## **LESSON 43:**

## **Short Answer:**

1. List 3 herbs commonly used in the treatment of hot flashes.

Examples include motherwort, American ginseng, sage, black cohosh.

2. List 5 primary goals for helping women experience menopause safely, healthily, and with grace.

Encourage life-long celebration of self with the menopause process.

- Optimal nutrition
- Address physical discomforts and imbalances
- Address sleep problems
- Address any mental/emotional and libido imbalances
- 3. While memory difficulties may have an underlying hormonal component, name at least 2 factors that can exacerbate memory problems.

Lack of sleep and emotional stress

4. Why is St. John's wort contraindicated for a woman on Coumadin?

Should address CYP450 or liver metabolism

- 5. List 3 herbs you would include in a suppository for a 65-year old sexually active woman with vaginal dryness and irritation due to atrophy and briefly discuss why you chose them. Examples:
  - calendula promotes tissue regeneration through re-epithelialization, antimicrobial activity to help due to increased susceptibility to microbes due to break down of tissues
  - marshmallow root a demulcent and vulnerary the mucilage from the root covers and protects the mucosa from irritation
  - comfrey root heals damaged tissues, also highly mucilaginous to protect and coat the tissues (this root should not be used long term over a few weeks due to PA content
- 6. A woman experiences a single episode of heavy vaginal bleeding at the onset of her menopause. Is this a reason for her to worry? Why or why not?

No, this is not atypical for woman at this stage of their life to experience at least one episode of heavy vaginal bleeding at the ONSET of menopause, but if it has been >12 months of amenorrhea, she needs clinical evaluation by her health care provider.

### Hands-On/Clinical:

A 54-year old woman comes to you with the following menopausal concerns: night sweats, anxiety, heart palpitations, and insomnia. Create a comprehensive strategy and protocol, along with appropriate lifestyle, nutritional, and herbal recommendations that you feel will best address both the underlying causes of the symptoms and the symptoms themselves.

Write the formula(s) out according to the style used in *Botanical Medicine for Women's Health* and include the common and botanical names, dose, duration of use, and any special instructions for use, for example, timing throughout the day, if any. Then, briefly describe your rationale for including each herb in the formula. Use at least 5 herbs.

## Sample example # 1:

Diet - be sure to eat a good whole foods diet rich in green leafy vegetables, whole grains, cold water fish, organic lean meats, good quality oils like olive oil and only organic dairy products if possible, beans, nuts and seeds

Exercise - work to do some form of exercise daily for 30 minutes each day. Some good activities are walking outside to get the benefit of the fresh air, yoga and other activities to get the heart pumping

Reframing ideas of menopause - rethinking menopause as a gift instead of a problem, finding time to do the things that you really enjoy in life and taking time to really take care of yourself

### Daily Tincture Blend

35 ml - hot flashes, night sweats, insomnia, anxiety, heart palpitations

Actaea racemosa (black cohosh) 30 ml - hot flashes, night sweats, heart palpitations

Melissa officinalis (lemon balm) 20 ml - heart palpitations, insomnia

<u>Withania somnifera</u> (ashwaganda) 15 ml - adaptogenic herb to improve overall response to stress and help with her anxiety and trouble sleeping

Dosage: Take 3 ml 1-2 times a day

Tincture Blend for insomnia - all of these herbs in the formula are used to treat sleep disturbances and insomnia

Leonurus cardiac	(motherwort)	20 ml -nervine relaxant, anxiolytic
Passiflora incarnate	(passionflower)	20 ml - nervine relaxant, anxiolytic
Eschscholzia californica	(California poppy)	20 ml - nervine relaxant, sedative, anxiolytic
Piper methysticum	(kava kava)	20 ml - nervine relaxant, anxiolytic
Valeriana officinalis	(valerian)	20 ml - nervine relaxant, sedative, anxiolytic

Dosage: Take 3-5 ml 1/2 hour before bedtime. If needed repeat the dose an hour later. If this formula doesn't work within the first week, lets re evaluate. Sometimes Valerian can actually be energizing to a small population of people.

## Sample example # 2:

### Lifestyle recommendations:

- Moderate open air exercise
- Time to rest
- Sleep hygiene

## Formula:

Salvia officinalis (sage)	30ml
Humulus lupulus (hops)	25ml
Leonorus cardiaca (motherwort)	20ml
Craetegus oxycantha (hawthorn)	15ml
Passiflora incarnata (passionflower)	10ml

Dose: take 5ml twice daily, in the afternoon and before bedtime

## Sample example # 3:

## Lifestyle

- Pay close attention to nutritional needs (see below).
- Take care to get the appropriate amount of exercise. Engage in at least 30 minutes a day of a mixture of strength building, cardiovascular (brisk walking), and flexibility. Yoga would be great...as it helps mentally, emotionally, and spiritually as well!
- If currently a smoker, please take measures to quit immediately.
- Efforts should also be made to decrease alcohol consumption.
- Maintain regular sexual activity as well.

## **Emotional Support**

Make sure to see to all emotional needs by engaging in quiet time, reflection, meditation, and other empowerment exercises. Take advantage of menopause support groups (or even just informal chats with supportive likeminded women)! If depression or anxiety should become more severe, it may be wise to seek counseling or additional support.

### Nutritional Needs:

Eat a whole foods diet that includes whole grains, beans, nuts, seeds, organic fruits and vegetables, organic lean meats, cold water fish, good quality oils, and organic dairy products.

Make sure to include good calcium sources and healthy sources of phytoestrogens. Soy should also be added as a part of a heart healthy diet. The diet should also be high in fiber, low in fat, and rich in minerals. The latter can be accomplished by including cooked greens and edible seaweeds.

Monosaturated fats are encouraged (olive oil and canola oil). Herbal vinegars can also be added to the diet as a great source of minerals (1-3 tablespoons a day if possible). This will go a long way in the prevention of disease and to fill in nutritional deficiencies that are common during this period of life.

Note: To help prevent hot flashes and night sweats, it is best to avoid spicy foods and caffeine (with the exception of green tea).

## Supplements:

Essential fatty acids and multivitamin supplements can be added as well as a Vitamin D supplement for osteoporosis prevention.

## **Nourishing Herbal Infusion:**

Equal parts of:

Urtica doica (nettles)

Avena sativa (milky oats)

## *Trifolium pratense* (red clover)

\*Steep 35 g of dried herb in a liter of boiling water overnight\*

1-4 Cups of this infusion should be taken daily.

The herbs above are used to provide large amounts of vitamins, minerals, proteins, phytoestrogens, among other benefits. Stinging Nettle can also double as a great method to help with adrenal stress.

## Herbal Formula:

Leonorus cardiaca	(motherwort)	25 ml
Actaea racemosa	(black cohosh)	20 ml
Salvia officinalis	(sage)	15 ml
Verbena spp.	(blue vervain)	15 ml
Anemone pulsatilla	(pulsatilla)	15 ml
Passiflora incarnat	a (passionflower)	10 ml

Dose: 5 ml twice daily. For best results use for at least 3 to 6 months.

Motherwort - For supporting the liver and nourishing the blood, treating her insomnia, helping with her heart palpitations, and easing her anxiety.

Black cohosh- For treatment of her night sweats

Sage – For treatment of her night sweats

Blue vervain – For the ease of her anxiety

Pulsatilla – For the ease of her anxiety

Passion flower – For her menopausal related insomnia

## **LESSON 45:**

- 1. List 3 non-soy food sources of phytoestrogens. Lentils, chickpeas, mung bean sprouts, greens, flax
- 2. What is the greatest health concern you might have for Dora (case presented in this lesson)? If Dora had a history of endometrial cancer, or major risk factors, which herb(s) might you remove from her formulas?

The greatest health concern for Dora is increased risk for cardiovascular disease as she is age 50 and has a strong family history of CVD and stroke. If Dora had a history of endometrial cancer, I would remove Hops from her formulas.

- 3. List at least 3 symptoms of sleep disturbance you might see in a woman significantly disturbed by night sweats. How might you advise her to improve her symptoms and sleep? Three symptoms of sleep disturbance one might see in a woman significantly disturbed by night sweats are memory difficulties, anxiety/irritability, and exhaustion. She could use Formula One in the lesson; using the cool down tincture throughout the day and again just prior to bed; and the tea 1 hour before bed and the black cohosh with the tea or tincture. Wearing light clothing in natural fiber and keeping extra dry clothes and sheets by the bed to change into if awoken by a night sweat is helpful. Use cotton sheets and quilts. Avoid spicy foods, caffeine, and keep alcohol to a minimum. Have a spritz bottle of sage and lavender essential oil or tea by the bed to spritz on after a hot flash/night sweat. Keep a small fan near the bed and run on a low breeze. Take a cool shower before bed.
- 4. A 48-year old woman tells you that she has been having hot flashes off and on for several months and has not had a period in 3 months. She is experiencing some breast tenderness and thinks she might have a UTI because she is urinating more often than usual. Discuss her symptom pictures, how you might approach her case, and what herbal recommendations might be appropriate. Is any medical work up necessary?
  I would have her see her health care practitioner to rule out pregnancy (she is have 3 symptoms of perimenopause that can also be symptoms of pregnancy), thyroid issues, check for a UTI and to make sure she is up to date on screening tests. I would offer her the herbal formulas in your Protocol 1: Cool Down Tincture and Cool Down tea, along with 3ml black cohosh taken twice daily alongside the tea or tincture. If she was evaluated for a UTI, and did not have an infection, the urinary frequency might be related to the urogenital symptoms of peri-menopause/menopause. She could decrease bladder irritants such as caffeine, and see if symptoms improve with the herbal tinctures/teas in Formula 1. I believe her breast tenderness might normalize with the use of the formulas as well and wouldn't initially add any other formulas/supplements for her.
- 5. Using the following tinctures either from your herb kit purchases/prepared independently, place 3-5 drops on your tongue and note the tastes and sensations. You do not need to submit your observations. (sage, black cohosh and passionflower tincture).

## LESSON 46:

### **Short Answer:**

1. Dianne has been diagnosed with severe depression that began after the unexpected death of her husband over a year ago. She has been unable to work and is neglecting her own self-care. She believes that her depression is caused by the fact that she is also going through menopause. How do you respond?

I would tell Dionne that although she is associating her depression with the change of life she is journeying through, it is more likely that her severe depression began and is caused by the loss of her husband. Nonetheless, regardless of the cause of the depression, severe depression warrants treatment, especially because it has interfered with her ability to work and take care of herself.

2. This same client asks if St. John's wort alone is enough to treat her severe depression. How do you answer?

St. John's wort is effective for mild to moderate depression, but will not be adequate for severe depression.

3. Carolyn has been blue for about a week since the break-up of a recent 6-month relationship with a guy she had hopes of being with. She's been hanging around in her pajamas, eating a lot of ice cream from containers, and crying in front of old movies. She has no prior history of depression, is keeping up with her email, and talking on the phone and visiting with friends. She has no suicidal ideation. Would you classify this as major depression? Why or why not?

No – Carolyn is very socially active. She has no ideas of suicide. She does not have 5 or more of the symptoms described in the American Psychiatric Association guidelines (5 or more needed) nor the duration (2 weeks or longer).

- 4. Patricia is unable to sleep because of racing thoughts about an upcoming nursing school exam. This happens to her every time she has to take a test, and it really affects her confidence her confidence in addition to leaving her feeling exhausted.
  - a. What is her most likely 'diagnosis'? Insomnia due to test anxiety
  - b. Name at least 2 categories (actions) of herbs you'd want to include in a formula for her. anxiolytics, nervines, adaptogens
- 5. List 5 medical conditions that can mimic depression (do not include depression, bipolar disorder, or other psychiatric illnesses).

drug/alcohol abuse, Cushing's syndrome, electrolyte/calcium imbalance, viral mononucleosis, thyroid disease

6. List 5 common drug classes that can cause depression as a side-effect. barbiturates, cholinergic drugs, beta blockers, corticosteroids, benzodiazepines

7. Your 48-year old client is a busy accountant. It is tax season and she is working long hours, drinking more coffee than usual, and is just entering menopause. She is finding it hard to concentrate on her work; she is experiencing small memory lapses and she feels anxious about keeping up. She was considering a simple combination of bacopa and kava kava and asks your opinion of whether this might be helpful for her symptoms. Is this an appropriate combination? Why or why not?

Her key symptoms are anxiety and mental fatigue. Bacopa is nervine, and also improves cognitive function...Kava kava will help with anxiety. Passion flower would be a better choice than kava because 1) her high caffeine intake...kava can cause stomach upset and irritability with some people...so can a lot of coffee (quitting coffee would be great, but unlikely during tax season... and 2) concerns with hepatoxicity/ duration – kava should not be taken more than 3 months in duration and should not be combined with alcohol due to concerns with hepatoxicity...3 months duration is probably enough to get her through tax season

- 8. What is the recommended daily dose of kavalactones in kava kava products? 60 mg 2-4 x day
- 9. For what indications is hops approved by the German Commission E? Mood disturbances, restlessness, anxiety, sleep disturbances
- 10. List 5 indications for passionflower?

Anxiety, insomnia, nervous irritability, tension/stress, headache pain

11. What active constituents in kava kava are believed to be responsible for the herbs anxiolytic effects?

Kava lactones, concentrated in lateral roots of plants

#### Hands On/Clinical:

- 1. Jeannine is a 48- year old woman who comes to you with concerns of heavy vaginal bleeding. She has been diagnosed with fibroids and is really not interested in the pharmaceutical treatment options. Further, she has been unable to sleep for several months, with troublesome thoughts keeping her awake. During the day she feels tired and irritable. She has gained about 5 pounds in the past few months, she believes due to emotional overeating; she is also eating more to keep herself during the day, grabbing for candy bars or coffee and pastries. She is under tremendous amount of pressure at work and is finding herself depressed and overwhelmed.
  - a. Put together a comprehensive herbal formula or set of herbal formulas to address her symptoms and possible underlying causes. Include the does, duration of use, and forms for all botanicals to be included in the formulas, their botanical names and the rationale for inclusion.

## Sample example # 1:

Tincture:

Achillea millefolium(yarrow)30 mlAlchemilla vulgaris(lady's mantle)10 mlPaeonia lactiflora(white peony)10 mlActaea racemosa(black cohosh)20 mlWithania somnifera(ashwagandha)30 ml

Dose: 5 ml daily for 3 months

The yarrow and lady's mantle are included as uterine astringents to reduce her heavy vaginal bleeding. The white peony is included as part of the fibroid treatment, as a uterine circulatory stimulant. The black cohosh is included as a hormonal modulator and anxiolytic. Ashwaganda, an adaptogen, is included to help with hormonal balance, sleep, anxiety, depression, and blood sugar imbalances.

The following tincture is to help with her insomnia:

Passiflora incarnate	(passionflower)	25 ml
Humulus luplus	(hops)	25 ml
Eschscholzia californica	(California poppy)	25 ml
Scutellaria lateriflora	(skullcap)	25 ml

Dose: Take 4 ml for two to four doses within two hours of bed. Continue for 3 months.

I would want to be sure she has seen her primary care physician to rule out endometrial carcinomas or other serious disorders that may cause heavy vaginal bleeding.

## Sample example # 2:

Herbal formula

Actions include, blood movers (TCM) anxiolytics, adaptogens

Vitex agnus-castus(chaste tree)20 mlPaeonia lactiflora(white peony)20 mlActaea racemosa(black cohosh)20 mlWithania somnifera(ashwagandha)20 mlCinnamomum aromaticum(cinnamon)10 mlZingiber officinalis(ginger)10 ml

Take above formula 4 ml bid for 3 months

If having acute heavy bleeding: *Achillea millefolium* (yarrow)

Infuse 1 Tbsp. of dried herb in 1 cup boiling water for 15 minutes Repeat up to 3x daily

If making the tea isn't practical for her, she could take equal parts of the following tincture instead:

Capsela bursa-pastoris (shepherd's purse) Alchemilla vulgaris (lady's mantle)

3 ml every 20 minutes for up to 2 hours

If having severe hemorrhage, be sure to seek medical care.

Tea before bed to help sleep: Lavendula officinalis (lavender) Melissa officinalis (lemon balm) Matricaria recutita (chamomile) Avena sativa (milky oats)

Mix equal parts together in a quart size jar. Steep 1Tbsp. in 1cup boiling water for 5-10 minutes and drink half hour before bed.

b. She should be checked for anemia if she has been bleeding heavily. If she is anemic, she can include the following herbal tea

Urtica doica (nettles) - also helps with sugar cravings Trifolium pratense (red clover) Taraxacum officinale (dandelion)

2 Tbsp. of each in 1 qt. boiling water. Let sit overnight.

Also take one Tbsp. of blackstrap molasses daily

If more severe anemia, she can also take daily dose of Floradix & Vitamin C

## Sample example # 3:

- b. Does Jeannine have anemia from all the heavy bleeding? She should get tested for it. Also, has she had her thyroid checked? For the rest of this answer, I'm assuming her results for both are normal.
- a. I think her situation is kind of complicated, with the heavy bleeding/fibroids, sleep and anxiety, and poor lifestyle choices. Education about healthy eating choices, easy and healthy snacks and meals, etc. could help a lot. And a tincture:

Withania somnifera	(ashwagandha)	30ml	adaptogen, anxiolytic
Achillea millefolium	(yarrow)	30ml	bitter, astringent
Arctium lappa	(burdock)	25 ml	alterative, help clear excess estrogen
Zingiber officinalis	(ginger)	15 ml	taste, warming, anti-inflammatory
Take 5ml twice a day.			

A relaxing pre-bed time tincture (passion flower, gotu kola, California poppy) could help her get to sleep, but it is just addressing the symptom rather than the cause of the problem, and in the long run I think she'd be more helped by the daytime tincture.

## b. Are there any medical diagnoses that should be ruled out or considered when putting together her protocol?

Medical diagnoses that should be ruled out or considered when putting together her formula are thyroid disorders, other causes for her heavy uterine bleeding, underlying medical causes of her depression and sleep disturbances.

2. Please describe the role of each of the herbs in the following formula, including actions and applications. What could this formula potentially be used to treat (list at least 3 conditions)? St. John's Wort (Hypericum perforatum)

**Motherwort** (Leonurus cardiac)

Bacopa (Bacopa moniera)

Eleuthero (Eleutherococcus senticosus)

Rosemary (Rosamrinus officinalis)

St John's Wort (Hypericum perforatum):

Antidepressant and nervine. Useful for mood elevation; insomnia, psychological complaints associated with perimenopause including irritability. This is a good overall uplifting herb for a formula.

Motherwort (Leonorus cardiac):

Anti-anxiety, improve circulation, nervine. Useful for stress, irritability. General central nervous system toner, uplifting due to the anti-anxiety effects and improvement in irritability.

Bacopa (Bacopa moniera):

Bacopa can be used to assist with depression, emotional stress, mental exhaustion, forgetfulness, anxiety, enhancing learning and memory. It is an adaptogen and is useful for overall enhancement of all body functions and helps the body with resistance to the ill effects of stress.

Eluethero (*Eleutherococcus senticocus*):

Adaptogenic, antidepressant, to treat anxiety, insomnia, mental strain, stress, energy depletion. Eleuthero is also an adaptogen and is useful for depression, exhaustion, improvement in mental in physical stamina and is useful for physical or nervous stress.

Rosemary (Rosmarinus officinalis):

Decrease in anxiety, increased alertness, antidepressant, improve cognition. This is included in the formula for its circulatory stimulant effects and is useful for depression, and memory difficulties.

Three conditions this formula potentially could be used to treat:

- Mild to Moderate depression
- Improve memory and learning by enhancing cerebral blood flow
- Improve stress responses associated with mental exhaustion
- 3. Sara, 50 years old, has recently been diagnosed with mild depression and very mild hypothyroidism. She is starting on synthroid, but her doctors said if she wanted to augment her medications with herbs, she would work with her to modulate her medication dose. Sara has no interest in pharmaceutical antidepressants and would like to work with an herbal formula. She is experiencing hot flushes, sweating, insomnia, dryness of skin, and emotional lability. What herbs would you include in her formula and why? What TCM diagnosis might be applied to Sara? Are there any TCM herbs you'd include in her formula? Why?

TCM diagnoses: Blood Deficiency and Yin Deficiency.

Examples of herbs to include: TCM herbs that might be included albizzia (for depression, insomnia, irritability), eleuthero (to treat stress, insomnia, depression, anxiety), bupleurum and peony (to help with stagnant liver qi and hot flashes and sweating).

## LESSON 47:

### **Short Answer:**

1. Why do excessively overweight women often have high estrogen levels?

Fat cells produce the aromatase enzyme that causes the body to produce more estrogen

2. Do women of reproductive age more commonly experience DUB associated with ovulatory or anovulatory cycles?

Anovulatory

3. What are the two main categories of botanical treatment for DUB?

Treatment of acute non-life-threatening bleeding episodes; treatment/prevention of chronic dysfunctional uterine bleeding

4. What two types of formulas are typically provided in cases of DUB?

One to treat symptoms (heavy bleeding) at the time it occurs; one to treat/prevent DUB (address underlying causes

5. List 5 modifiable factors that may contribute to the development of DUB?

Obesity, cigarette smoking, prolonged stress, iron deficiency anemia, using IUD devices (unless they contain progesterone)

- 6. List 3 herbs that might be used to address DUB primarily through a hormonal mechanism. chaste berry, dong quai, white peony
- 7. List 3 herbs that might be used to address DUB primarily through their astringency. yarrow, shepherd's purse, white oak bark
- 8. What 2 thyroid conditions can lead to excessive uterine bleeding?

hypothyroidism, hyperthyroidism

9. What effects does excessive estrogen have on the endometrium that can lead to increased uterine bleeding?

Can cause excessive thickening of endometrium accompanied by lack of spiral arterioles causes tissue fragility and erratic breakdown (heavy bleeding, flooding)

10. List 3 herbs that are commonly used by herbalists to improve the clearance of hormones by the liver.

dandelion root, motherwort, Oregon grape root

#### Hands-On/Clinical:

1. What do you know about Sandra's case that will help you determine what might be going on? Formulate a differential diagnosis and explain it with her symptoms and medical exam.

Chief complaint unpredictable uterine bleeding/flooding

- a. Sandra is clearly perimenopausal (age 51, perimenopausal levels estrogen, FSH & LH, and has perimenopausal symptoms)
- b. level and pattern and circumstances of irregular bleeding has been reported
- b. normal gynocological exam, but slightly thickened endometrium and small uterine fibroids
- c. sexually active, currently using condoms for birth control, no history of STD's reported
- d. hypothyroidism well controlled
- e. physical exam and health history show good health, normal weight, no psychiatric problems
- f. lab tests show normal hematocrit/hemoglobin levels, normal PAP, normal endometrial biopsy

**Differential diagnosis**: Probably DUB due to perimenopausal hormonal dysregulation, but will need to

rule out sexually transmitted diseases (no record of recent tests, not sure about regularity or type of condom use)

- cancer has been ruled out (endometrial biopsy, PAP, ovaries normal)
- mild hypothyroidism is under control
- was tested for coagulation defects in 20's
- normal health (no diabetes, Cushing's disease, liver disease)
- traumas to vulva, vagina, cervix; and structural disorders ruled out in physical
- pelvic infections ruled out during physical
- Sandra says bleeding does not occur after exercise or intercourse (could ask her about her exercise levels, but probably not excessive)
- medications that could cause DUB have been reviewed/ruled out (I'm assuming) during physical
- Sandra appears to be happy, well-adjusted but at this point is stressed out from heavy bleeding, so stress level needs to be addressed in treatment (it could exacerbate hormonal dysregulation)
- No mention of tests for STD's, HIV/AIDs, this needs to be addressed

# 2. Develop a list of further questions you think would be important to ask before formulating a botanical plan for Sandra.

## Examples:

- what is your energy level (fatigue?)
- what is your typical diet like
- what is your level of physical activity/ exercise regime
- what is your stress level at work/home etc.

- are you using latex condoms for birth control? are you practicing "safe sex" by using a latex condom every time you have intercourse
- have you and your partner had a recent test for STD's, HIV/AIDs?
- 3. What test should Sandra have before you initiate a botanical protocol? STD's, HIV
- 4. What botanical protocol do you want to provide? You're mulling over a number of different herbal categories in your mind and you come up with the following list of herbs as "finalists" for her formula. (List at least 5 herbs you are considering and briefly describe why for each.)

### EXAMPLES list of herbs considered:

- 1. ashwagandha adaptogen, HPA function, nervine, helps some with insomnia, iron rich
- 2. chaste berry hormone regulation of progesterone/estrogen balance
- 3. black cohosh hormone regulation, hot flushes & sweats
- 4. red raspberry leaf uterine tonic, astringent
- 5. motherwort uterine tonic, nervine, irregular menstruation, uterine fibroids
- 6. dandelion root hormone regulation (helps with liver's ability to metabolize/eliminate hormones) mild laxative
- 7. hops hot flashes/night sweats
- 8. sage night sweats
- 9. lavender nervine for stress due to erratic heavy bleeding
- 10. yarrow uterine astringent, antihemorrhagic
- 11. shepherd's purse uterine astringent, antihemorrhagic
- 5. You finally decide upon the following two tincture formulas for Sandra. One is for acute bleeding and one is for addressing underlying hormonal dysregulation and her general perimenopausal symptoms. Write out your formulas according to the format in *Botanical Medicine for Women's Health*. Give the proportion of each herb in the formula, the dose, the form used, and specific instructions for taking the formula.

### Sample example #1:

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Erigeron canadiensis	(erigeron)	30ml
Capsella bursa pastoris	(shepherd's purse)	30ml
Rubus ideus	(red raspberry leaf)	30ml
Cynnamomum zeylanicum	(cinnamon)	10ml

Take 3 ml every 20 minutes for up to 2 hours.

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General	tormill	а:

Vitex agnus castus	(chaste berry)	30ml
Peonia lactiflora	(peony)	30ml
Urtica dioica	(nettle)	20ml
Actea racemosa	(black cohosh)	20ml

Take 3 ml 2 times per day, first thing in the morning and before going to sleep.

## Sample example # 2:

## Acute bleeding tincture:

Achillea millefolium	(yarrow)	40 ml
Capsella bursa pastoris	(shepherd's purse)	30 ml
Panax notoginseng	(tienchi ginseng)	30 ml

Dose: at first indication that menses is starting, take 2.5 ml repeated every 15 minutes for up to 2 hours until bleeding abates.

## Tincture for underlying causes:

Vitex agnus castus	(chaste berry)	30ml
Eleutherococcus senticosus	(eleuthero)	30ml
Withania somnifera	(ashwagandha)	20ml
Actaea racemosa	(black cohosh)	20ml

Dose: take 5 ml twice daily

## Sample example # 3:

## hormonal regulation tincture:

Vitex agnus castus	(chaste berry)	30 ml
Schisandra chinensis	(schisandra berry)	30 ml
Withania somnifera	(ashwagandha)	20 ml
Rumex crispus	(yellow dock)	20 ml

Dose: take 5 ml twice a day for 2-3 months

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## acute bleeding tincture:

Capsella bursa pastoris	(shepherd's purse)	20 ml
Achillea millefolium	(yarrow)	20 ml
Cvnnamomum zevlanicum	(cinnamon)	10 ml

Dose: 2.5 ml every 15 minutes for up to two hours, until bleeding stops.

## 6. Describe the rationale that led you to select the herbs in the final formula from the list you had previously made.

## Sample example # 1 (as corresponds with example # 1 above):

Vitex to improve estrogen:progesterone ratio (often imbalanced in hypothyroidism);

Peony also is a hormonal regulator and ovarian tonic;

Nettles is a nutritive tonic and also works as adaptogen;

Black cohosh is to relieve night sweats.

## Sample example # 2 (as corresponds with example # 2 above):

In the acute bleeding formula, I used all the astringent and anti-hemorrhagic herbs I was considering. In the formula for hormonal balance I chose chaste berry as a hormonal modulator, eleuthero and ashwagandha are adrenal restoratives (and will hopefully help with her hormonal balance and insomnia and digestive system), and black cohosh is a hormonal modulatory herb and will also help with accompanying perimenopausal symptoms.

## Sample example # 3 (as corresponds with example # 3 above):

chaste berry for hormonal modulation, schisandra as an adaptogen and to help with night sweats, etc., ashwagandha - adaptogen and nutritive, yellow dock - hepatic and hormone clearance/regulation

## 7. What can Sandra expect in terms of improvement and when should she see or be in touch with you again for follow-up?

Example of an answer: (key is that the hormonal regulation can take several months) I would counsel Sandra that she might see improvement in symptoms of the heavy bleeding when she uses the 2nd formula within a couple of hours of beginning the formula. However, I would let her know that it can take several months to regulate hormones and achieve adequate control of bleeding and prevent recurrence of episodes. Even if after a few months, it seems that she is no longer having episodes of erratic heavy bleeding, she should keep the acute bleeding formula on hand, as unexpected episodes of bleeding are likely to occur, although probably less frequently, as her hormones shift into a menopausal state. I would ask that we set up a follow-up for about 4 weeks to assess progress and see how everything is going. I might then want to touch base by phone/or in person in another month after that. I would suggest an in-person follow-up at 3 months from the first consultation. I would ask that she get in touch if she had questions/concerns in between those scheduled times.

## 8. What instructions do you give Sandra regarding when to see her doctor or get immediate medical care?

if she soaks 2 full size pads within 30 minutes or less any continuous vaginal bleeding

if she experiences any of the following from blood loss: dizziness, light headedness, fainting, hypotension, rapid heart rate, shortness of breath, pallor vaginal bleeding accompanied by fever, pelvic pain, ill-smelling discharge

## 9. What would you do differently if Sandra had an abnormal endometrial biopsy or abnormal pap and is coming to you for herbal care?

I would ask her to consult with her doctor and receive appropriate treatment first, and then call me for an appointment afterward. I could then offer supporting care for recovery (adaptogenic/nutritive/tonic herbs as appropriate for the reproductive system and herbs to support the immune system, dietary suggestions to optimize health).

# 10. In a slightly different scenario, Sandra came to you before seeing her gynecologist. How might your response to her differ? What would you do differently, if anything?

I would tell her that I could not consult with her at all until after she has seen her gynecologist, and she should do so right away.

## **LESSON 48:**

### **Short Answer:**

## 1. List 5 psychological factors that can interfere with erotic response?

Fear of not being loved, fear of pregnancy, previous sexual trauma, poor body image, religious guilt

## 2. List 5 menopausal factors that can have an impact an optimal sexual functioning and pleasure.

Vaginal dryness, vaginal atrophy, declining hormone levels, pelvic organ prolapse, urinary incontinence, societal and personal views on ageing and sexuality

### 3. List 5 medical conditions that can cause loss of libido

Diabetes, cardiovascular disease, pituitary tumors, chronic renal disease, and depression

## 4. What 3 classes of pharmaceutical drugs can lead to diminished libido?

antihypertensives, antidepressants (especially SSRI's), tranquilizers

## 5. List 5 possible causes of dyspareunia.

Lack of vaginal lubrication, vulvar dryness, previous sexual trauma, cervicitis, uterine prolapse

## 6. List 3 herbs that might be used to treat female anorgasmia.

Three herbs that might be used to treat female anorgasmia include gingko, damiana and muira puama.

## 7. Why is sexual dysfunction commonly overlooked as a diagnosis (Briefly give 2 reasons).

Some women are not comfortable discussing this issue with their health care provider. Also, lack of training in female sexual function and dysfunction on the part of the health care provider could cause him/her to overlook the signs.

8. You suspect your client has hypothyroidism causing low libido. List 3 additional symptoms that caused you to consider low thyroid.

Fatigue, dry skin/brittle hair, lowered body temperature/intolerance to cold

## 9. List 5 clinical applications for the use of motherwort throughout a woman's life from postpartum through menopause.

<u>Postpartum</u>: irritability, anxiety, postpartum depression (mild to moderate), help with letdown in breastfeeding if nerves/anxiety is factor, uterine tonic for extended postpartum bleeding <u>Menopause</u>: anxiety, irritability, heart palpitations, uterine tonic for DUB, part of formula for insomnia due to hormonal dysregulation

## 10. By what mechanism(s) do pelvic floor exercises most likely increase sexual response?

They increase muscle tone of pelvic floor, increase blood flow to the region which would help with sexual response. Also, there is the psychological factor that a woman who is practicing pelvic floor exercises for the purpose of sexual function is owning her sexuality and being proactive in improving it...a positive factor too.

#### Hands-On/Clinical:

Lara is a 57-year old single woman. She has 2 grown children, is a successful non-profit administrator and owns a successful small herb business providing culinary herbs to local fine restaurants. She is, by any standards, an intelligent and attractive woman who has kept herself in good shape and good health. She has a self-deprecating but good sense of humor and seems a little nervous talking about sex. She was divorced 3 years ago after several years of sexual debility in her marriage. Since menopause at age 50, she'd had a difficult time achieving orgasms with her husband and had difficulty with lubrication and her husband left her for one of her colleagues. She now has tremendous anxiety about entering into a sexual relationship with the man she's been dating for a few months. They've been friends for years and have been going slowly with transitioning into a sexual relationship so she's been able to "put things off." She experiences occasional stress headaches, mold constipation, and insomnia. Create a comprehensive herbal plan for her that will maximally address her issues and describe your rationale for of the herbs you include in any formula(s) you recommend. Also, list some of the things you say to her to help address her dilemma.

## Sample example # 1:

Symptoms: anorgasmic, vaginal dryness, anxiety, occasional stress headaches, mild constipation, and insomnia:

The overall plan will be to recommend healthy diet/exercise/ to support improved libido/reproductive health and help with the occasional insomnia and mild constipation. One herbal formula will help improve sexual function/libido and an herbal oil will be prepared for sexual lubricant. Adjunct therapies are recommended for occasional stress headaches and mild insomnia (see below).

## 1. Adaptogenic/tonic/nutritive formula: (anorgasmia, vaginal lubrication, libido, anxiety)

Withania somnifera	(ashwagandha)	25 ml (adaptogen, nervine, help with insomnia)
Asparagus racemosus increase libido & vaginal lubrio	(shatavari) cation)	25 ml (adaptogen, female reproductive tonic,
Avena sativa increase libido & overall juicin	(milky oats) ess)	30 ml (nervous system tonic, decrease anxiety,
Turnera diffusa ability to achieve orgasm)	(damiana)	10 ml (decreases anxiety, increase libido and
Cynnamomum zeylanicum aphrodisiac, flavoring)	(cinnamon)	10 ml (warming uterine circulatory stimulant,

Dosage: 5 ml 3x day

## Vaginal lubricant (for use prior to sexual intercourse)

- 2 Tbsp. jojoba oil (emollient, lubricant)
- 2 Tbsp. calendula infused sweet almond oil (emollient, lubricant, vulnerary, anti-inflammatory)
- 2 Tbsp. sweet almond oil infused with comfrey leaf (emollient, lubricant, vulnerary)

½ tsp. liquid vitamin E (d-alpha tocopherol) (anti-inflammatory, promotes healthy tissue)

10 drops sandalwood essential oil (pleasant scent, aphrodisiac

## 5 drops rose oil (pleasant scent, aphrodisiac)

Put all ingredients in 8 oz. squeeze bottle (the kind with the spigot that folds open and shut), shake well to mix.

Apply as needed prior to intercourse.

## Supportive lifestyle habits:

<u>Diet</u>: whole foods diet (organic if possible) emphasizing fresh vegetables and fruits, whole grains, fish, lean poultry, and organic dairy if tolerated. Consider supplementing with good quality multivitamin/mineral supplements that include zinc (20mg), vitamin E (400-800 IU), vitamin A (3000 IU); good quality fish oil and essential fatty acids.

Exercise: at least 30 minutes brisk walking/day or equivalent daily

Massage: regular massage will help reduce anxiety, stress headaches and insomnia

Sleep hygiene instruction: to promote healthy sleep habits

<u>Self pleasuring:</u> to help get in touch with sexuality, what pleases her, give her confidence when she is with her new partner

<u>Counseling:</u> consider if necessary - Feelings about prior sexual problems with ex-husband, if not already resolved, would negatively affect new sexual relationship.

What would I tell her to help her through this dilemma?

- Menopause changes us as much as adolescence did so many years ago. This is the perfect time to get to know your body again, and reclaim it as your own! Self pleasuring is a great way to get re-acquainted and find out what pleases you these days.
- Take your time, build your health and your relationship with your body. Find your sensuality, please yourself. Then having sex will be a part of self expression and not so scary:)
- Talk about safe sex and the logistics (STD tests, condoms, etc.) and work out the logistics with your partner beforehand.
- Have fun, keep a sense of humor:)

## Sample example # 2:

I would recommend that she consider counseling and Gottman Sex series for support in creating a healthy sexual experience with her new partner, I would encourage her that she is an attractive woman and remind her that communication with her partner and consideration of many levels of sexual closeness be considered.

For her symptoms, I would suggest the following formulation:

Tincture of

Withiana somnifera (ashwagandha) 30ml as an adaptogen and to support her nerves

Sculletaria laterfloria (skullcap) 25ml as a sedative and nervine

Rumex crispus (yellow dock) 25ml for constipation

<u>Glycirrhiza glabra</u> (licorice) 20ml as a phytoestrogen to support menopausal change, aid with

vaginal lubrication.

In the mornings, she may eat oatmeal with ground flax to support her mood and her constipation. I would recommend drinking half as many ounces of water as her body weight daily, that she eliminate or reduce caffeine intake and only drink before noon, that she have a massage once every week for a month and then 1-2 times a month for a few months to reduce tension headaches, that she take an omega 3 supplement daily to support her mood, increase vaginal lubrication and reduce inflammation that may contribute to tension headaches, that she consider using natural lubricant with intercourse, once she begins this in her new relationship.

## Sample example # 3:

Tincture:

Humulus lupulus	(hops)	20 ml
Turnera diffusa	(damiana)	20 ml
Withania somnifera	(ashwagandha)	20 ml
Gingko biloba	(gingko)	20 ml
Panax ginseng	(ginseng)	20 ml

Dose: 4 ml twice daily.

Additionally, I would suggest Lara supplement with vitamin E (400 IU daily) to reduce inflammation and promote healthy tissue. I would recommend pelvic floor exercises to promote circulation and improve tone. I would encourage Lara to eat a diet high in fruits and veggies (to relieve constipation), with plenty of water, and EFAs (reduce inflammation). She could also include 1-2 Tbl flax meal in her diet each day for estrogenic effects and to improve constipation. I would also encourage Lara to consider counseling to deal with her anxiety about entering into a sexual relationship and navigating this new phase of her life.

I would remind her that she is an intelligent, attractive, healthy woman who deserves to be happy and pursue what she wants. I would tell her that it is completely normal to feel anxious about entering a sexual

relationship (no matter what age) and it's fine for her to take her time. I would encourage her to relax, be confident in herself, and to be open and honest with her partner about her feelings and her needs.

Follow up in 3 months to evaluate progress.

Rationale: The hops are estrogenic, will improve vaginal dryness and atrophy, and will improve insomnia. Damiana is included for vaginal dryness, as an aphrodisiac, and for possible estrogenic effects. Ashwagandha is included to relieve anxiety, insomnia, and stress headaches. Gingko is included to help increase pelvic blood flow and possibly to help with anxiety. Ginseng is included to help with lubrication and for possible estrogen-like effects.

## LESSON 49:

### **Short Answer:**

1. Why does the risk of cardiovascular disease increase after menopause?

Because after menopause women lose the protective effects of estrogen on the cardiovascular system.

2. Your client has heart palpitations, mildly elevated blood pressure, a dry cough, and anxiety related to menopause. What herb, popular, among the Eclectic physicians, might be used very specifically in her case?

black cohosh

3. Your 68-year old client is experiencing shortness of breath when climbing stairs and fatigue when taking long walks. This is new for her and she is worried as her mother died of a heart attack at age 71. Her doctor tells you she has early mild CHF. Her cardiologist is supportive of her trying hawthorn. What is the first thing you need to know before providing this herb to her from your apothecary?

Is she taking any conventional cardiac medications? Hawthorne should not be combined with conventional medications.

- 4. What herb is primarily a choleretic, also possibly a lipid-lowering agent, and should not be used in patients with gallstones and bile duct obstruction? globe artichoke
- 5. What are some of the beneficial effects that dong quai might exert on the heart?

  Increased myocardial blood supply, reduced oxidative damage to ischemic myocardial tissue, reduced platelet aggregation
- 6. There are many theoretical contraindications to the use of herbs and cardiovascular drugs: however, a combination of dan shen and which 2 categories of medications should legitimately be avoided because of a realistic risk of increased bleeding? anticoagulants/antiplatelets; benzodiazepines
- 7. List 3 herbs with anticholesterolemic effects.

garlic, globe artichoke, fenugreek

- 8. A diet low in what nutrient is recommended as part of an effort to reduce hypertension? Sodium
- 9. Name two types of heart healthy diets.

DASH diet. Mediterranean diet

10. What is the role of alcohol in the prevention of heart disease? What type and how much is considered beneficial?

Mild to moderate use of alcohol elevates blood levels of HDL, lowers blood pressure and lowers insulin resistance. Red wine is favored (also a vasorelaxant, antithrombotic and anti-oxidant). Therapeutic levels are 1 serving/day for women and 1-2 per day for men.

11. Garlic, like statins, inhibits what substance that leads to cholesterol biosynthesis? HMG-CoA reductase

## 12. What side-effects are associated with consumption of hawthorn berries. Leaves and flowers?

Berries have no side effects - but leaves and flowers can cause any of these effects in some people: nausea, GI upset, palpitations, headache, dizziness, insomnia, agitation, or circulatory disturbance.

- 13. What is always the first line in the prevention and treatment of cardiovascular disease? Stopping smoking, improving diet & exercise, & other TLC (therapeutic lifestyle changes)
- 14. What two endocrine conditions are known to increase the risk of cardiovascular disease in women?

Diabetes and PCOS

### Hands-On/Clinical:

1. What are the risks Amy faces as a result of untreated high blood pressure, osteopenia, and high cholesterol?

There are several risks Amy faces as a result of untreated high blood pressure, osteopenia and high cholesterol. Untreated hypertension is a significant risk factor for stroke, congestive heart disease and kidney disease. High cholesterol, especially elevated triglycerides with lower HDL levels are associated with an increased risk of heart disease. Untreated osteopenia may progress to osteoporosis with associated risks of fractures that substantially increase a woman's risk for morbidity and mortality. As many as 25% of women who sustain a hip fracture will die within one year of the incident, and 50% of women who sustain a hip fracture do not return to their full functional status.

2. What further information do you need from Amy in order to help her achieve her health goals?

I would like to know what physical exercise Amy enjoys and engages in (if any) on a regular basis. I would like to review a 7-day diet diary including drinks. I would like to know if she takes any supplements, and if so, which ones. I would inquire as to her current stress level and what she does to reduce stress (yoga, long walks, etc.).

3. Create a comprehensive botanical protocol for Amy including dietary recommendations, lifestyle recommendations, and supplements. Submit the protocol is a format you would actually give to your client. Present the formulas using common name, botanical name, and amount of each herb in the formula. Make sure to address Amy's chief complaints and any underlying issues you consider relevant. Explain the rationale for all formulas you created for Amy.

## Sample example # 1:

Heart Healthy Formula:

Viburnum opulus(cramp bark)25mlAllium sativum(garlic)30mlLeonurus cardiaca(motherwort)25mlCratagus oxyacantha(hawthorn)20ml

Dose: Take 3ml twice a day

#### Rationale:

Cramp bark: Vasorelaxant, musculoskeletal relaxant (aids with insomnia) treats hypertension Garlic: Approved by the German Commission E for the prevention of dyslipidemias in aging and the treatment of hyperlipidemia. It is also used to treat mild hypertension and the prevention of atherosclerosis and CAD

Motherwort: treats hypertension (study by Bradley) and cardiac disorders. Approved by the German Commission E for heart palpitations occurring with anxiety - helpful in treating her anxiety and insomnia.

Hawthorn: Known as the "food for the heart" for the prevention and treatment of cardiovascular disease. Possesses cardiotonic, coronary vasodilatory, and hypotensive actions.

## For High Cholesterol:

Take 25 mg of standardized Guggal twice a day.

### SleepyTime Formula:

Humulus lupulus	(hops)	25ml
Passiflora incarnata	(passionflower)	25ml
Matricaria recutita	(chamomile)	25ml
Melissa officinalis	(lemon balm)	25ml

Dose: Take 2 to 4 ml for four doses starting two hours before bedtime

### Rationale:

Hops: Approved by the German Commission E for mood disturbances, restlessness, anxiety, and sleep disturbances.

Passionflower: Folk remedy for anxiety and used by the Eclectics to treat insomnia and managing nervous disorders that impact sleep. Approved by the German Commission E for the treatment of nervous disorders

Chamomile: mild sedative

Lemon balm: known as the "gladdening herb" used as a sedative for tenseness, restlessness and irritability. The German Commission E approves its use for nervous sleeping disorders.

### Lifestyle Modifications:

- 1. Reduce "bad fats" and increase "good fats" (include fats from nuts, seeds, fish, olive/canola/soybean/peanut oils).
- 2. Reduce refined carbohydrates and increase more whole-grains
- 3. Include beans, nuts, fish, poultry and eggs as protein sources

<sup>\*</sup>Do not combine Guggal or Heart Healthy Formula with conventional medications.

- 4. Eat plenty of fruits and vegetables
- 5. Drink alcohol in moderation (i.e. one glass of red wine a day)
- 6. Take a multi-vitamin
- 7. Stop smoking (if she smokes)
- 8. Follow the DASH diet or Mediterranean diet
- 9. Add Vitamins C, E and beta carotene to diet
- 10. Add niacin to elevate HDL cholesterol
- 11. Add 400 mg of magnesium
- 12. One hour of aerobic exercise 3 to 5 times a week or at least a brisk 30 min walk daily
- 13. Reduce stress: yoga, mindful meditation, deep breathing exercises
- 14. Practice sleep hygiene

### Sample example # 2:

#### Tincture:

Crataegus oxyacantha (hawthorn) - cardiotonic, antihypertensive, peripheral vasodilator - 30ml Cynara scolymus (globe artichoke) - bitter, liver stimulation, inhibit cholesterol synthesis -30 ml Leonurus cardiaca (motherwort) - relieve palpitations & anxiety, cardiotonic - 20 ml Ganoderma lucidum (reishi) - adaptogen, cardiotonic - 20 ml

Dosage: take 5 ml twice a day.

This tincture is meant to help support the heart and circulation, lower blood pressure and cholesterol levels, reduce anxiety, and gently stimulate the digestive system (to relieve nausea and help the liver and digestive systems clear wastes from the body).

Also, eat garlic 3-4 times per week, or take a garlic supplement daily. Look for ways to eat less salt and more fruit, vegetables, and whole grains. Increase your daily exercise and water consumption.

## Sample example # 3:

Daytime Tincture:

Actaea racemosa	(black cohosh)	30 ml
Crataegus oxyacantha	(hawthorn)	30 ml
Allium sativum	(garlic)	20 ml
Trigonella foenum-graecum	(fenugreek)	20 ml

Dose: 5 ml bid

## **Evening Tincture:**

Passiflora incarnata	(passionflower)	40 ml
Valeriana officinalis	(valerian)	30 ml
Melissa officinalis	(lemon balm)	30 ml

Dose: 5 ml an hour before bedtime

Diet: keep eating a healthy diet, with particular attention to reducing salt intake and refined carbohydrates, and increasing green leafy vegetables, good fats, and garlic in the diet. Eat fish twice weekly.

Supplements: start taking a daily multivitamin.

Lifestyle: keep exercising regularly. Consider meditation or journaling before bed for stress relief, as well as a hot bath with lavender EO (5-7 drops)

Rationale for daytime formula: Black cohosh is included for anxiolytic effects and as an anti-hypertensive. Hawthorn is included as an overall cardiotonic herb, to prevent CHF, and for its coronary vasodilatory and hypotensive actions. Garlic is included for its anticholesterolemic and antihypertensive effects and cardiotonic properties. Fenugreek is included as an anticholesterolemic.

Evening formula: passionflower and valerian are included for sedative and anxiolytic properties. Lemon balm is included as a nervine and anxiolytic.

4. In *Principles and Practice of Phytotherapy*, Mills and Bone present the following case: A female patient aged 48 sought assistance for palpitations, anxiety, angina, and mild hypertension. Her ECG did not reveal the presence of cardiac arrhythmia and her palpitations were less severe in recent times. On examination her blood pressure was 170/95 despite her use of labetalol (a beta-blocker) and felodipine (a calcium channel blocker). After treatment over a few months the following formula was settled upon:

Gingko biloba (standardiz	ed extract) 20 ml
Panax notoginsent	20 ml
Crataegus (folia)	25 ml
Corydalis ambigua	20 ml
Hypericum perforatum	25 ml
Passiflora incarnata	20 ml
Salvia militorrhiza	20 ml
	150 ml

They report that over the ensuing months her blood pressure stabilized at 135/85 and she had no problems with palpitations, anxiety or angina.

Please explain, in your own words, the rationale for the herbs in this formula.

Ginkgo biloba (ginkgo): Ginkgo was included because of its action with increasing blood flow to the brain and periphery. It is known to be an antioxidant, blood thinner, and to assist with atherosclerosis. It may assist with palpitations through its action of increasing blood flow. With increased blood flow and less resistance in the periphery, angina and hypertension would be reduced.

*Panax notoginseng* or *Panax psuedoginseng* was included because of its ability to vasodilate, thereby improving blood flow and reducing blood pressure and for assistance with angina.

Crataegus folia (hawthorne) was included because it is a heart tonic, can assist with lowering blood pressure, acts as a treatment for palpitations, and may act as a mild diuretic. It can decrease peripheral blood flow resistance and therefore assist in the hearts action/function.

Corydalis ambigua (corydalis) was included because of its antispasmodic effects, pain relieving actions (for angina) and overall relaxant effects, helpful for the anxiety she experiences. It is known as a circulatory stimulant and breaks up stagnant blood (relieves the pain of stagnation, increases circulation—perfect for angina conditions).

Hypericum perforatum (St. John's wort) was included for its calming, anti-anxiety, anti-depressive effects for this client who suffers from anxiety and possibly anxiety driven palpitations/angina.

Passiflora incarnata (passionflower) was included for its sedative, anti-anxiety and antispasmodic effects, all which would be helpful for this woman with anxiety, palpitations, angina and hypertension to soothe her nervous system and thereby affect her cardiovascular system.

*Salvia miltiorrhiza* (danshen) was included because of its powerful "moving" abilities. It assists with moving the circulation and moving stagnation. It is traditionally used in China for treatment of angina, and hyperlipidemia. In the case of this client, it would have been included to assist with vasodilatation, inhibiting clots and for its assistance with lowering blood pressure.

## 5. Obtain the following 2 tinctures: 1 oz. hawthorn tincture AND 1 oz. hawthorn berries

The goal of this assignment is for you to use these herbs along with any of the herbs that you choose to obtain and prepare a formula that is palatable and heart healthy. Taste the tinctures in various combinations and submit your recipe (not the actual tincture) for cardiovascular disease prevention or for a specific condition (i.e., hypertension.

## Sample example # 1:

Crataegus folia	(hawthorne)	40ml
Leonorus cardiaca	(motherwort)	30ml
Virburnum opulus	(cramp bark)	30ml

Take 1 tsp. twice daily for cardiovascular disease prevention in conjunction with a heart healthy diet.

## Sample example # 2:

Heart Healthy (Stress reduction) Tonic

Crataegus folia	(hawthorne)	30ml
Leonorus cardiaca	(motherwort)	20ml
Melissa officinalis	(lemon balm)	30ml
Allium sativum	(garlic)	20ml

## Blackstrap molasses 1 1/2 teaspoon

Take 2 - 5 ml once or twice daily in black cherry juice concentrate.

LESSON 50: Student to submit PDF to hmwcourse@avivaromm.com