. Herbal vinegars are also popular. The following tea is from *The Natural Menopause Handbook* by Amanda McQuade Crawford.

dried oatstraw	3 oz
horsetail	2 oz
dandelion root, raw	2 oz
dandelion root, roasted	2 oz
dandelion leaf	2 oz
yellow dock root	1 oz
alfalfa herb	1 oz

Steep ½ oz in 4 cups of boiling water for 20 minutes. Strain and drink 1 cup, hot or cold, 3 times/day. *Note from Aviva: For authentic hippie, rootsy herbwoman-style, drink your brew out of a 1 quart mason jar, sipping through the day.*

Herbal Vinegars

Herbal vinegars have been used since time immemorial as an effective means to both extract herbs into a palatable medium and as a way to preserve the extract. They are absolutely delicious, fun and beautiful to make, and can be included in a wide variety of salad dressings or plain over greens. They are also wonderful to make en masse and give away for gifts. Here's one of my favorites:

2 cups good quality red wine or balsamic vinegar (you can use apple cider vinegar instead but it is less tasty)
2 large sprigs fresh rosemary (6" long each, cut to stay under the level of vinegar in the bottle)
4 chopped fresh dandelion leaves
2 cloves fresh garlic, sliced lengthwise
1 tablespoon fresh or dried nettle leaf
½ teaspoon of black peppercorns

Place all ingredients in a clean dry bottle. The key is to make sure the bottle is initially dry and that when it is filled, all herbs are below the surface of the vinegar, otherwise mold may grow. Let sit at least 3 days before using. Store in the fridge for greater longevity. Mix with olive oil and salt to make a salad dressing, or blend with olive oil, salt, and tofu for added phytoestrogen benefit and a creamy tofu dressing.

Additional Treatment

Diet and exercise are key to prevention and even treatment of osteoporosis and fracture prevention. See *Botanical Medicine for Women's Health* for a discussion of pharmaceutical and nutritional therapies used in the prevention and treatment of osteoporosis. Diet and exercise are highlighted below.

From the International Osteoporosis Society

Exercise

- Childhood and adolescence are particularly valuable times to improve bone mass through exercise. Higher levels of leisure time, sport activity, and household chores and fewer hours of sitting daily were associated with a significantly reduced relative risk for hip fracture.
- Physical activity and fitness reduce risk of osteoporosis and fracture and fall-related injuries.
- Strengthening back muscles can reduce the risk of vertebral fractures and kyphosis.
- Studies have shown that bone mineral density in postmenopausal women can be maintained or increased with therapeutic exercise.

- In the frail elderly, activity to improve balance and confidence may be valuable in fall prevention. Studies have shown that individuals who practice tai chi have a 47% decrease in falls and 25% the hip fracture rate of those who do not and that tai chi can be beneficial for retarding bone loss in weight-bearing bones in early postmenopausal women.
- Intensive exercise training can lead to improvements in strength and function in elderly patients who have had hip replacement surgery due to hip fracture.

Nutrition

- Adequate levels of calcium intake can maximize the positive effect of physical activity on bone health during the growth period of children.
- Calcium supplementation has been shown to have a positive effect on bone mineral density in postmenopausal women.
- Calcium and vitamin D supplementation reduces rates of bone loss and also fracture rates in older female adults, and the elderly. In institutionalized elderly women, this combined supplementation reduced hip fracture rates.
- Fruit and vegetable intake was positively associated with bone density. The exact components of fruits and vegetables which may confer a benefit to bone are still to be clarified.
- Higher dietary protein intake was associated with a lower rate of age-related bone loss.
- Good nutrition is an important part of a successful rehabilitation program in patients who have had an osteoporotic fracture. In frail, elderly, hip fracture patients this is crucially important, as poor nutritional status can slow recovery, and increase susceptibility to further fractures.
- Lactose intolerance has been shown to be associated with low bone mass and increased risk of fracture due to low milk (calcium) intake.
- Moderate alcohol intake is not thought to be harmful to bone. However, chronic alcohol abuse is detrimental to bone health, with one of the mechanisms being a direct toxic effect on bone forming cells.
- Studies in children and adolescents have shown that supplementation with calcium, dairy products, calcium-enriched foods or milk enhances the rate of bone mineral acquisition.
- The onset of anorexia nervosa frequently occurs during puberty, the time of life when maximal bone mass accrual occurs, thereby putting adolescent girls and boys with anorexia nervosa at high risk for reduced peak bone mass.

Questions to Ask

In working with women to prevent bone diseases, it is important to ascertain whether there is a strong family history of osteoporosis, falls, and fractures. Look at the family history of both female and male relatives—men can also have osteoporosis and this can be an inherited risk for your client. High-risk women should be followed by a primary care doctor or endocrinologist in addition to receiving natural preventative care. The use of conventional therapies may be appropriate in these women compared to low-risk women.

Risks/Cautions

Herbal therapies are commonly touted for their ability to prevent bone disease, their appreciable mineral content, and their ability to reduce bone disease. It is important that women with osteopenia and osteoporosis be followed by a practitioner that can track bone density and provide the most effective therapies for preventing or forestalling bone loss.

Moving Forward on Your Herbal Journey

Running a Successful Herb Business (Small Skills for a Life Worth Living)

I have been very fortunate to have been self-employed since I was 16 years old, crafting a living solely from herbal medicine, midwifery, and at small junctures, art (I used to sell handcrafted beaded jewelry and handmade dolls). I have been blessed to always have work that I love and to love the work that I have. And most importantly, I have always felt that I was involved in "right livelihood" – work that didn't compromise my ethical or social values, that was inherently green, and that was part of improving society while stewarding the earth for subsequent generations.

This course gives you the foundation to create just the same…to take any number of professional directions as an herbalist – and be quite competent providing herbal information on a wide variety of general herbal medicine and women's health topics. You can start your own business or be a valuable asset to an existing herb business, whether an herbal products company, an herb school, or as an apprentice or educator in a health practice. You can be an herb teacher, writer, product manufacturer, or herbal educator providing classes and private consultations. The sky is the limit and your creativity can run as deep as your roots allow. Start small and within your scope and this will grow and grow and grow….

Herb businesses come in many shapes and sizes – small herbal product companies alone have enormous variety in both product type and target market ranging from earthy homemade topical products such as oils, soaps, and salves to percolated high-end tinctures; from mom and baby products to professional practitioner products. There are herbal consulting businesses, herbalists who focus on writing for magazines, herb teachers, herbal tour guides around the world – if you can imagine it you can pretty much create it! One of the common characteristics amongst herbalists is that we tend to be a very multilateralized group – many herbalists do a little bit of all of it: teaching, product making, writing, seeing clients. Others have found a single niche and focus on that – for example, a product line for childbearing women, herbal education though a course, or writing herb

books and articles. Most herbalists diversify in order to keep a hand in a bit of all of it and to make a living as it can sometimes be tough to generate a full income just as an herbal practitioner – though there are those who do it quite successfully. So even those focusing on herbal product manufacturing might write or teach about their products; those running courses tend to teach about clinical practice, wildcrafting, and medicine making, etc.

Successful business owners are often individuals who are willing to take a risk on their skills and talents to create both an income and a feeling of a life worth living by doing something they love. They are often folks willing to take a small risk and interested in living outside of "the rat race," if you will, and tend to see life as an adventure and an evolving process. Of course if you have a family, a day job, day-to-day responsibilities, etc., it might be entirely impractical to uproot your life and start an herb business on a wing and a prayer. The good news is that you can start small and more as a hobby at first and see how it goes. Of course the physics of most endeavors is that you generally get out something close to what you put in, but even if you don't have full time to invest in launching your herbal path, your passion can carry you a long way. At some point you might be forced to make a choice—the day job or the growing herb business – this is often the case when a small business starts to take off and reaches that point where the owner has to choose between size and capacity to handle the business.

Running a small business requires the development of many valuable skills: self-discipline, organization, bookkeeping, teamwork, financial planning, management skills, marketing, and more. Being in business for oneself is a continuous learning experience, and if you are open to it, you'll learn a great deal about yourself – how you handle stress, uncertainty, working with others, and risk taking.

This is an exciting time for those who are eco-minded to step out into the business work, as the rest of the US seems to be catching onto the concepts of organic, natural health, and sustainability. To be a successful businesswoman, you must internalize the persona of a creative explorer traveling into uncharted territory, with a mission and with openness and flexibility. In fact, developing a personal mission statement that encompasses your values, your goals, and your vision can be a powerful first step on the journey. It is a bit like creating a life plan – visualize, pray, intuit, seek inner guidance, find ways to work in harmony with your own passion and happiness. If you believe in your work, your vision, your product, you will put your whole self into it, and this will shine through to others. Integrity in your work is key to its believability…what kind of integrity do you want in the owners of businesses you use, products you purchase, practitioners you frequent? What is it about the mission of a business that makes you not only want to use the product, but to actually endorse the business? Write down these values as part of your mission and bring these to life in your every day work. I have found it valuable to create what I refer to as an "altar" in my home – either in my office or on my bedroom bureau – a place where I arrange items that remind me of my vision, ideas, goals, and a place where I display what I have written for my vision as a daily reminder of the direction I hope to be traveling and the vision I hope to be manifesting.

When building a business it is important to embrace a combination of the practical and the visionary. Practical matters such as how you will market, what you will offer, what your services will cost, and what start up finances are essential; however, it is important not to become discouraged….the details will fall into place when the passion is there.

I have invited a couple of herb friends who have taken a variety of paths in herbal medicine, and who are at various stages in their careers, to contribute their "Herbal Pearls" on creating success as an herbalist. Here are a few of the very rich responses:

Sara Katz

Sara Katz is the co-founder and co-owner of Herb Pharm and has been actively involved in all aspects of the business since its humble beginnings in her kitchen in 1979. In the early years she grew, wildcrafted, dried and garbled the herbs, helped make the extracts and shipped them to customers, and was a one-person office. Today she oversees management of the company, including its farm and Herbaculture Intern Program. Sara is also actively involved in several local environmental groups, is a founding member of The American Herbalist Guild, serves on the board of the American Herbal Products Association, and is president of United Plant Savers.

Pearls on creating an herbal product line:

- Love what you are doing because it's a lot of work!
- Never skimp on quality of ingredients or process in deference to expediency or profit; these are medicines, after all!
- If an herb company stays small and local it may be able to stay under the regulatory radar. Complying with the current regulations around herbal products is challenging and restrictive – but not impossible. If you want to grow into a bigger company you need to educate yourself about Good Manufacturing Practices (GMPs) and other regulations. A good way to do that is to become a member of the American Herbal Products Association.
- Put as much attention into the quality of your business practices as you do into the quality of your products.
- Value and respect the people you work with.
- Become knowledgeable about the at-risk status of any wild herbs you use. Conscientious wild-harvesting means knowing if it is sustainable to harvest particular herbs in a certain area, when to harvest, and how to harvest in order to encourage proliferation of that plant's progeny. Be especially vigilant about harvesting native species.
- Knowledge of herbs and running an herbal products business require constant learning, and the best education is direct, hands-on experience. Keep absorbing all you can!
- Having been in business for over thirty years now, we have seen huge changes since the early days when we made herbal extracts in our kitchen and typed their labels on a typewriter. Along the way what has helped us to overcome the various hurdles was unwavering commitment, countless hours of work, and finding the right people with the skills and knowledge to help us.

Lynda Lemole

Linda is the former Executive Director of United Plant Savers (UpS). Formerly Lynda Sadler, she was the co-owner and product formulator for Traditional Medicinals from 1981-2002. Lynda's education background includes an MS in Nutrition: "I've had many herb teachers and will likely be an herb student for the rest of my life." Lynda is currently enrolled in a Botany for Herbalists class in her hometown of Sebastopol, CA.

On herb product development

- Don't try to be big. You may end up that way, but start small and learn every step yourself. Make your product yourself at first – beginning to end – don't have someone else make it for you. Then use it yourself, and give it to others to use, follow-up with them and take every comment seriously. Do this for as long a time as you can before you launch it. Some products are good at first but then they change, and you won't know this if you don't give it time. Don't launch products before their time.

- As soon as you have even one employee, create an herb education program for them, however small. You want everyone working on your product line to know something about herbs. At whatever level you can offer them herb information, do it. Or support a local herb teacher or herb school by sending employees to classes. Not everyone will become an herbalist, but there is lasting value in offering herb education to your co-workers. They will either become extraordinary associates, or when they leave, you will have given them something that is more valuable than monetary compensation, and this value will come back to you and your products.

- Have live herb plants growing in your work areas, preferably herbs you are using in your products, even if they are only in pots. A garden would be wonderful! People and plants bond, they send each other messages. It is important to keep in touch with how the plants feel about what you are doing, and how the people are feeling about the herbs.

- Once you are out there, stick with yourself. Don't constantly change your packaging, your name, your products. It takes a long time for consumers to get to know you, and if you are changing all the time, they never will. If you start small and get feedback before launching, once you decide on it, stick with it.

- Invest in good customer service. Hire polite people for this job. Don't piss off customers or suppliers – EVER – no matter what gets thrown at you. The phrase 'the customer is always right' has been around a long time for good reason. And that's not because it is necessarily TRUE, but because this is the only position you can take when you have a consumer product – the high road. You always have to be the adult.

- Don't make unnecessary herbal products. Make products that help people, that fill a real need, and that will be around for a long time. Think about making something you will be able to teach your grandchildren to make.

Rebecca Snow

Rebecca Snow, MS, CNS, RH (AHG) is a clinical herbalist and licensed nutritionist. Her passion for using herbs and foods to support health was sparked in 1998, leading her to study at the Dreamtime Center for Herbal Studies and later at the Tai Sophia Institute. After acquiring her Master of Science Degree in Herbal Medicine, Rebecca practiced for 5 years in an integrative medical office in Rockville, MD where she gained a wealth of clinical experience with complex health concerns. Her journey brought her back to Tai Sophia to share the gifts of the herbs, healing foods and compassionate guidance with her clients and students. In addition to practicing in Laurel and Silver Spring, MD, Rebecca is Program Manager for Tai Sophia's new Graduate Certificate Programs in Herbal Medicine.

The most important lessons I have learned as a teacher and a practitioner of herbs and nutrition:

- Intention is key. Walk humbly and be useful to your fellow man and woman. Be careful not to carry your own agenda in the treatment room. Have faith in something greater than yourself.
- I used to be so protective of my knowledge. Our culture is not accustomed to consulting herbalists regarding herbs. This is changing. People don't need a prescription to get herbs. After a time I learned that this mentality did not serve the greater good. Since I have learned the more I give away the more I get back.
- It is so important to keep learning and growing. It keeps your passion alive in the field. It reminds you that there is so much you still don't know.
- Keep taking herbs. Doesn't matter which ones, just use them. Keep walking your talk.

A Model of Behavioral Change

While we may see the changes our clients "need" to make or will benefit from, for example, making lifestyle changes to increase exercise, quit smoking, change the diet, it is quite another thing to have our clients recognize the need for change let alone impart the skills and will to make and maintain the change. In 1982 a model called the Stages of Change Theory was developed by Prochaska and others to help smokers to quit. This model is very useful in identifying where clients are on the continuum of readiness for change and thus "meet them where they are." Fortunately, most clients who come to an herbalist, naturopath, or other natural health practitioner are already committed to making change, but making a change can still be challenging, even for the most committed. Initially four stages of change were outlined: precontemplation, contemplation, action, and maintenance; since, a fifth stage, preparation for action, has been incorporated into the theory, as well accompanying processes that help predict and motivate individual movement across stages. In addition, the stages are no longer considered to be linear; rather, they are components of a cyclical process that varies for each individual.

The stages and processes are defined as follows:

1. Precontemplation: The individual has the problem (whether or not she recognizes it) and has no intention of changing.

   Process: Consciousness raising

2. Contemplation: Individual recognizes the problem and is seriously thinking about changing.

   Process: Self-reevaluation (assessing one's feelings regarding behavior)

3. Preparation for Action: Individual recognizes the problem and intends to change the behavior within the next month. Some behavior change efforts may be reported, such as inconsistent condom usage. However, the defined behavior change criterion has not been reached (i.e., consistent condom usage).

   Process: Self-liberation (commitment or belief in ability to change)

4. Action: Individual has enacted consistent behavior change (i.e., consistent condom usage) for less than six months.

   Process: Reinforcement management (overt and covert rewards). Helping relationships (social support, self-help groups)

   Counterconditioning (alternatives for behavior)

   Stimulus control (avoid high-risk cues)

5. Maintenance: Individual maintains new behavior for six months or more.

While I do not delve into the behavioral change model further in this lesson, I encourage students to read about it. It can be particularly useful when a client is struggling with making change, or when trying to determine how far to push.

Teaching Herbal Medicine and Creating an Effective Presentation

Teaching herbal medicine can provide you a small supplemental income or a full-time job and income depending on the frequency and level at which you do it. Local classes are the best way to start, and for some herbalists local classes eventually expand into a small local training program. A quick tour of the internet will provide no shortage of examples…and even a survey of students in this class will yield more than a few examples. So how

does one teach successfully? Here are a few tips for selecting topics, marketing, and teaching:

1. Identify your audience and the topics that are relevant or of concern. Is your audience primarily women? If a news story hits, for example, the recent change in mammography recommendations, offer a class on breast health and botanicals; if there is concern about flu, teach a class on winter (or spring or summer…) health. Staying current and teaching topically is a sure-fire way to attract a crowd and meet people's needs.

2. Know where your audience gets their information – is there a local alternative news source in which you can run an article and post an ad for upcoming classes? A radio station that will let you do a story or that will interview you and promote your class? A local food coop, women's bookstore, or botanical garden that offers classes? Has an information board? How about local nurses, midwives, or docs interested in herbal medicine? Pick topics that address their interests and concerns…and ask local members of these communities what they want to learn.

3. Price your classes according to the market in your area. Give a discount for a series of classes. A class series also allows you to promote several classes at once.

4. Plan your class well. Organize your information. Know what your goals are and make sure you offer information that meets your goals. Using visual aids such as power point can be helpful and take the focus off of you as you talk, but it is absolutely not necessary and can also lead classes to become impersonal. But do have some instructional aids – handouts, show and tell herbs, etc.

Being invited to teach at the large, national conferences doesn't come easy – while it is not a closed network, it does tend to be a privilege bestowed on those who have done some substantial herb book publishing, teaching in their own communities, or have made some sort of large or noticeable contribution or have some large local or national visibility. It is not unachievable and all of us got started somewhere. For me I was first asked to teach nationally when my first book was published; prior to that I taught in my own community. While I have never requested to teach at a conference, it is not unheard of for herbalists to do so, especially when they are promoting a new book or idea they are promoting. Don't be shy and also be persistent. When you have enough experience to be asked to teach at one of the larger regional or national conferences, at first you might be covering your own expenses and might not get paid – this is often the case for new teachers. Start local and go global!

Keep in mind that while teaching conferences is fun and exciting, it can also be a lot of work for a relatively small amount of money. You might get paid a few hundred dollars (at best for most herb conferences) for a lecture and you usually get to attend the conference for free, but you are also giving up a lot of time away from home and you don't get paid for the time it takes to prepare the lecture and a conference paper – which can require a big commitment. And not all conferences waive their fees or pay at all – for example, some of the large midwifery conferences only cover your lodging for the night you are teaching, only waive your conference fee for the day you are teaching, and don't cover travel, so it can actually cost you money and time to teach at some conferences! That said, it is wonderful to get out there and teach people about the wonder and amazing healing properties of herbs.

Writing for Publication

Writing articles for popular herb magazines is a great way to generate a small side-income and isn't too hard to do if you have something to say that the general public or a target audience wants to hear and if you hone your writing skills. Some of the popular herb magazines actually pay pretty well – often $600-$800 for a modest length article (1500 or so words), Some magazines pay as much as a dollar a word and want 1500-2000 word articles. Here are some tips for getting started.

1. As with classes, pick your target audience and relevant topics.
2. Write for small local publications to get started, for example, your food co-op newsletter (YES, THIS IS HOW I GOT STARTED NEARLY 30 YEARS AGO); show your work to a trusted friend who writes well before you submit it. If you can, create an herbal column for your local publication.
3. Blog. Get feedback on your blog.
4. Read a lot of articles and books in your chosen writing area to get a sense of writing styles, techniques, and content. Create your own style. Don't ever plagiarize or take credit for someone else's ideas…but take inspiration from what you read to generate ideas of your own. Write from what you know. This is the best, most meaningful, and most believable for the reader…and you will write it with authority.
5. Study and gather articles and information; keep electronic and hard copy files of resources and references that you can refer to and use for citations when you write.
6. Make friends with a research librarian so you can include relevant citations in your articles when appropriate.
7. Don't be discouraged by rejection – it happens to the best authors. Try to get a sense of what it was that led to the piece being rejected – seek advice and feedback – and learn to improve your work.
8. Learn, read, write, practice….learn, read, write, practice…

Art as Therapy

I want to end this course with a short story. It has nothing to do with herbal medicine and at the same time it has everything to do with herbal medicine. It is about being creative, digging deep to find our own resources and helping our clients discover theirs. It is about healing from the inside out. It is about depth, truth, and innate body wisdom. Art is one of the many, and most favorite – aside from herbs – of the tools I use in my own healing process and with my clients, when they are receptive. This story highlights the power of "giving permission" to a woman to trust her body and the importance of clearing obstacles in order to let the healing happen.

Colleen's Birth

Colleen came to me in her late 30s. She was the mother of a creative and sweet 4-year old boy who had been born after a cesarean delivery that she felt had been forced upon her when she went into labor while on a trip to the Carolina Coast. Herself a woman of imposing stature – at least 5′11″ with a healthy, large boned Nordic build, her baby was deemed to be "too big to be born vaginally" – or so she was informed by the nurse-midwives who examined her in the triage area of the labor and delivery unit of the small South Carolina Hospital. The obstetrician on-call agreed and without much of a chance at labor, her hopes of a natural birth, or at least a vaginal birth, dashed in an hour's time, she was whisked off for a cesarean. It wasn't so much the c-section that bothered her, it was the way she was objectified and almost even blamed for her baby being large. The baby was a big one, 9 pounds and change. But again, she was no small-fry. I myself am only 5′3″ tall and weigh about 110 pounds at my non-pregnant baseline, and my first baby, an 8-pound, 4-ouncer slid out pretty smoothly. So doing the math and comparing pelvic size, a 9-pounder wouldn't necessarily be too much of a stretch for her – well, a stretch yes, but more in the ring of fire sense!

Admittedly there are times when a baby is just too big to clear a mom's pelvis, or the combination of the mom's pelvic shape and muscle dynamics prevent a vaginal birth, but in truth these situations are rare, notwithstanding obese babies secondary to the mom having gestational diabetes. With ample freedom to try different positions in labor, good support, and sometimes some adjunct tools for relaxation, most moms can birth vaginally.

Colleen came in to my office literally begging for help. She was in her 8th month of her second pregnancy which she'd delayed for fear of another cesarean, and the nurse-midwife was starting to sing a similar tune about big babies and c-sections and induction. Colleen was a well-educated and intelligent woman, and her husband, too, was well informed and very involved in the process. I heard her deep need to see what her body could do, to restore some faith in her belief that she could actually give birth, and her very deep desire to regain some power even if she did ultimately need another cesarean. My one condition for working with her was that she switch to my OB backup doc and if he agreed that we could try a VBAC at home, we would; otherwise I would be a doula for her in the hospital. She did and he agreed to support her with a reasonable "trial of labor" at home under my supervision.

We started working together…intensively and often to make up for lost time as she was so far along in her pregnancy with so far to go emotionally. She felt stuck and it was written all over her. She was stuck in the anger of her last experience, stuck in the fear of another cesarean and a long and uncomfortable recovery, stuck in feeling her body betrayed her. So I dug deep inside for tools to help her get unstuck – because stuck is exactly what you don't want in labor! And it came to me one day. "Colleen, I am sending you home with this pad of paper and package of soft pastel crayons. I want you to draw and draw and draw – even if you don't know how to draw – I want you to draw until you can draw an image of that baby coming out of you vaginally. OR however it's gonna birth. And we're going to make peace with all of your feelings along the way. Weeks into the process Colleen struggled – first with her ability to draw, then with her inability to draw her baby getting born vaginally. Sometimes the images were angry,

other times helpless; but finally, at the 11th hour, a breakthrough and a series of images of a woman in a semi-squatting position with a baby coming further and further out of her vagina! And born!

Shortly after Colleen went into labor. Unfortunately, when she was nearly completely dilated, she bled heavily and we made a stat transfer to the hospital. She did give birth vaginally and was completely fine as was baby despite the drama of what was likely a small partial premature separation of the placenta, but with a prior cesarean, we couldn't be too cautious about rupture. In spite of the transport to the hospital, in many ways Colleen gave birth to herself as an empowered woman. I daresay that I believe this would have been the case even had another cesarean been necessary. What she needed was to own her feelings and not have them taken away from her as was done by careless and callous medical treatment in the past.