Lesson 14:

1. List the 4 major patterns of menstrual dysfunction.

- Dysmenorrhea painful menstruation
- Amenorrhea absence of menses
- Oligomenorrhea infrequent menstrual cycles (35 or more days)
- Menometrorrhagia irregular, heavy bleeding
- Menorrhagia prolonged, excessive regular menstrual bleeding
- Polymenorrhea frequent menses, </= 21 days

2. What is the normal duration of menstrual bleeding, and the typical range of variation?

3-6 days is the normal duration of menstrual bleeding with a typical range between 2-12 days.

3. How does the duration and amount of bleeding change with age?

- Beginning in the later 30's: duration shortens (by ½ day per cycle) and the amount lessens.
- Between 2 and 8 years prior to menopause, the duration can lengthen, and amount of bleeding often becomes heavier as women approach menopause.

4. List 5 Factors that affect the endocrine system.

- Nutritional status
- Stress levels
- Body Weight
- Exercise patterns
- Environmental and workplace exposures (stress, noise chemicals)
- Illness
- Travel
- Sleep patterns
- Changes in amount of daily and nightly light exposures
- Attitude and belief about menstruation

- 5. Name 3 factors that have a protective effect against breast and other gynecologic cancers.
 - Later age at menarche
 - Earlier and more frequent pregnancies
 - Breastfeeding
- 6. Young women who exercise excessively may experience what common menstrual disorder?
 - Amenorrhea
- 7. Should fertilization occur, what will happen to the corpus luteum?
 - It keeps producing hormones until the placenta takes over completely by about 12 weeks, then it will begin to disintegrate.
- 8. List 3 important signs of an eating disorder.
 - psychological restraint issues around food
 - excessive exercise
 - low self-esteem/poor body self-image
- 9. If a client reports menstrual irregularity, low calorie intake, and excessive exercise, can her menstrual cycle be changed simply by improving the diet or reducing her amount of exercise rather than requiring both simultaneously? (Yes or No)

 Yes

Essays/Projects

Browse the internet, watch television, or look at magazines (articles, ads) and write a paragraph describing "hidden messages" there might be about menstruation—positive or negative. How might the media affect the perceptions of menstruation in an adolescent or young woman?

Hands-on/Clinical

Take 1.5 ml (approx. 1 tsp.) dose of chaste tree tincture). This is the most typical dose, form and time of dosing for chronic menstrual dysregulation. Describe the taste, and any effects you notice with the dose that may affect patient compliance (i.e. does it make you nauseated.) Try twice: one day on an empty stomach and another day with food. Does this affect the experience? Describe your experience in a few sentences.

Lesson 15:

Liana is a 24 year old woman with a BMI of 32, irregular menstrual cycles sometimes lasting longer than 45 days, and acne that plagues her most of the month but gets much worse before her periods eventually come. She is in law school, drinks 2 cups of coffee daily and eats a good deal of sugar. She skips meals and often feels very stressed. Based on what you have learned so far in this course, answer the following questions about this case.

- 1. Describe what you might think be the underlying cause of her acne.
 - High BMI→ contributes to excess circulating hormone load
 - Blood sugar imbalance; hyperinsulinemia→ possibly due to increased glucose levels at sebaceous gland; (hypersensitiveity to androgens)
 - Blood sugar imbalances cause a spike in cortisol; tax adrenals and intruding upon proper sex hormone production.
 - Liver congestion, and needing proper phospholipids (omega 3's).
 - Possible PCOS
 - Body wide Inflammation from high sugar foods.
 - Poor detoxification (excess estrogen, high stress, high sugar diet)→improve the
 hepatic function, improved skin health by reduction of excess circulating hormone
 load (i.e., excess estrogen, testosterone).
- 2. Using the herbs from the Key Botanicals in this lesson, create a formula that you think might help to address the underlying causes of Liana's acne. Include at least 5 herbs and the proportions of each in the formula.

Look for an understanding of at least 5 herbs with a solid rationale for inclusion in the formula that is consistent with the case presented in the lesson.

Common herbal actions to be included: Alteratives, Anti-inflammatories, Nervines, Anxiolytics and possibly topical applications

3. Give a 1-sentence explanation for the explanation for the inclusion of each her you listed above.

See above question.

4. What dietary or lifestyle suggestions might you give Liana to help reduce her symptoms?

- Reduce sugar and caffeine intake-add in suggestions for substitutions (herbal tea, adaptogenic herbs, ample water, etc.)
- Consider supplementing Vitamin A, B6, C and zinc
- Consider an elimination diet to check for unknown food intolerances
- Add good quality oils to diet (fish oils, hemp oil, ground flax, walnuts)
- Try to implement relaxation/meditation techniques or yoga to reduce stress
- Try to exercise 3x weekly
- Stabilize blood sugar: eating regular meals, foods with a lower glycemic index, protein at meals; eating whole grains, good fats, and lots of plant foods.
- Decrease Stress/Cortisol levels by including activities/lifestyle practices that increase
 Oxytocin (nourishing time with friends, adequate sleep, routine living, drinking a full
 glass of water before bed, getting involved with her community, cuddling
 partner/friend/animals).
- Sleep hygiene as needed (calming bedtime routine not studying! regular reasonable bedtimes, no computer/studying in bedroom, try studying in early am rather than at night, etc.)

Lesson 16:

Short Answer

- 1. Into what two categories do herbalists commonly subdivide dysmenorrhea?
 - 1. Congestive dysmenorrhea
 - 2. Spasmodic dysmenorrhea

2. List 5 possible differential diagnoses of dysmenorrhea.

- Endometriosis
- PID
- Adhesions
- pelvic congestion syndrome
- ovarian remnant syndrome
- Uterine fibroids

- Ovarian cysts
- Constipation
- IBS
- Adenomyosis

3. How would you differentiate primary from secondary dysmenorrhea clinically?

Primary dysmenorrhea is pain is the absence of organic pathology mostly affecting young women.

Secondary dysmenorrhea is associated with an underlying pathology, usually showing up in the third or fourth decades of life, with the pain often becoming progressively worse.

4. List 5 psychosocial symptoms or behaviors that may be associated as symptoms of CPP.

- Depression
- Anxiety
- inability to work
- painful intercourse
- sleep difficulties

5. How would you differentiate dysmenorrhea from CPP?

Dysmenorrhea is pain with menstruation, so by definition, cyclical and gynecological in origin. CPP is pelvic pain lasting more than 6 months. It is not necessarily cyclical, and can have gynecologic, gastrointestinal or urologic origins.

6. How is congestive dysmenorrhea characterized?

- scant/difficult blood flow
- dull achy pelvic pain
- feeling of pressure
- stagnant/congested feeling
- boggy pelvis

7. How is spasmodic dysmenorrhea characterized?

Spastic cramping pain

8. Name three herbs that are traditionally considered to have combined uterotonic and antispasmodic actions and thus are classically used for the treatment of dysmenorrhea.

Any 3 of the following:

- Black Cohosh
- Cramp bark and/or Black Haw
- Motherwort
- 9. List three common genitourinary conditions that can cause chronic pelvic pain.

Some examples:

- interstitial cystitis
- urethral syndrome
- overactive bladder
- 10. List three common bowel disorders that can cause chronic pelvic pain.

Some examples:

- IBS
- Diverticulosis
- Constipation
- 11. A 26 year-old woman comes to you describing uterine pain that occurs cyclically, on day 28 of a 28-day cycle, and persisting until Day 2 of her period. You determine that this is primary dysmenorrhea based on her history and prior exam with a gynecologist. Design a formula using no more than 5 herbs to be taken acutely during these days using herbs drawn from this lesson. List the action of each herb that is your rationale for including it in the formula.

Sample Example # 1

Cramp Bark, very reliable antispasmodic and tonic

Black Cohosh, is a spasmolytic, useful in dysmenorrhea, may have analgesic effect.

Motherwort, used for dysmenorrhea, also has a sedative effect.

Chamomile, is an antispasmodic, but also a nervine, used as a mild sedative.

Ginger, Warming, anti-inflammatory

Example #2

Black cohosh (Actaea racemosa) (Antispasmodic, anti-inflammatory)

Cramp Bark (Vibrunum prunifolium) (Antispasmodic, uterine tonic)

Motherwort (*Leonurus cardiaca*) (Antispasmodic, uterine tonic, sedative)

Peony (Paeonia lactiflora) (Analgesic, antispasmodic)

Corydalis (Corydalis ambigua) (Analgesic, antispasmodic)

Example # 3

15ml Cramp bark (Viburnum prunifolium)- uterine antispasmodic

15ml Black cohosh (Actea racemosa)- antispasmodic, analgesic and anti-inflammatory

15ml Corydalis (Corydalis ambigua) - analgesic

15ml Motherwort (*Leonorus cardiaca*) - sedative, antispasmodic (would substitute Ginger for this portion if this person was cold constitution or experienced nausea)

60ml - Take 3 droppers as needed for menstrual cramps. Can increase by 1 dropperful as needed.

12. Which herbs in Clarice's formulas are specifically considered antiviral and are included not only as nervines, but for their effects in treating herpes virus (HSV-1)?

Lemon Balm and St. John's Wort

13. Design a formula for Sylvia that is both venotonic and anti-spasmodic using no more than 5 herbs.

Sample examples:

Formula # 1

Blue Cohosh (Caulophyllum thalictroides) 25mL

Chamomile (*Matricaria recutita*) 25mL

Cramp Bark (*Viburnum spp.*) 20mL

Horse Chestnut (Aesculus hippocastanum) 15mL

Yarrow (Achillea millefolium) 15mL

100mL

Dose: 5 mL twice a day

Formula # 2

30 mL Blue cohosh (uterine tonic, vasoconstrictive)

30 mL Horse chestnut (vascular tonification)

20 mL Red Raspberry Leaf (vasotonic)

20 mL Cramp Bark (antispasmodic, venotonic)

Formula # 3

Horse chestnut 35ml

Chamomile 30ml

Black Haw 30ml

I would be cautious regarding which herbs I would use with Sylvia due to breast cancer history and current use of Bisphosphonates. I would want to make sure that any cancer diagnosis is ruled out before starting treatment.

- 14. A woman comes to you for an educational session regarding the treatment of chronic pelvic pain. You agree to work with her. She is 56 years old and has experienced CPP for four years. Answer the following:
 - a. What is the first step you will take when you begin to work with her?
 - First, I would assess when was the last time she saw her GYN doctor, primary doctor, or other physicians, and what were results of tests (i.e. preg test (unlikely!) pelvic US, pap testing, etc.)
 - A thorough health history
 - b. What are the five most important questions you might ask her?
 - When and how often does the pain occur, is it cyclical?
 - Do you have pain with bowel movements/urination?
 - What is the frequency, duration and heaviness of your menstrual cycle?
 Or do you have bleeding in between periods or since your periods have ceased?
 - Do you have a history of UTI, STD, vaginal discharge, gastrointestinal problems?
 - When was your last gynecological exam, pelvic exam, tests?

c. What might you do if she tells you she is postmenopausal and had occasional uterine bleeding accompanying the pelvic pain in the past 6 months?

Send her to the gynecologist for testing to rule out cancer or other serious underlying disorders first before making recommendations.

15. A woman, aged 32, comes to you complaining of dysmenorrhea that has bothered her since she was 18 years old. She has no known pelvic anomalies and has no history of underlying pathologies. She is terrified that she has a serious underlying disorder. She has not seen a gynecologist since she was 24, and has had both of her children at home. Before you begin to work with her, you consider sending her to a gynecologist for a basic work-up. She tells you that she is unwilling to go to a gynecologist due to a past history of sexual abuse by her uncle. She also tells you that she has had some recent episodes of foul smelling vaginal discharge and unusual vaginal bleeding occurring during her periods. Should you insist she see a gynecologist before beginning her care. Why/why not (not more than 150 words)?

From Aviva: "The question isn't really so much would you insist that she see a practitioner, but should you insist before YOU treat her....And to this I would say yes, you really should -- because she could have cervical cancer...can give her resources to caring, skilled providers with whom she might feel more comfortable."

Lesson 17:

Short Answers

1. A woman comes to you telling you that yesterday she tried to induce her period because it was a week overdue and she felt bloated and crampy. She is reporting feeling unwell since taking an herbal formula that she heard might be helpful. She is sweating, weak, and her heart is racing. What emmenagogic herb might she have taken?

Blue Cohosh

2. Define secondary amenorrhea.

Secondary amenorrhea occurs if a non-menopausal, previously menstruating woman does not menstruate for three cycle lengths or at least six months.

3. List at least 4 medical causes of amenorrhea.

- Autoimmune conditions
- PCOS
- Pituitary disorder/tumor
- Hypothalamic disorders
- 4. A woman has been experiencing secondary amenorrhea and wishes to get pregnant. You put her on an herbal formula that effectively returns her menses. One of the herbs is an oxytocic that contains a chemical compound that is an anti-fertility agent. What herb is this?

Cotton Root Bark

5. Why is it important to treat obesity in women with chronic amenorrhea?

Obesity can contribute to hormonal and menstrual dysregulation. Also, obesity with amenorrhea can = PCOS and this carries major health risks for women.

Case-Based Questions

1. Signs that Sarah is feeling depressed:

- Underweight and saying she forgets to eat.
- Bored with playgroups and other stay-at home moms, sounds unfulfilled & overwhelmed with her life, misses her previous work.
- Tired at night but poor sleep and fatigue, little energy for things she used to enjoy: workouts and running

2. Calculate Sarah's BMI

18.4

3. Is she underweight, normal, or overweight/obese?

She is considered underweight.

4. What clinical condition does Sarah have, as indicated by her CBC, that might contribute to her feeling fatigued, low-energy, and depressed?

Anemia

5. Does Sarah have clinical amenorrhea? Why or why not?

No, she has only missed two periods over the last six months.

6. Sarah is somewhat concerned she might have a pituitary tumor. What lab test result should reassure her that this is unlikely?

Prolactin

- 7. What herb(s) in Sarah's formula were specifically included to address her sense of fatigue and stress?
 - Ashwagandha
 - milky oats
 - motherwort
- 8. What oxytocic adaptogen that is used for treating fatigue might be substituted for the Dong Quai in Sarah's formula.

Schizandra

9. For what symptom that Sarah is experiencing might black cohosh be useful?

Menstrual cramps

10. What herb(s) in Sarah's formula were specifically indicated to address her irritability and emotional lability?

Milky oats, motherwort

11. See case about Amitra - a 26-year old woman who has missed her last 3 periods. Create a formula for Amitra using no more than 5 herbs. Explain the rationale for the herbs in the formula. Provide up to 2 supplements, 3 lifestyle changes, explaining your choices. Put all of this together and submit as a write-up that you might give to Amitra.

One sample write up:

- To improve mood, decrease stress, regulate your cycle, improve energy levels and prepare for pregnancy consider the following:
- -Eat a well-balanced diet with plenty of fresh vegetables and fruits at every meal
- -Include high quality protein for regulating your blood sugar (Grass fed beef, beans, nuts, eggs from free range chickens),
- -Incorporate omega 3 rich foods in your daily meals (salmon, walnut oil, chia seeds, ground flax) or begin taking a good quality fish oil supplement (Carlson, Nordic Naturals) one gel cap twice daily,
- -Begin taking a Vitamin D supplement. (Carlson drops) 4000IU daily.
- -Begin taking a daily probiotic supplement (Klaire Labs, Udo's Choice, Jarrow). At least 10billion organisms daily.
- -Begin eating folic acid rich foods (lentils, beans, asparagus, broccoli, collards).
- -Consider developing a daily meditation practice. A helpful app might be The Mindfulness App, or doing yoga once to three times a week. Join a local studio or try yogaglo.com or Sworkit app.
- -Start an exercise routine. Consider a 30 minute walk three times a week or use of the Sworkit app.
- -Decrease intake of sodas. You might substitute with Zevia or sparkling water to ease the transition.
- -Take the following tincture 5 ml (1 teaspoon) twice daily except during menstruation:

Dong quai (Angelica sinensis) 30ml reproductive tonic, anti-inflammatory

Ashwaghanda (Withiana somnifera) 20ml adaptogen, mild sedative, analgesic, anti-inflammatory

Black cohosh (Acetea racemosa) 20ml spasmolytic

Milky Oats (Avena sativa) 10ml nervine

Chamomile (Matricaria recutita) 10ml carminative, anti-inflammatory, nervine, mild sedative

This plan may take several months to regulate your cycles. Keep in touch as needed. Let's reschedule for 3 months from now.

Another sample tincture:

Ashwaganda 20 mL
Dong Quai 30 mL
Schisandra 20 mL
Chamomile 10 mL
Cramp bark/Black haw 20 mL

Total = 100 mL

Dose: 5 mL twice/day until the onset of menses.

Rationale for herbs:

Ashwaganda - adaptogen

Dong Quai- uterine stimulant and relaxant, blood and lymph circulator for reducing tissue congestion, analgesic and anti-inflammatory

Schisandra - adaptogen, oxytocic

Chamomile - anti-inflammatory for bloating and gas

Cramp bark/Black haw - uterine tonic

Supplement recommendations:

Fish oil supplement with 720 mg DHA, 1080 mg EPA (anti-inflammatory)

Magnesium (Product: "Natural Calm" powder - take as directed) for stress

Lifestyle recommendations:

- 1. Stop drinking diet soda! Reduce incrementally and switch out with herbal tea (like a Traditional Medicinal "Cup of Calm", a mint tea, one green tea/day. Or water.
- 2. Start exercising at least 3 x's a week (work up to 3-5 x's/week). Take a walk on your lunch break, or after work. What exercise have you enjoyed in the past? How can you incorporate this into your life now?
- 3. Get more sleep. Drink a calming tea before bed (like Traditional Medicinal Nighty Night or from their Relaxation Sampler), stop screen use at least 30 minutes before bedtime. Try to get at least 1 hour more sleep per night. Try to sleep later on weekends if possible.

Another sample tincture for internal use

Motherwort 30 mL
Ashwagandha 20 mL
Chaste tree 20 mL
St. John's wort 20 mL
Ginger 10 mL

Total: 100 mL

Dose: 5 mL twice daily

Supplements: 1000 mg/day calcium

Lifestyle: reduce caffeine intake; increase exercise, specifically with yoga or other exercises improving pelvic circulation; incorporate stress management techniques, such as journaling, walks in nature, baths with candles and essential oils, or other self-nourishing activities

Rationale: The motherwort is specifically emmenagogic and is an anti-spasmodic (for cramps), uterotonic, bitter nervine specifically for tension and irritability. Ashwagandha is an adaptogen and will help regulate her HPA axis, improving stress, sleep and depression. Chaste tree is included to regulate her hormones. St. John's wort is a relaxing nervine and will help with depression. The ginger is anti-spasmodic and increases pelvic circulation and relaxation. It is also a digestive tonic (for her gas and bloating) and will improve the taste of the formula. The calcium supplement is to improve cramps she experiences when she does menstruate and also to support bone loss she may be experiencing from excessive caffeine consumption and not menstruating regularly. For lifestyle changes, reduced caffeine intake will help her sleep better and have better energy levels overall. Exercise will help reduce stress and will also help her sleep better, as well as support better health in general. Exercise to improve pelvic circulation may help bring on the menses. Finding effective stress management is important for regulating her HPA axis as well as better sleep and health and reduced stress.

Lesson 18:

- 1. List 3 medical conditions that might form your top differential diagnosis for Lydia prior to having her lab work back.
 - Anemia
 - Pituitary tumor
 - Thyroid disorder

- 2. After 2 months Lydia calls you and reports that she has no improvement in her symptoms. What 3 steps might you take? (Describe in no more than 3 sentences, one for each step you'll take.)
 - ask if any life changes (family, stress)
 - Is she taking the formula and with what frequency?
 - Increase formula #2, take three times/daily for one more month and review lifestyle and nutrition--anywhere to improve?

3.	After 2 weeks on the formula, Lydia calls and tells you that she has been taking the		
	tincture religiously and her irritability is better, but she is more depressed than		
	she'd ever felt prior to taking the formula is the herb in the formula most		
	likely exacerbating depression.		
	Chaste berry		
4.	Lydia comes to you after 2 weeks and says she has stopped drinking coffee, but now		
	she feel fatigued all of the time. You realize an herb in the category		
	would be most appropriate for her.		
	Adaptogen		

5. List 3 herbs in the category that is the answer to the previous question that might you find in your herb room and consider using to improve Lydia's energy without stimulant effects.

Any of the legitimate adaptogens. For example: Ashwagandha, Rhodiola, Reishi

Lesson 19:

Hands on/Clinical

1. Using the case in *Botanical Medicine for Women's Health*, list all the lifestyle factors that might be contributing to this woman's cyclic mastalgia and all of the protective factors in her lifestyle.

Contributors

- Stress
- regular red meat consumption
- caffeinated beverages

Protective factors

- regular exercise
- increased veggies & fruits
- cold water fish
- plenty of water
- Never smokes
- Only drinks on occasion
- Not using hormonal contraceptives
- Yoga and sauna time for stress relief
- Healthy weight

2. The case presented in this lesson states "You educate Jada about the following herbs which you assemble into this tincture formula."

Chaste berry (Vitex agnus-castus)

Motherwort (Leonorus cardiaca)

Dandelion root (Taraxacum officinale)

Calendula (Calendula officinalis)

Ashwagandha (Withania somnifera)

Briefly explain what you tell her about the role of each herb in the formula and how it is relevant to her condition.

Sample example: (Assess for thoroughness-explanation of each herbs actions and how relevant to client!)

Vitex - This is an amazing female hormone tonic. Stimulating the pituitary gland to regulate estrogen and progesterone. Will encourage regularity to the cycle by nourishing the endocrine system to find its own balance.

Leonorus cardiaca - The plant signature for motherwort makes it a 'helping hand', especially useful for busy mothers. It helps to soothe anxiety and stress as a nervine by soothing smooth muscle tension. It is exceptionally nourishing.

Taraxacum - Dandelion is classically used to support the liver. A main task of the liver is to process and clear out hormones. Supporting this job will help balance the hormones that are leading to the pain in the breasts.

Calendula - a mild digestive bitter, stimulating the liver and improving digestion. Also has mild estrogenic effects, again supporting a healthy and regular cycle.

Withania - Ashwagangha is considered an exceptional adaptogen, especially for women. Calming stress and anxiety without numbing the mind.

These herbs will work together to support your body and hormones to function optimally. Bringing balance to the cycle and hormone levels in the body thus reducing the cyclic pain. They will also nourish your body overall. Helping you manage the daily stress that comes with being a busy and capable business woman and mother.

Women's Spirit Medicine (optional)

Reflective.

Lesson 20:

Cases, Formulas and Reflections:

- 1. Carlie describes heightened emotional sensitivity from the medications she was on. PCOS is also associated with emotional disturbances, for example, irritability and depression. Based on what you've learned in this in previous lessons, name three herbs that you possibly add to her formula, either alone or in combination, that might address irritability and depression. Give both the common and botanical names for each herb.
 - Ashwaghanda (Withania somnifera)
 - Rhodiola (*Rhodiola rosea*)
 - Blue vervain (Verbena officinalis)
 - Lavender (Lavendula officinalis)
 - St. John's wort (*Hypericum perforatum*)
 - Motherwort (Leonurus caridaca)
- 2. For how long will you tell Carlie to stay on the formula and when might you want to see her again for a follow-up appointment assuming she has no side-effects from the formula?

 Minimum of 3 months, probably 6-12. See her in 3 months to check formula and if losing weight.

- 3. What key signs of PCOS might be noted on physical exam?
 - Hirsutism
 - Acne
 - Alopecia
 - Truncal obesity
 - sometimes also acanthosis
- 4. What are the key physical signs of insulin resistance?
 - Central obesity
 - Acanthosis
- 5. What herb might be considered for reducing elevated androgens while modulating estrogens and prolactin?

White Peony

6. In additional to the PCOS formula recommended for Carlie in the case presented in this lesson, what additional herbs might be recommended for acne and depression? Create two formulas of at least three herbs each for these conditions, including form used (i.e. tea, tinctures, capsules, topical application), dose, and duration of use. List any contraindications you might think of considering the medications she is currently taking.

Sample example #1

Oregon Grape Root (Mahonia aquife	olium) 30 mL
Echinacea (Echinacea spp.)	20 mL
Dandelion (Taraxacum officinale)	20 mL
Ashwagandha (Withania somnifera)	20 mL
Licorice (Glycyrrhiza glabra)	10 mL
	Total 100mL

Dose: 3 mL Twice daily. For at least 3 months.

Topical facial wash Tea Tree and Witch Hazel done twice daily. If irritation occurs switch to Calendula wash or steams.

Depression Tincture:

St John's Wort (*Hypericum perforatum*) 30 mL

Motherwort (*Leonurus cardiaca*) 20 mL

Eleuthero (*Eleutheroccus sentticosus*) 30 mL

Lavender (*Lavandula officinalis*) 20 mL

Total 100 mL

Dose: 5 mL twice daily for at least 3-6 months

Supplements: Evening Primrose Oil (Oenothera biennis) 500 mg twice daily

Sample Example # 2:

Depression Tincture:

Rhodiola (*Rhodiola rosea*) 20ml Ashwaghanda (*Withiana somnifera*) 40ml Blue Vervain (*Verbena officinalis*) 40ml

Take 5 ml twice daily, stop taking if you become pregnant.

Acne cream:

Calendula (Calendula officinalis)

Oregon Grape root (Berberis/Mahonia aquifolium)

Chamomile (*Matricaria recutita*)

Infused in Sunflower oil base

combined with water and a small amount of beeswax and blended to make cream.

Use after washing face twice daily. Stop use and inform me if rash or irritation develops.

Calendula contraindicated for those with latex allergy.

Sample Example # 3:

Depression Tincture"

St. John's Wort 44ml

Lavender 12ml

Ashwagandha 44ml

Take 5ml tid for 1 month. Follow-up appointment at this point to assess for improvement in mood and determine if tincture is continued or if any herbs are changed.

Thyroid function will have to be monitored as Ashwagandha can have a thyroid stimulating effect.

Acne: Topical application:

Berberis aquifolium 1 part

Calendula officinalis 1 part

Hamamelis virginiana 1 part

Steep 1 tbsp of dried herb mixture in 1 cup of boiling water, steep covered for 15 minutes. Cool the infusion and use as rinse over affected area daily.

7. Please provide a summary, in your own words, of the key approaches you would take to helping a woman with PCOS achieve a regular menstrual cycle.

- Guidance and encouragement on sustained weight loss is one the first and foremost key approaches.
- Ensure that she was exercising regularly, eating a whole foods diet rich in complex carbohydrates, protein, healthy fats.
- Address the sources of stress in her life and help her find strategies to lower her stress
 levels. Yoga, not only as a form of physical activity but for its effects at lowering
 cortisol levels, would be suggested, as would other forms of stress relief such as
 meditation, journaling, or simply scheduling time for herself to do things that bring her
 pleasure.
- In addition to a botanical tincture to further support the HPA and HPO axes, modulate
 hormonal levels, and aid with glucose metabolism, I would suggest a fish oil in order to
 support her mood and address any potential dyslipidemia.

- 8. Please summarize, in your own words, why PCOS is a potentially serious health condition for women that must be addressed at the root causes.
 - Its root causes of insulin resistance, obesity and high stress levels greatly increase the risk of cardiovascular disease, diabetes, estrogen related cancers and infertility.

Lesson 21:

Cases, Formulas and Reflections:

1. Endometriosis typically occurs between what ages?

Most commonly 30-40 years old, often even diagnosed in the 20's.

- 2. Name two preventative factors against endometriosis.
 - Full-term pregnancies
 - Breastfeeding
 - Avoiding caffeine, alcohol
 - Regular exercise
- 3. Name three possible risk factors for endometriosis.
 - Early menarche (before age 12)
 - Cycles < 26 days (= higher frequency)
 - Heavy bleeds >7 days
 - IUD's, D & C's
 - Fewer than 2 pregnancies
 - Family history
 - High stress, especially linked to relationships or sexuality
 - High fat intake, especially heated fats, fried foods
- 4. In Sara's case, which of her symptoms is of the most concern to you?

Depression

5. What pelvic exam finding in Sara's case is highly suggestive of endometriosis and is a cause of her pelvic pain?

Retroflexed, fixed uterus

6. What is the cause of this finding?

Pelvic adhesions

7. Oxidative stress pairs what two factors that might contribute to the etiology of endometriosis?

Immunologic and inflammatory

8. What herb might be used to improve the taste of an herbal tincture or tea formula, while imparting anti-inflammatory effects?

Ginger or licorice are acceptable answers

- 9. What is the possible role of evening primrose oil in the treatment of endometriosis?

 Anti-inflammatory effects
- 10. What is the role of immune enhancing herbs in the treatment of endometriosis? Name 2 that you might consider using in a formula.
 - Immune dysregulation may be an underlying factor in the development and progression of endometriosis.
 - Possible herbs would be Astragalus, Echinacea

Hands On/Clinical:

- 1. In a very brief paragraph (100 words or less) and using your own language, describe endometriosis to Sara.
 - Endometriosis is when endometrial tissue, which is found in the uterus, forms in other sites of the body.
 - Endometrial tissue reacts to hormonal changes during your cycle, so they react during menstruation- just like in the uterus.
 - It's common for women to experience pain in the pelvic region, ovaries, lower back, and bowels. Pain is a result of the bleeding and inflammation of the endometrial tissue.
 - Over time, the inflammation can cause scarring and adhesions, which can lead to infertility.
 - Many think of endometriosis as an endocrine condition because it affects the menstrual cycle. But it's really an immune condition.

- 2. List and briefly explain 3 general goals for natural endometriosis treatment. What herbal actions would you want in a formula to meet these goals?
 - Enhance hormonal regulation/balance: Aperients, Cholagogues, Hepatics, and Hormone regulators.
 - Relieve pain is a primary goal: Analgesics, sedatives, anti-inflammatories, antispasmodics, and nervines.
 - Support immune function: immune stimulants, adaptogens.

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3. Based on what you have learned in this lesson, and using the resources available to you in this course, create a formula that you think will best address Sara's needs and briefly explain why you have included the herbs you choose.

Sample example # 1:

Hormone and immune modulation formula - 100ml

20ml Dong quai (Angelica sinensis) - pain relief, immune modulation (anti-inflammatory), antioxidant, blood mover (TCM)

20ml Peony (Paeonia lactiflora) - anti-inflammatory, hormone modulation

20ml Licorice (Glycyrrhiza glabra) - anti-inflammatory, immune enhancement

15ml Vitex (*Vitex agnus-castus*) - hormone modulator (progesterone support)

15ml Schisandra chinensis - hepatic (estrogen clearance)

5ml St. John's wort (Hypericum perforatum) - hepatic (estrogen clearance), nervine

5ml Calendula off. - Lymphatic

Dose: Take 3ml twice daily (morning and midday)

Pain formula - 100ml

60ml California poppy (Eschezolia californica) - analgesic, nervine

20ml Piscidia piscipula - anodyne/analgesic

17ml Ginger (Zingiber off.) - anti-inflammatory, antispasmodic

3ml Anemona pulsatilla - anodyne/analgesic

Dose: Take 2ml as needed for pain relief

Sample example # 2:

Cramp bark (antispasmodic)	25ml
Ginger (anti-inflammatory, antispasmodic)	10ml
Wild yam (spasmolytic, anti-inflammatory)	20ml
Chasteberry (hormonal regulator)	25ml
Dandelion root (alterative)	<u>20ml</u>

Total 100ml

Cramp bark is excellent for dysmenorrhea and pelvic pain and cramping, ginger also provides relief from cramping and is anti-inflammatory, wild yam will specifically address the c/o dyschezia, chasteberry will assist in hormonal regulation and may improve her chance of getting pregnant, and dandelion is to support elimination of excess estrogen.

Sample example # 3:

Disoscorea villosa (wild yam)	20mL
Corydalis ambigua (corydalis)	20mL
Matricaria recutita (chamomile)	15mL
Angelica sinensis (dong quai)	15mL
Withania somnifera (ashwagandha)	15mL
Verbena officinalis (blue vervain)	15mL

Wild yam: for abdominal and pelvic cramping (antispasmodic)

Corydalis: for dysmenorrhea, musculoskeletal pains such as Sara's back pain, pain relief (analgesic, antispasmodic)

Chamomile: pelvic pain relief, pain relief, intestinal and bowel discomfort (anti-inflammatory, spasmolytic)

Dong quai: anti-inflammatory, antispasmodic, pain relief (analgesic)

Ashwagandha: immunostimulating, stress relief (adaptogen)

Blue vervain: hormonal metabolism and elimination, stimulate liver function (hormonal

regulation)

Lesson 22:

Short Answer

1. What five factors can you tell your client that lead to overgrowth of pathogenic organisms in the vagina?

Answers may include: antibiotics, contraceptives, intercourse, receptive oral sex, and hormones

2. You client has a non-bacterial vulvovaginitis. Name three factors that can lead to allergic vulvovaginitis.

Answers may include: latex condoms, topical antifungal agents, preservatives, lubricants

3. What three behaviors might you tell your client can increase the risk of contracting T. vaginalis?

Answers include: IUD use, smoking, multiple sexual partners, race, economic status, education, drug use, age

4. Name two common non-bacterial home remedies that can be used as topical preparations for the treatment of vaginal candidiasis.

yogurt, boric acid

5. Name three categories of herbs used in the topical treatment of vulvovaginitis.

Answers include: antimicrobial, anti-inflammatory, vulnerary, demulcent, emollient, astringent

6. What is the most likely diagnosis of the woman in Case 1?

Candidiasis

7. What is most likely diagnosis of the woman in Case 2?

BV

8. What is the most likely diagnosis of the woman in Case 3?

HIV

9. Which herb in this formula is used primarily for its antimicrobial effects? Calendula, thyme, lavender and comfrey?

Thyme

10. Your client is terribly irritated upon and just after urination due to vulvovaginitis. What herb might she include in a peri-wash primarily as an astringent antimicrobial?

Uva ursi

11. Name three risks of patients using herbs to treat HIV infections?

Answers may include:

- risks of using unsafe therapies
- foregoing use of conventional treatment in favor of therapies that may be ineffective
- delaying necessary medical therapies for too long
- interactions that may interfere with the efficacy or safety of conventional therapies
- unnecessary cost to the patient
- 12. Name three important topical astringent herbs that can be used to tone and heal damaged, irritated vaginal mucosa.

Answers may include: uva ursi, witch hazel, plantain, and white oak

Hands on/Clinical:

1. Using the instructions for making a suppository provided earlier in the course (Lesson 9), and your herbal supplies for this lesson, make a batch of herbal suppositories. Did you have any problems making the suppositories?

Reflective

- 2. Selecting either Case 1 or Case 2 earlier in the lesson, create an herbal formula and treatment plan for that client and briefly explain the rationale for each herbs/supplements you include. Include at least four herbs in your preparation. Make sure to specify the type of preparation you are using, the proportion of each herb in the formula and the dose.
 - Look for understanding of the herbs used in the formulae and for inclusion of all of the elements in the question (type of preparation i.e. tea, tincture, suppository; number of herbs used, dose, etc.)

Lesson 23:

1. Name three risk factors for developing a UTI.

Answers may include:

- sexual activity
- maternal history of UTI/genetic predisposition
- use of oral contraceptives
- use of diaphragms and spermicides
- sexually transmitted diseases and vaginitis
- dehydration
- antibiotic use

2. List the symptoms of cystitis.

Sudden onset, dysuria (urinary urgency, frequency, burning with urination), suprapubic discomfort

3. List the symptoms of pyelonephritis.

Gradual onset typical, Fever, chills, nausea, costovertebral angle tenderness/CVAT (flank pain), may or may not have dysuria

4. List three practical things a woman can do to reduce her risk of developing a UTI?

Answers may include:

• void at the first urge to urinate

- void after intercourse
- drink adequate fluids
- avoid spermicides
- wipe the anogenital region from front to back after a bowel movement
- wear non-absorbent underpants or pantyhose
- drink cranberry juice regularly
- 5. List three herbs you might put in a peri-rinse for treating urethritis.

Answers might include: Thyme, lavender, calendula, yarrow, uva ursi, lavender (other antimicrobial and vulnerary herbs also might be acceptable answers)

- 6. Your client comes to you complaining of a UTI symptoms that have persisted for the past two days. You start her on an herbal protocol for cystitis, and tell her that an uncomplicated lower UTI can persist for as long as how many days?

 Six
- 7. Liz, in this lesson's case, says that she does not want to use antibiotics to treat her UTI because it frequently causes a yeast infection. Is this a realistic concern on Liz's part?

 Yes, antibiotics can cause vaginal yeast infections
- 8. You go into your apothecary to formulate a tea for Liz containing uva ursi leaves and marshmallow root only to discover that you have run out of both! What two herbs might you consider instead that, combined, have similar activity?

Any combination of a urinary antiseptic and demulcent (i.e., yarrow and plantain; thyme and goldenrod)

9. Your client asks you if she can take cranberry juice cocktail or other sweetened cranberry juice to treat her UTI. What do you tell her?

These are typically highly sweetened juice products and the sugar can aggravate a UTI. Unsweetened juice is best.

10. Liz (case in this lesson) asks you if her husband also needs to be treated to prevent UIT recurrence. What do you tell her?

If her UTI is caused by irritation from a communicable vaginal infection, then treating him might help; otherwise, no he does not need to be treated for her UTI to clear up.

Hands On/Clinical:

1. Prepare uva ursi and marshmallow as a cold infusion and as a hot infusion using ½ ounce total of the herbs for each batch per pint of either cold or boiling water. After steeping each for two hours, taste and write a few sentences comparing the difference in taste and texture of the preparations.

Reflective

2. Design a formula for Liz (case in this lesson) containing at least three herbs. Briefly explain why you included each of these herbs, the dose, form used (i.e., tea, infusion, tincture, topical) and give instructions on duration for which she should take the preparation. You may use additional resources, but try to be original in your formulation and explanation.

Sample example #1:

Yarrow 2 parts Uva ursi 2 parts Wild yam 1 part

Steep 1 tbsp of dried herbs in 1 cup of hot water. Steep covered for 15 minutes. Strain and drink. Drink 1 cup every 4 hours during the first 2 days.

Ulmus rubra powder: take 1 tbsp of powder and mix with 4oz of water. To be taken two times daily, in between teas (1-2 hours apart) for the first 2 days.

If symptoms persist and do not improve in 24 hours please contact me. If symptoms improve, continue above protocol, decreasing the above prescription to 1/2 cup every 4 hours and 1/2 tbs of *ulmus rubra* bid for another 2 days. On day 5, if symptoms continue to improve decrease dosage by 1/2 again (tea and ulmus rubra powder) until the end of day 7. If symptoms persist after day 7 continue and contact the office.

Yarrow was selected for its antimicrobial, antispasmodic, astringent, and anti-inflammatory properties.

Uva ursi was selected for its antimicrobial and anti-inflammatory properties, working synergistically with yarrow.

Wild yam was selected for its analgesic and spasmolytic actions.

Ulmus was selected for its demulcent and diuretic properties. It is spaced away from the herbal tea in order to decrease any potential interference with absorption and to further increase Liz's water intake.

Sample example # 2:

- *Prepare the following as a hot (steeped for 1 hour) or cold (steeped for 4 hours) infusion
 - 6gm Uva ursi antiseptic, diuretic specific for urinary tract
 - 6gm marshmallow root highly mucilaginous anti-inflammatory demulcent
 - 2gm goldenrod anti-inflammatory, diuretic and spasmolytic
 - 2gm wild yam antispasmodic
- *Drink 1 cup every 4 hours for 2 days
- *If symptoms improve, continue taking 1/2 cup every 4 hours for days 3-4
- *Can eliminate wild yam when cramping resolves
- *If symptoms improve, continue taking 1/4 cup every 4 hours for days 5-7
- *Days 8-14, continue taking 1/4 cup infusion of just the Marshmallow root and Goldenrod every 4hr
- **If at any point symptoms worsen or you develop fever, chills or back pain you should seek medical care.
- **If symptoms have not improved after 5-7 days, you should seek medical care

Sample example # 3:

Lower UTI Infusion

*Assuming that the patient is not pregnant

This infusion is to be taken hot or cold

Steep and strain the following herbs in 500 mL of water:

6 g uva ursi leaf

6 g marshmallow root

2 goldenrod

Use this infusion as part of the protocol described below:

In addition to the infusion, purchase or prepare an Echinacea tincture.

Continue the use of the cranberry extract tablets and take as directed below:

Days 1 and 2

Take 1 tablet of (300-400 mg) cranberry extract tablets twice daily

Drink ½ cup of prepared infusion (as written above) 4 times per day

Take 500 mg Vitamin C every 4 hours

Drink 8 oz. of water every 2 hours

Take 3 mL of Echinacea tincture every 4 hours

Reduce intake of sugar

Avoid sexual activity during treatment

Days 3 and 4

If symptoms have lessened, cut all doses in half.

If symptoms have not lessened, continue as written above and add 1 "OO" capsule of baking soda to the infusion that contains uva ursi.

Days 5-7

If seeing improvements, go to ¼ of the original dosing of the infusion, cranberry extract and Echinacea tincture. Keep Vitamin C and water intake at ½ of the original dosing.

If symptoms are not improving, please seek medical care.

Days 8-14

Maintain the same dosing as was prescribed during days 5-7, but cease use of the uva ursi infusion.

In the case of suspected reoccurrence, repeat the day 5-7 protocol for several days.

For prevention sake, days 3-7 can be carried out minus the uva ursi infusion occasionally (i.e. 1 week per month.

The herbs in this protocol were selected for the following reasons:

uva ursi leaf – this herb is primarily used for its antiseptic properties.

marshmallow root – this herb is used as a demulcent to compliment the uva ursi.

goldenrod – this herb was selected as an anti-inflammatory and as a diuretic.

The echinacea tincture was chosen to support the immune system.

Lesson 24:

Short Answer:

1. What is the role of yarrow in "Great Flood Formula?"

Hemostatic

- 2. Casey asks you how long she should wait before expecting a reduction in fibroid size once she starts her herbal protocol. What do you tell her?
 - 3-6 months from the onset of treatment
- 3. Some herbalists report that in order to eliminate fibroids entirely, they need to be smaller than about what size at the start of treatment?

A 12-week pregnancy

4. What is the role of blue cohosh in the treatment of uterine fibroids?

Uterotonic

5. What structures found in the *Brassicacea* family of vegetables induce liver enzymes that reduce overall estrogen load?

Indoles

Hands On/Clinical:

- 1. A 34 year old woman comes to your office for treatment of uterine fibroids that her gynecologist found on recent pelvic exam. She has not been having symptoms and wants to try to conceive in the next few months. What do you tell her?
 - No treatment is required and that unless the fibroids are extremely large (in which case she'd likely have symptoms) or obstructing her uterus, cervix, or vagina, she should expect no increased risk of pregnancy problems, though fertility problems or miscarriage may be slightly more frequent.
- 2. Given Casey's presenting symptoms, create a formula containing 5 herbs that you would start her on; briefly explain your rationale for the herbs in this formula. Specify preparation form and dose.

Answer should include at least one anti-hemorrhagic herb, a uterine-tonic, a uterine antispasmodic, a cholagogue or hepatic, and a warming/pelvic circulatory stimulant herb.

Sample example # 1:

Goals: regulate menstrual cycles, reduce bleeding, eliminate bloating, heaviness, and constipation, reduce size of fibroids and overall increase her comfort throughout the menstrual cycle.

Tincture:

Vitex agnus castus (chaste berry)	25ml
Alchemilla vulgaris (lady's mantle)	25ml
Paeonia albiflora (white peony)	15ml
Rubus idaeus (red raspberry)	15ml
Zingiber off. (ginger root)	10ml

3ml 3x day

Work on a nutritional and exercise program including: daily walks or yoga for 30 minutes, reducing sugars, eggs, red meat and processed foods, increasing organic fruits and vegetables and hormone free poultry.

We would check in over the first two months for signs of improvement.

Sample example # 2:

Yarrow 20ml astringent due to irregular bleeding

Black Cohosh 20ml due to pelvic heaviness and hormone modulating capability

Ginger 20 ml for carmative action as well as spasmolytic and increase pelvic circulation, decrease congestion.

Dandelion 20ml for hepatic detoxifcation support, improved elimination and if landscape gardener, she may be exposed to chemicals so this may decrease the load on the liver as well. Nettle leaf to combat loss of iron 20ml

2.5 mls twice a day

Sample example # 3:

Tincture:

Chelidonium majus 30ml

Rumex crispus 60ml

Cinnamomum cassia 10ml

Take 3ml bid for 3 cycles, with a follow-up at 1 month.

Vitex agnus-castus 5ml taken daily in the morning, diluted in 1/4 cup of water.

Achillea millefolium tea to be taken during periods of heavy bleeding: steep 1 tbsp of herb in 500ml of water for 15 minutes covered. Drink 1 cup every hour for up to 4 hours until the bleeding subsides. If soaking more than 2 maxi-pads in 30 minutes seek medical care immediately.

Vitex was selected for its hormone modulatory role.

Achillea was selected for its antihemorrhagic action, given as a tea as it is more effective in this form for heavy bleeding and being given separately can be taken during acute periods of heavy bleeding.

Chelidonium is an excellent cholagogue, selected in order to help improve estrogen regulation and elimination.

Rumex crispus was selected for its laxative effect, further supporting estrogen elimination and to help address her occasional constipation.

Cinnamon was selected for its uterine circulatory and astringent actions. In addition it will add a pleasant taste to the tincture.

3. Along with have periods, your client is experiencing uterine cramping, digestive system gas and bloating, and nausea. If you could only include 3 herbs in a tincture for her to address all of the symptoms, what would they be and why?

Examples:

- Ginger root: nausea, bloating, gas, cramping, uterine antispasmodic
- Cramp Bark: pain relief for cramping
- Yarrow: reduce heavy bleeding, regulate flow of blood
- Chaste tree: hormonal regulation, tonic
- Hops: nervine to calm

Lesson 25:

1. Selecting from two of the cases presented in the beginning of the lesson, discuss how you would respond to those women's request for abortion help, what you would say and what kind of information you would provide, and whether your emotional response to their request for abortion help was similar or different. Your answer should be at least 200 words in length.

Answers should include the following:

- How you would respond to those women's request for abortion help
- What you would say/ what kind of information you would provide
- Discussion of emotional response to request and whether this was similar or different for the different cases
- 2. Re-read your answer to the previous question and then write one additional paragraph reflecting on whether and how your personal judgments about abortion affected your responsive as an educator or practitioner, and how you might modify your response to provide supportive and non-judgmental care.