Complementary Interventions in Pregnancy

Natural Healing in Pregnancy

First of all….

- **First and for most – Over time, one cannot outpace the negative results of poor diet, exposure to toxins, stress and lifestyle choices, which can contribute to common complaints of pregnancy. Whenever possible, also pursue root causes.**
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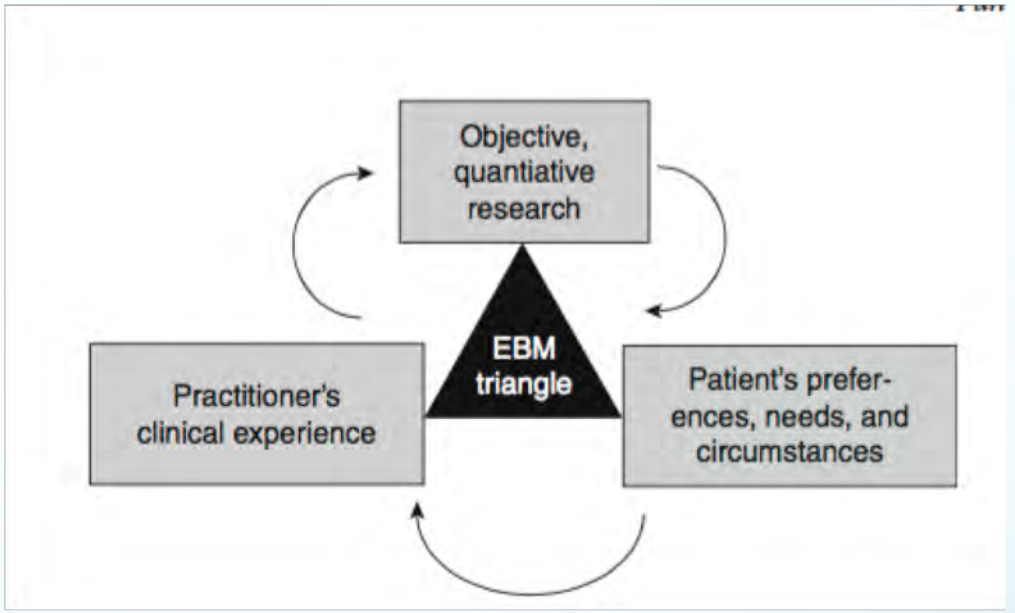
- I have no conflicts of interest to report. Any specific products mentioned are those mentioned from research studies, may be commonly used, or my personal opinion 2/2 to my thoughts concerning fewer added inert chemicals, and history and or reputation in the market place and usage by respected colleagues.

Objectives

- Understand some of the motivations among clients for the use of complementary therapies
- Understand classes of herbs that are contraindicated in pregnancy.
- Understand risks and benefits of discussed complementary substances used in common issues of pregnancy
- Have and awareness of some common doses for alternative substances in pregnancy
- Find evidence based sources for herbal safety information

Why women seek complementary therapies

- Globally, it is estimated that 70% of all health care is provided by traditional, NONconventional medicine.
- 50-80% of all Americans have used CAM therapies
- Aveerage USA CAM users are women 30-59, well educated with incomes>$50000/year
- Desiring prevention of chronic diseases via education, good nutrition, and safe nutritional supplements (also concerned with the safety of many pharmaceuticals)



Potential Pregnancy Comparisons
(the black and white versions)

Medical Model

- Woman is encouraged to be dependent and is treated as potentially ill and in a abnormal state
- Mother and baby are separate patients whose medical and emotional needs can conflict; the mother's emotional needs may jeopardize the baby's health
- The woman's body is a mechanical organism that needs fixing
- Power and authority are handed over to the institution.

Holistic model

- The goal is to assist the woman toward self-care as a healthy person in a state of normalcy
- The mother and baby are a unit whose medical and emotional needs are complementary; what meets the needs of one meets the needs of both
- The woman's body is a well-functioning home for herself and her baby
- The woman maintains power and authority over herself.

Potential Pregnancy Comparisons

(the black and white versions)

Medical Model

- Responsibility is assumed by the provider; needs and workings are best known by him/her.
- The emphasis is on pregnancy and birth as times of stress and danger.
- Childbirth is seen as an occasion for the provision of medical services
- The provider manages the care of the woman
- Childbirth is seen as a surgical procedure performed on the pelvic region of a woman, involving the removal of a fetus and a placenta

Holistic model

- Responsibility is in the hands of the woman, shared by the provider. Needs are best known by the woman herself.
- The emphasis is on pregnancy and birth as times of physical/psychological/emotional growth for the mother and fetus
- Childbirth is seen as an activity in which the healthy woman engages
- The provider guides and educates the women during her experience.
- Childbirth is seen as an event in the lives of the woman and her family. The woman's active birth-giving is enhanced by education, support, and skilled care

Medical and herbal substances classification

- Herbs are classified differently than medications. Organizations such as the American Herbal Pharmacopoea (AHP or may be designated AHPA), the German Commission E, and the European Scientific Cooperative on Phytotherapy (ESCOP), and the World Health Organization (WHO) are respected organizations that evaluate herbal safety and produce monographs describing herbal safety.

- Classifications of herbs are based on the use of the herb itself being consumed (simple chart front of APH book). Use of these classifications still requires some knowledge, as to appropriate use in pregnancy and/or lactation, childhood, or specific disease processes)

- Keep in mind that, typically herbal medicines are made from plant parts, the active chemicals are not extracted and isolated for their specific activity. It often takes time and/or repetitive intake to see results. They are often combined together in extracts, tinctures, or teas for synergistic properties – example: lavender + milky oats + lemon balm for stress and relaxation before bed

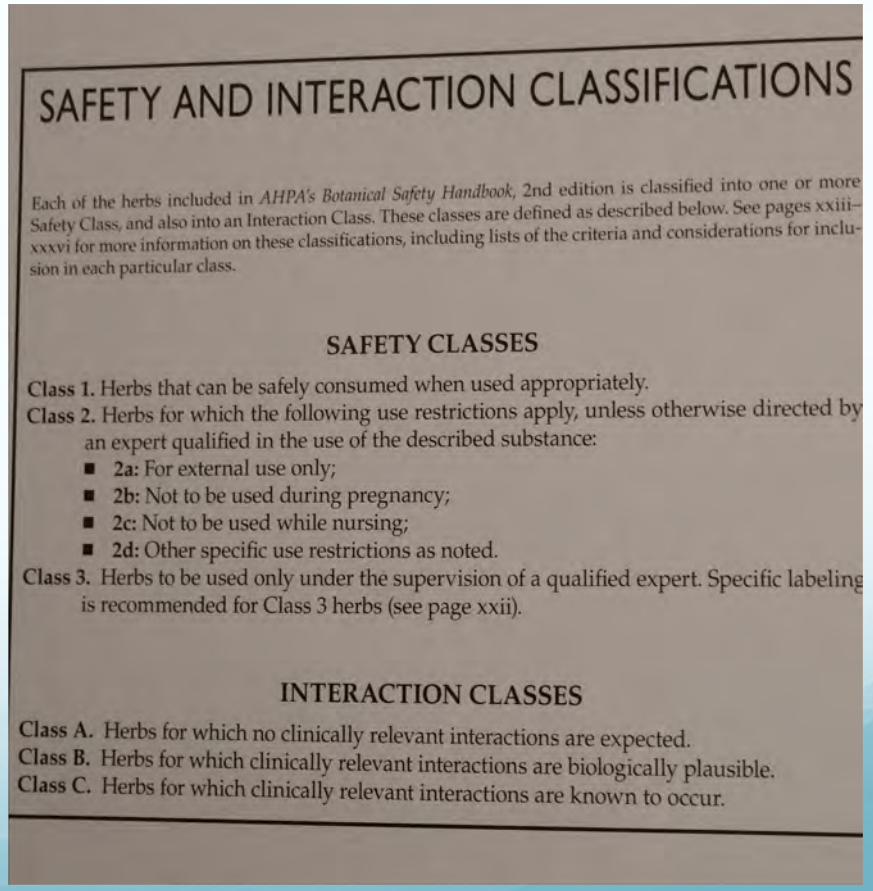
Medical and herbal substances classification

Pharmacological (changing)

- **Category A**: Controlled studies show no risk or find no evidence of harm.
- **Category B**: Animal studies show no risks, but there are no controlled studies on pregnant women.
- **Category C**: Animal studies have shown risk to the fetus, there are no controlled studies in women, or studies in women and animals are not available.
- **Category D**: There is positive evidence of potential fetal risk, but the benefits from use in pregnant women may be acceptable despite the risk (i.e. life threatening condition to mother).
- **Category X**: Studies in animals or human beings have demonstrated fetal abnormalities, or there is evidence of fetal risk. The drug is contraindicated in women who are or may become pregnant.

Category C is the confusing category. A medication gets this classification if there is insufficient data on its use during pregnancy. It could be safe or probably safe, or it could be potentially harmful.

Herbal



SAFETY AND INTERACTION CLASSIFICATIONS

Each of the herbs included in *AHPA's Botanical Safety Handbook*, 2nd edition is classified into one or more Safety Class, and also into an Interaction Class. These classes are defined as described below. See pages xxiii–xxxvi for more information on these classifications, including lists of the criteria and considerations for inclusion in each particular class.

SAFETY CLASSES

Class 1. Herbs that can be safely consumed when used appropriately.
Class 2. Herbs for which the following use restrictions apply, unless otherwise directed by an expert qualified in the use of the described substance:
- **2a:** For external use only;
- **2b:** Not to be used during pregnancy;
- **2c:** Not to be used while nursing;
- **2d:** Other specific use restrictions as noted.

Class 3. Herbs to be used only under the supervision of a qualified expert. Specific labeling is recommended for Class 3 herbs (see page xxii).

INTERACTION CLASSES

Class A. Herbs for which no clinically relevant interactions are expected.
Class B. Herbs for which clinically relevant interactions are biologically plausible.
Class C. Herbs for which clinically relevant interactions are known to occur.

Most of the time, in pregnancy, we are going to typically recommend standard of care for the community (narrowly and broadly) we serve. However, many women will decline standard of care or will present, stating they are taking something that may (or may not) be a reasonably safe alternative.

Up to 60% of pregnant women will use some form of alternative/complementary medicine during pregnancy. Some will assume that something that may be considered safe in other seasons of life is also OK in pregnancy. (examples include culinary herbs used in Most culinary herbs may be OK in culinary doses – ex oregano in spaghetti sauce or sage in Thanksgiving dressing, but not EOs, tinctures, teas or capsules.)

Minimize exposure to many herbs and alternative treatments to those needed, especially in the first trimester. Although alternative and herbal remedies have been used for centuries according to historical literature, current research is focused on pharmaceuticals. Published research is also weighted in favor of pharmaceuticals (IE positive pharmaceutical results and negative alternative results are published more) even though there may be research available on Pubmed and other non USA journals

Classes of herbs contraindicated in pregnancy (not an exhaustive list)

- Abortifacients and emmenagogues – Tansy, Thuja, Safflower*, Scotch Broom, Angelica (there are two different forms), Rue, Mugwort, Wormwood, Yarrow*, Pennyroyal. (many abortifacients are considered emmenagogues, but not all emmenagogues are abortifacients)
- Essential Oils and Volatile oils – Thuja, Oregano*, Sage, Peppermint, Pennyroyal, thyme* do not consume essential oils in general
- Teratogens – *lupinus* spp. *(*Lupine), *veratrum* spp. (skunk cabbage), *conium* spp (hemlock), *solanum* spp. (nightshades* -- potatoes green), *nicotiana* spp. (tobacco), *ferula* spp (galbanum), *trachymene* spp. (Australian white/blue parsnip – these are not indigenous to the Americas), *datura* spp. (jimpson weed), *prunus* spp. (fruits with pits – do not eat leaves, bark, or seeds), Sorghum, *senecio* spp (sting of bananas succulent)
- Alkaloids – comfrey*, coltsfoot, Borage, Goldenseal, Barberry, Oregon grape, (caffeine, nicotine, morphine, etc are alkaloids, too)
- Stimulating laxatives – cascara sagrada, castor oil, buckthorn, aloe*, rhubarb
- Phytoestrogens – hops, red clover, isoflavone extracts
- Nervous system stimulants/depressants – ephedra, guarana, coffee(oh my), kava
- * external use may be appropriate

Is it contraindicated or not?

- Many herbs are absolutely contraindicated in pregnancy. Others may be OK for topical use, but not internal. Again, except for nourishing herbs (ex nettles, chamomile, yellow dock, dandelion, milk thistle, etc), which may be consumed daily in reasonable proportions, medicinal herbs should be thought of as "medicine,"
- to keep the picture that even natural substances can have hurtful results.
- **Hemlock anyone?**

Most studied herbs for general use in pregnancy

- red raspberry leaf (*rubus idaeus) [1A*] uterine tonic
- Echinacea (*Echinacea augustifolia or purpurea) [1A*] antimicrobial, alterative, immunomodulator
- ginger *(zingiber officinale)[1A*] antiemetic, anti-inflammatory, spasmolytic , carminative, uterine circulatory stimulant, emmenagogue -in the sense of warming
- cranberry *(vaccinium macrocarpon)[1A],*antimicrobial
- German chamomile (*matricaria chamomilla or recutita)[1A*] anti-inflammatory, spasmolytic, bitter, carminative, nervine relaxant, anxiolytic, uterine spasmolytic

First trimester

As always in the first trimester – weight the risks versus the benefits

- **Threatened abortion with cramping as the main symptom (always seek appropriate care)**
- Uterine spasmolytics –
- Crampbark/black haw (*viburnum opulus/viburnum prunifolium)* [1A] (analgesic, spasmolytic). Typically taken as a tincture/extract, individually or together. Very similar herbs, as botanical names suggest. Caution – black haw is high in oxalates and should be avoided in those with a history of kidney stones or ASA allergy.

As always in the first trimester – weight the risks versus the benefits

- wild yam (*dioscorea villosa*) [1A] long history of relieving uterine contractions. May take as dried herb, infusion, tincture or extract. caution – theoretical estrogenic properties, though not confirmed with animal/human studies, so for recommended short term use (3 days at a time)
- Chaste berry (*vitex –agnus castus)*(fruit)(herbal 1A)– regulatory effect on LH, FSH, progesterone (dopaminergic agonist) – typically used for habitual abortion or known luteal phase concerns, starting in the months before conception. broad dosage range (40mg-1000mg of dried herb)
- Do not start chaste berry if known to be pregnant, but if taking for a luteal defect do not take past the first trimester. Traditionally used to prevent miscarriages in women with a history of miscarriage, has also been used as a galactagogue. If using a look for standardized to .5% agnusides . Brands I typically recommend are Gaia, Vitanica, Herb pharm.

As always in the first trimester – weigh risks vs benefits

- Uterine tonics (toning, strengthening, nourishing effect on tissue and function)
- False unicorn (*chamaelirium luteum*) [1A] historically used to reduce risk of miscarriage and treat morning sickness. An endangered species. Seek cultivated products. Taken as dried herb, tea, or extract.
- partridge berry (*mitchella repens)* (1A)– previously known as squaw vine. To increase uterine tone. Used historically to prevent threatened abortions. Taken as an extract or tincture

As always in the first trimester – weigh risks vs benefits

- **Nausea and vomiting**
- Avoid triggers when possible – foods, smells, iron supplements, odors, etc. GET adequate rest
- Adequate fluids – large amounts of fluids can trigger (1 cup/hr is a good goal)
- Nutritive enemas – in severe cases, Pedialyte can be used can be repeated. Often enough to raise energy and fluid level so that appetite is restored (yes some women will want do this)

Nausea and vomiting acupressure

Pressure point P-6, also called Neiguan, is located on your inner arm near your wrist. Doing acupressure on this point can help relieve nausea and vomiting related to chemotherapy.

1. Position your hand so that your fingers are pointing up and your palm is facing you.
2. To find pressure point P-6, place the first 3 fingers of your opposite hand across your wrist (see Figure 1). Then, place your thumb on the inside of your wrist just below your index finger (see Figure 2). You should be able to feel 2 large tendons (tissue that connects muscles to bones) under your thumb. This is pressure point P-6.

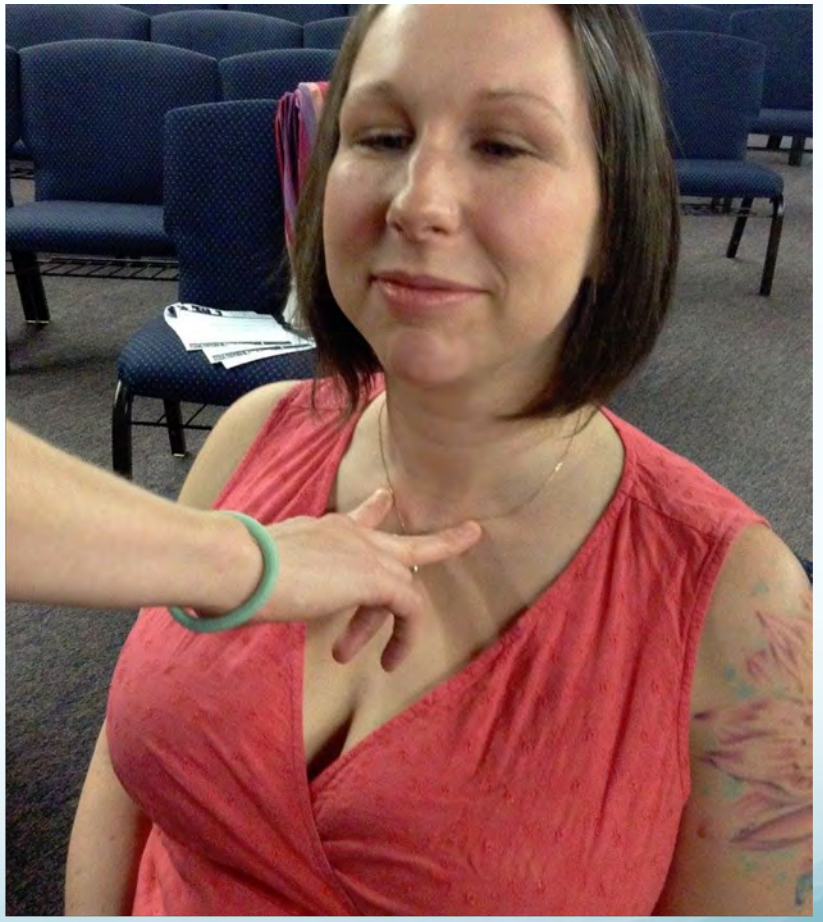
Figure 1. Placing 3 fingers across wrist

Figure 2. Placing thumb on point below index finger

3. Use your thumb or forefinger to press on this point for 2 to 3 minutes. Use a circular motion. Be firm,

Acupressure for N/V
KI 26

- For morning sickness and GERD
- slide down to the first intercostal spot between the ribs to the left and right of the breastbone to locate the spot.
- Make sure to apply moderate to firm pressure to get the desired response and have your client think about a person, place, or thing that brings her deep inner peace and relaxation while the support person is pressing on the point.



N/V

- peppermint (*mentha piperita*) (Herbal 1A), (antiemetic, spasmolytic).thought to reduce esophageal dysmobility. 2-3 cups per day. Has been used extensively in pregnancy as a tea or in candies. Aromatherapy as well. Avoid internal use of the essential oil. Caution -May decrease LES pressure and contribute to GERD.
- Note – if you see grams of dry herbs suggested – a herbal tea bag typically contains 1-1.5 grams of herbs

N/V

- Ginger *(zingiber officinale)*, [1B]—(antinauseant/antiemetic, carminative, digestive stimulant, prokinetic),. Works on serotonin receptors in the ileum, similar to ondansetron. Dosage herb up to 1.5 grams per day divided (no more than 2g have been studied in pregnancy for safety) – food, candy, nonalcoholic ginger beer, tea, ginger snaps, even. Ginger Ale has no or little ginger
- Chamomile (*matricaria recutita)* [1A] -- (spasmolytic, mild anxiolytic, anti-inflammatory, carminative) taken as a tea (AKA te manzanilla), tincture, extract
- Wild yam (*discorea villosa)* [herbal 1A]– hollow organ spasmolytic – for intractable vomiting. Acute use in pregnancy/lactation reasonable. Take as dried herb, tea, tincture, extract. Used historically – no evidence to contraindicate in pregnancy/lactation, but given estrogenic potential, long term use is not recommended (no issues with short term studies in animals).Note: wild yam cream does NOT contain progesterone unless it says progesterone USP

N/V

- Dandelion *(taraxacum offinale)*[1A] root --improve digestion, increase bile flow. Gentle liver support. Taken as tea, dried herb, tincture, extract. Caution with gall bladder disease although some reports supportive of use. Greens are very nutritious and may be eaten and have a mild diuretic effect
- Cannabis spp. – antinauseant, appetite stimulant. Most commonly used “illegal” drug used in pregnancy, because of this. Studies have shown detriment with regular use.

N/V OTC

- B6 or P5P (cat A), (antinauseant) mechanism not entirely understood. Dose 25-100 mg per day divided (time release may make it easier, but hard to find in 100mg or less). No more than 100 mg per day. Doses exceeding 1000 mg per day can cause sensory neuropathy. Not sure of mechanism. Some posit since pyridoxine has to be converted to P5P for use, there are not enough liver resources to do this with excessively high doses. Personal opinion – do a combo form of B6/P5P for faster action.

N/V OTC

- doxylamine (cat B). 12.5-25 mg q 8 hours (divided for increased coverage). May be sedating
- Meclizine (cat B)– used more in Europe (RCOG)(Cyclizine)25 mg Q 6. May be sedating.
- Cetirizine (cat B) antiemetic. One study as effective as preventing vomiting as ondansetron, but not as effective in preventing nausea. Less sedating. 10mg daily. Zyrtec comes in a dissolvable form or children's liquid (5mg) as well

Second trimester GERD

- Pathology – LES is relaxed 2/2 to progesterone and additional pressure 2/2 to the expanding uterus.
- Avoid general food triggers
- Coffee (acidic)
- Tomatoes (acidic)
- Chocolate – interesting – chocolate causes the release of serotonin in the intestine, which relaxes the LES.
- Some may be sensitive to gluten
- Stress may exacerbate

GERD

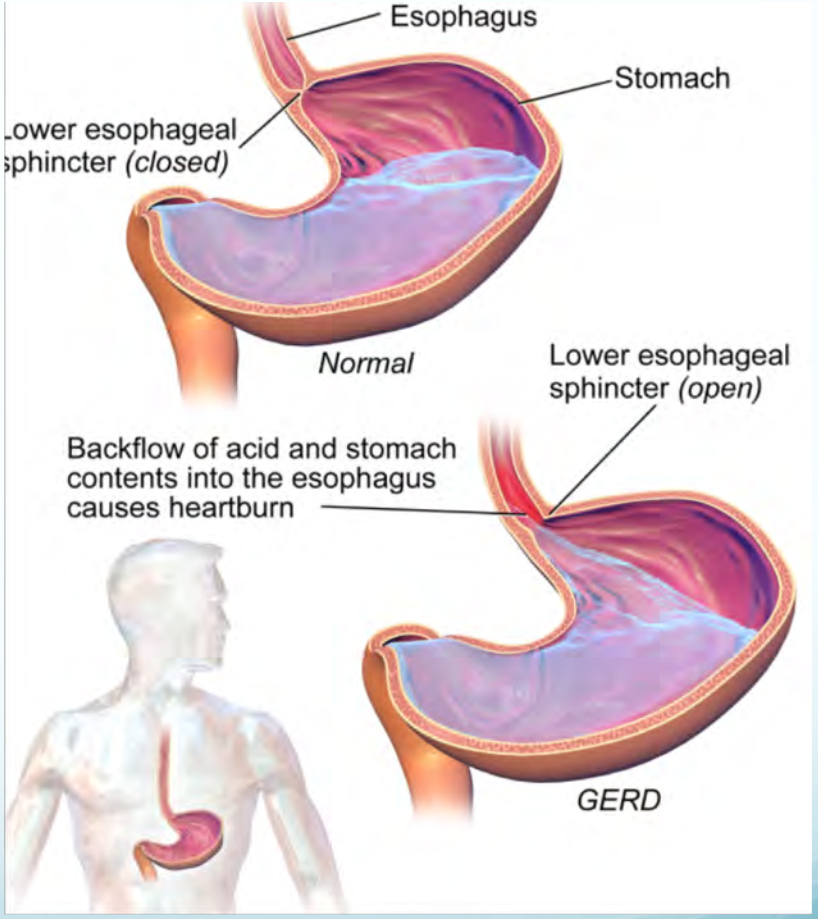
- Almonds (*amygdalis communis)* no method of action known.
- Thought more alkaline, fat and skins thought to be healing to the stomach. No studies – midwife lore – – chew 4-10 THOROUGHLY May repeat throughout the day. Also provide calcium, magnesium, which have both been used to help with heartburn as well as fiber and other nutrients.
- Marshmallow root (*althea officinalis)* [1A] (demulcent/mucilaginous) sooths, anti-inflammatory. 1-2 grams TID as a tea. Tincture 2-5ml/TID.
- Ensure at least 8 oz fluid with dose. Caution: it has been suggested that due to its mucilaginous activity it may impair absorption of other medicinal agents – take other medications a few hours earlier/later.

GERD

- Slippery elm (*ulmus rubra)* [1A] (nutritive, demulcent) –
- sooths irritated tissue and coats and protects the digestive tract. Calcium content may have some antacid effects, as well. Can be taken as a tea (but is thick/mucus like), but may not be appealing. Can add 1-2 tsp or TBL to a food like oatmeal. Ensure at least 8 ounces of liquid with dose Has a somewhat maple flavor. Also can take as a prepared form – old fashioned Thayer's slippery elm lozenges (several flavors available) 8-12 per day/PRN.

GERD

- Alginate raft– forms a “raft” on stomach contents above the acid pocket in the stomach, thus preventing acid from flowing through LES. One study showed this to be as effective as PPIs for nonerosive GERD. Safe in pregnancy. Lasts up to four hours. Take 30 minutes after meals and 30 minutes before bed.
- Example: Life Extension Esophageal Guardian (potassium bicarbonate). Alginate Plus, GaviscconPlus .Note: Many common alginate products (including other Gaviscon products) in the US contain sodium bicarbonate, which is a category C.



GERD

- Magnesium – can act as an antacid. Can help balance Ca:Mg ratio if taking Tums. Ensure meeting 400mg per day requirement (some women benefit from more)
- Magnesium citrate is fairly absorbable and inexpensive. Have not found magnesium oxide to work as well as it is not well absorbed (but works great as a laxative). Other forms – chelated, glycinate, threonate are very well absorbed. Cannot find great data supporting magnesium chloride topically, but some people think it works great!!

GERD Licorice

- **Licorice** *(glycyrrhizia glabra)* [2b,2d] (anti-inlfammatory, demulcent) typical therapeutic dose is 1- 4 grams licorice root BID. (short term use, as prescribed, less than a week has not been problematic).
- (2mg/kg (approx. 6 grams per day for 12 weeks glycyrrhizin daily is considered the NOAEL (no observed adverse effect level)
- Studies have shown a higher risk of PTB and lower IQ with heavy consumption of licorice (>500mg glycyrrhizin per week), 50 grams licorice candy is equivalent to 100 mg glycyrrhizin.

GERD Licorice

- Heavy use also associated with hormonal and electrolyte imbalance 2/2 mineralcorticoid effects. Adverse effects reported with consumption of >35grams per day for a prolonged period of time. Licorice root should contain a minimum of 4% glycyrrhizin and many commercial products are standardized to 12%
- Deglycyrrhrized licorice (DGL) has not shown to have any adverse effects and may be useful for heartburn in general, but no studies have been done in pregnant women. So, cannot recommend. For others, 2-4 tablets prior to meals
-

GERD

- Chamomile (*matricaria recutita)*[1A] (antispasmotic, anti-inflammatory, mild anxiolytic) commonly taken as a tea.
- Valerian (*valeriana officialis)* (sedative, hypnotic, anxiolytic) [1b] May need repeated doses. 150 mg capsule (standard extract 0.8% valerenic acid) 2-3x daily. Dried root (or as tea) – 1-2 g, steeped 10-20 min
- Cautions – caution in pregnancy and in those with a history of liver disease. Up to10% may have paradoxical response. May potentiate effects of ETOH, barbiturates, benzodiazepines

GERD

- Iberogast- prokinetic for Dyspepsia, IBS. Used in Europe for 40 years
- combination of herbs. Website says check with your provider. Contains some herbs contraindicated in pregnancy.
- No embryo or fetoxic issues in studies. Well known GI doc considers it safe post treatment as a prokinetic post SIBO treatment with good success for 3+ months at a time.

Iron Deficiency Anemia

- Women can expect to lose approximately 500mg of iron with each pregnancy if not careful to diet and additional sources of iron and via supplementation
- Blood volume increases 30-50%,with additional iron required to meet the needs of the fetus, placenta and increased maternal needs.
- Low dose iron supplementation (30mg per day) throughout pregnancy is as effective as a higher dose (60mg)during pregnancy to prevent iron deficiency anemia in most situations
- It is considered optimal to remain on iron for 6 months after iron levels return to normal, to adequately replenish iron stores. (some studies suggest there is an association between low ferritin and hair loss – vary in lab value ..some say under below 30 others below 70, thyroid function may be impaired at levels below 90)

Iron Deficiency Anemia

- About 10-20% of those taking iron supplements report GI side effects such as N/V, abdominal discomfort, and diarrhea. Can try various formulations of iron sulfate, gluconate, fumerate, glycinate, aspartate. My favorite is Pure Encapsulations Iron-C
- Taking Vitamin C with non-heme iron increases absorption.
- Phytates, oxalates, carbonates, calcium, tannins, and antacids (cereals, dietary fiber, tea, coffee, eggs, and milk) can interfere with iron absorption as well as antibiotics. But if consumption is more likely if one of these gets iron in the patient then…..

Iron Deficiency Anemia

- Blackstrap unsulphured molasses supply iron, calcium, magnesium, potassium
- Supposedly black strap has more Fe than regular. However, comparing these two brands suggest the regular molasses has more.

Iron Deficiency Anemia

- Floradix – a commercial product from Germany. A favorite with midwives. The combination of ingredients are effective.

Herbs for anemia

- Chlorophyll from alfalfa (*medicago sativa)* (Herbal 1A).
- chlorophyll has a very similar molecular structure to hemoglobin, but magnesium is its base rather than iron. Magnesium is a part of RBCs (and can be measured via an RBC magnesium). Magnesium has been shown to help reduce anemia in those with Beta thalassemia and improve those with sickle cell anemia. It is thought that the magnesium helps RBC to remain appropriately hydrated and reduces inflammation, which may also assist with intestinal absorption of iron. Chlorophyll also contains copper, which helps with the absorption of iron.
- 1-2 TBL per day (liquid) can mix with OJ

Herbs for anemia

- Nettles (*urtica dioica*) [1A]. (adaptogenic, nutritive) not a single treatment, but part of an overall treatment for anemia – contains iron and chlorophyll, vitamin C. Use as a tea, infusion, tincture, extract or can cook leaves as greens (PS Do NOT eat raw. They call it stinging nettles for a reason!)
- Yellow dock (*rumex crispus*) [1A] (alterative, cholagogue, aperient, nutritive). Believed to increase the uptake of dietary iron. Powder or tea
- Dandelion *(taraxacum offinale)*[1A] root (hepatic alterative, support liver detox/elimination of hormones, relieve constipation, nutritive), tea, tincture, extract.

Popular Midwife Iron Tonic

- ½ ounce (15 grams) yellow dock root, ½ (15 grams) ounce dandelion root ½ cup blackstrap molasses
- Directions – prepare a decoction by simmering herbs in 4 cups of water until reduced to 1 cup. Strain thoroughly and discard plant matter. Add ½ cup black strap molasses, mixing until blended. Cool. Refrigerate. Keeps up to 2 weeks.
- Dose 1-2 Tbl up to twice daily, depending on severity of anemia

Uterine Irritability

- ALWAYS, ALWAYS, ALWAYS !!! RULE OUT PRETERM LABOR!!!!
- Contractions every 10 minutes or less
- ROM
- Vaginal bleeding
- Pelvic pressure
- Dull lower backache
- Menstrual like cramps
- Abdominal cramps

Uterine Irritability

- Uterine spasmolytics
  - Cramp bark, black haw
- Muscle relaxants
  - Wild yam (no more than 3 days)
  - Jamaican dogwood (*piscidea erythrina or piscipula)(*analgesic) Tincture 2-4mL/d. (no more than 3 days) Do not exceed recommended dose. Not recommended in pregnancy except under the guidance of a qualified practitioner. Not in first trimester
- Ensure adequate fluids. Urine should be almost colorless
- Ensure meeting daily requirements of magnesium and sodium

Third Trimester

- **Constipation -- Treatment/prevention**
- Fluids—water and other non caffeinated beverages - 2 liters per day for most
- Increase consumption of high fiber foods – fruits (of course prunes are good and more effective than psyllium in one study—and liked better, Kiwi -motility), veggies, legumes, whole grains
- Decrease consumption of constipating foods, especially high fat – cheese, ice cream, milk
- Increase exercise – even a brisk walk daily (part of the prenatal prescription used to be to walk at least a mile daily)
- Do not delay or ignore the urges to have a BM
- Decrease or omit cow's milk, as it can slow down peristalsis in some individuals
- HERBS ARE NOT A SUBSTITUTE FOR THE ABOVE

Constipation

- Probiotics can increase stool frequency. L Reuteri. Bifidobacteria (B. bifidum, B. infantis, and B. longum) and Lactobacillus (L. casei, L. plantarum, and L. rhamnosus) increase bowel movement frequency, decrease fecal incontinence, and reduce abdominal pain in children 4-16 years of age;
- AVOID – aloe vera [2b] (teratogenic in animals when taken internally)
- Avoid harsh stimulant laxatives (can over stimulate the bowel and the uterus due to the proximity- cascara sagrada (*frangula purshiana)*, Buckthorn (*Rhamnus cathartica),* Chinese Rhubarb (*rheum palmatum)*, castor oil (*ricinus communis*).
- Osmotic laxatives – sorbitol, lactulose, glycerin not typically recommended in pregnancy – may increase salt retention

Bulk laxatives

- 6-12 hours to results commonly – safest (oils for lubrication + fiber)
- Flax *linum usitatissimum),* Psyllium (*plantgo, psyllium, p ovate*), Sesame (*sesamum indicum*),chia (*salvia hispanica*)
- CAUTION – 1-2 cups of non-caffeinated fluids should be consumed with bulk laxatives

Constipation

- Yellow dock and dandelion are aperients – gentle laxative effects, as does molasses, so our midwife iron tonic would be appropriate
- Acute constipation – senna (*cassia senna*) [2b] stimulating laxative. Action via anthracoids. Not to be used on a regular basis. Combine with carminatives such as ginger, chamomile, peppermint, valerian to help avoid griping, cramping, flatulence
- Old standard - MOM – 1 TBL with meals and at bedtime (provides 1200mg MgOH per 15 ml)

Group Beta Strep

- NO RELIABLE SUBSTITUTE for antibiotics if GBS +
- As GBS early onset infection of the newborn can be deadly, 8 in 1000 who is colonized will become ill. This means, though, that potentially 100s of women are treated with antibiotics unnecessarily. Many women are concerned with exposure to antibiotics if not needed.
- Vaginal washes with iodine or Chlorhexadine during labor have not been shown to be effective in randomized trials.
- No evidence on the safety or effectiveness of garlic PV for prophylaxis.
- A small pilot study indicated a reduced risk of GBS maternal colonization with long term PO probiotics. Larger studies are underway. Although many lactobacillus strains may helpful in preventing recurrent UTIs and vaginal infections, those with the most studies (I found) in both areas are using L Rhamnosus GR1 and L Reuteri RC14 Help to recolonize the vagina with healthy vaginal flora with no known negative side effects

GBS Prevention????

- Immunomodulators can strengthen the immune response and safe to take throughout the pregnancy. Medicinal mushrooms are examples.
- Shiitake (*lentinus edodes*), Turkey Tail (*trametes versicolor*), reishi (*Ganoderma lucidum)*. 1-4 Grams of a 5:1 powdered extract. Teas are packaged this way. Easy to obtain.
- Echinacea (*Echinacea purpurea)* immunomodulator/antibiotic Liquid extracts are thought to be the best for this purpose. approximately 5 ml daily for prophylaxis.
- Garlic (antimicrobial – allicin) Theoretical risk of increased bleeding with high levels of garlic consumption. May wish to discontinue 2-3 weeks before EDD.
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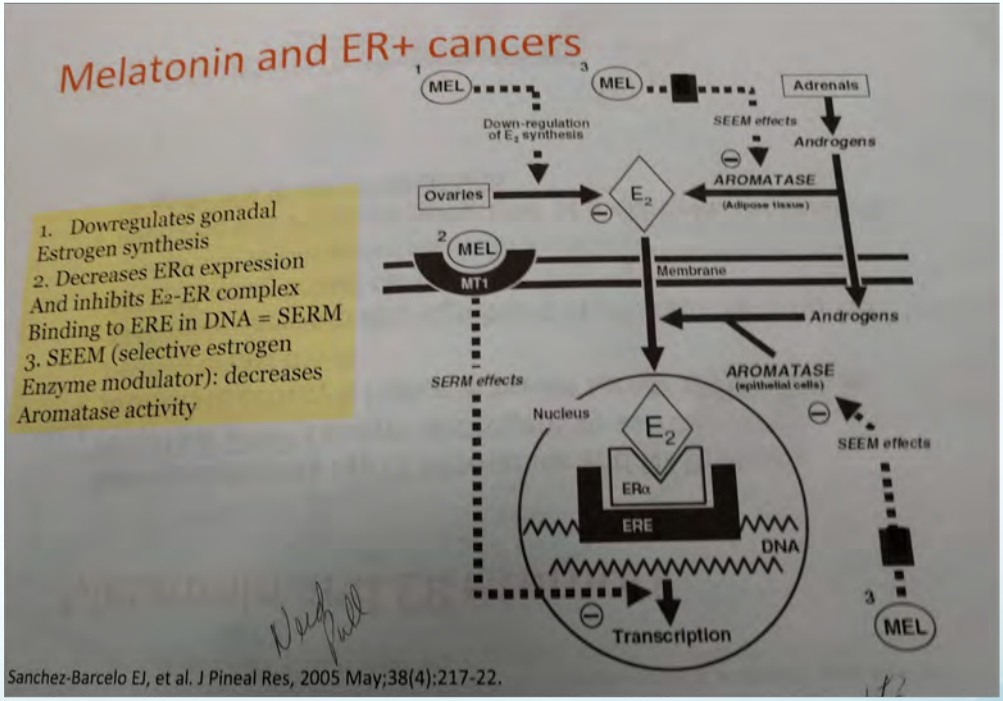
Insomnia causes

- **Sleep onset insomnia**
- Anxiety/tension
- Environmental change
- Emotional arousal
- Fear of insomnia
- Phobia of sleep
- Pain/discomfort
- GERD
- Caffeine
- Poor sleep hygiene

- **Sleep maintenance insomnia**
- Depression
- Environmental change
- Sleep apnea
- Cramping
- Hypoglycemia
- Parasomnias
- drugs

Insomnia

- Melatonin
- Not appropriate in pregnancy due to hormonal effects and decreased development of mammary tissue in animal models, it is not recommended in pregnancy and lactation



Herbs for insomnia

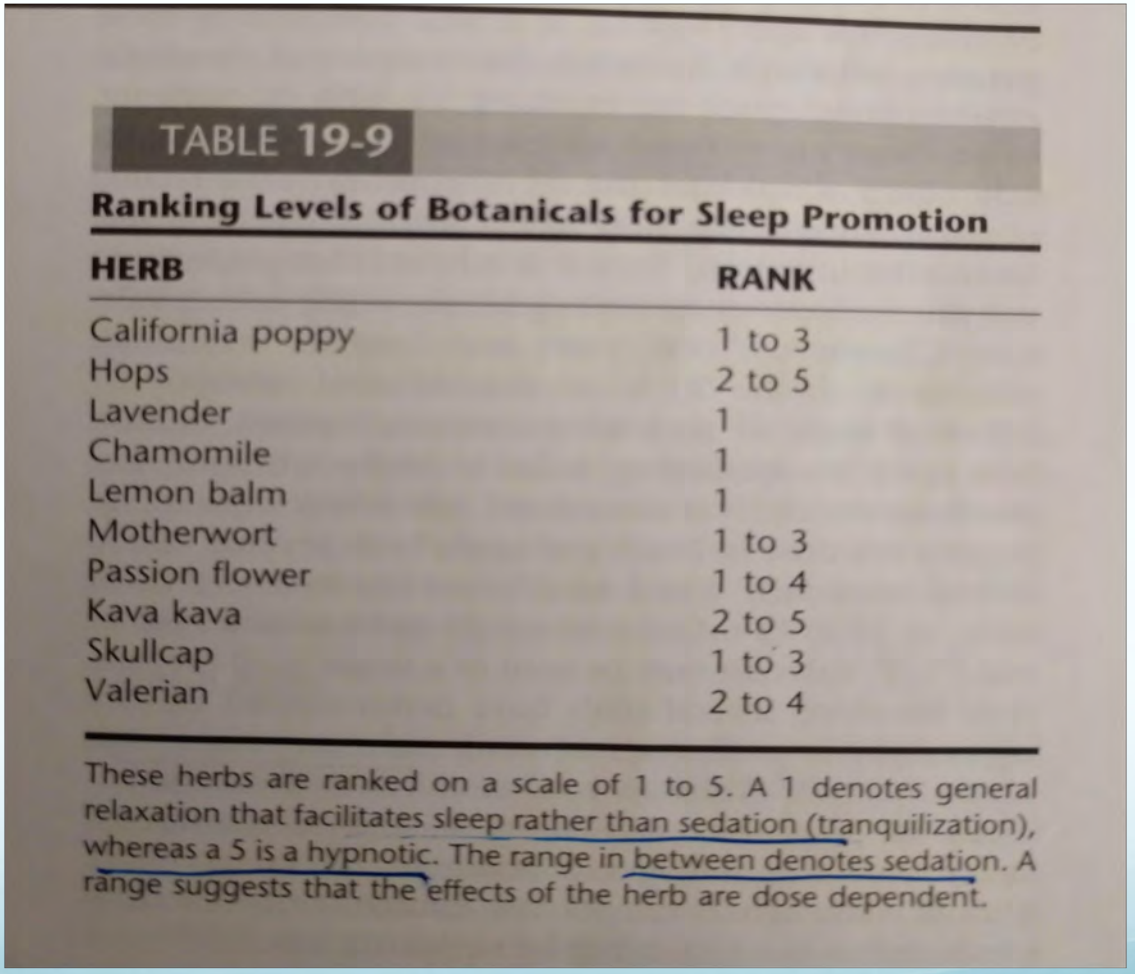


TABLE 19-9

Ranking Levels of Botanicals for Sleep Promotion

HERB	RANK
California poppy	1 to 3
Hops	2 to 5
Lavender	1
Chamomile	1
Lemon balm	1
Motherwort	1 to 3
Passion flower	1 to 4
Kava kava	2 to 5
Skullcap	1 to 3
Valerian	2 to 4

These herbs are ranked on a scale of 1 to 5. A 1 denotes general relaxation that facilitates sleep rather than sedation (tranquilization), whereas a 5 is a hypnotic. The range in between denotes sedation. A range suggests that the effects of the herb are dose dependent.

Insomnia

- Teas are excellent forms to take herbs, but consider tinctures for consumptions less than two hours before scheduled bedtime to avoid getting up to the bathroom
- Nervines (relaxant) and Sedatives
  - Lavender (*lavandula officinalis)* [1A} relaxant/anxiolytic/antidepressant (tea, tincture, extract,aromatherapy)
  - Chamomile relaxant/anxiolytic
  - Valerian relaxant/sedative

Insomnia

- Passion flower *(passiflora incarnata)* [1A] relaxant/anxiolytic, antidepressant. German Commission E – for nervous restlessness. ESCOP -- treatment of tenseness, restlessness, irritability, difficulty with falling asleep. Tea, tincture, extract
- Not recommended for daily use in pregnancy

Insomnia

- **Spasmolytic for restless legs, cramping, etc**
- Lemon balm (*Melissa officinalis) [*1A*]* relaxant, antidepressant, cholagogue, supports the cardiovascular system, antiviral, antimicrobial) tea, capsules, tincture, extract. theoretical concerns with TSH binding impairment. Studies lacking to show this. Caution in those with thyroid issues.
- Cramp bark/ Black haw
- Valerian
- Skullcap *(scutellaria laterafolia) [1A]* antispasmotic, relaxant, anxiolytic. Teas, extracts, tinctures. Ensure that label uses botanical name or “blue skullcap”. Chinese skullcap is a different herb

Insomnia

- **Magnesium** – relaxant, helps prevent RLS, migraine HA, leg cramps
- **L theanine --**, an amino acid is a component of green tea. It has shown promise as an anxiolytic. Several "mom blogs" promote L –theanine as an anxiolytic pre pregnancy. No direct studies have been done with pregnant women and L – theanine. However, green tea in reasonable quantities may be protective to offspring.
- Two-four cups of green tea would contain 50-200mg of L-theanine (some other resources say less) Green tea contains 28mg caffeine per 8oz cup (USDA). Four cups would have around 110mg caffeine (alkaloid), which would be under the 200mg per day suggested caffeine limit in pregnancy, although decaffeinated green tea would still contain L theanine (the caffeine alkaloid is removed).
- Another concern has been raised concerning interactions of the catechins in green tea and lowered folic acid metabolism. The studies appear to be mixed and the decrease appears to be more associated with supplemental folic acid rather than that obtained from the diet.
- Thoughts – Can one isolate this one element of green tea and still have protective effects? If choosing to drink green tea in the preconception period, would likely be beneficial to up one's folate intake from direct food sources rather than enriched (legumes, dark leafy greens, okra, beets are all high in folate)

Lifestyle

- Create an environment conducive to sleep (dark room, support pillows, block out distracting sounds)
- Gentle yoga in the evening
- Warm bath with relaxing oils such as lavender
- Turn off electronic devices an hour before bed
- Get into bed 30 minutes before intended sleep – read positive or distracting material or write in a journal
- Relaxing music
- Aromatherapy
- Avoid caffeine in the late afternoon and evening
- Avoid spicy foods in the evening
- Avoid heavy meals within 2-3 hours of bed time.
- If awakening in the night, unable to sleep, consider having quick light protein snacks available for quick access.

PUPPPs

- Pruritic Urticarial Papules and Plaques of Pregnancy
- Estimates are that 1 in 120-300 pregnant women will have PUPPPs. Approximately 75% of those with PUPPPs are pregnant for the first time. Multiple gestations are at higher risk. In other parts of the world, it may be known as polymorphic eruption of pregnancy, toxemic rash of pregnancy or late-onset pruigo of pregnancy.
- Etiology of PUPPPS is unknown. One theory suggest that the abdominal stretching of pregnancy leads to an inflammatory response in the connective tissue. A more recent theory is a maternal response to fetal circulating antigens as fetal skin tissue has been found in maternal lesions.
- Typically starts with erythematous papules within the striae, usually on the abdomen and thighs, which eventually spread to the extremities. May also become hives (urticarial plaques). Usually the periumbilical area, breasts, face, palms and soles are unaffected.
- Hallmark is ITCHING, which may disturb sleep and interfering with normal activities.
- Usually resolves by 10-15 days post partum. A majority of women do not have it in subsequent pregnancies

PUPPPs – things you have around the house

- Things around the house --
- Baking soda paste
- Witch hazel compress (helpful but not quite as effective as cortisone in one study)
- Oats (soak rolled oats and use the whitish liquid) or put a cup of rolled oats in a sock. Place in the bath and let it soak up liquid. Then, squeeze out “milk” and enjoy the bath.
- Aloe vera gel (no contraindication on liberal topical use)
-

PUPPPs – botanical treatments

- Topical and oral inflammatories
- Nervines to improve sleep and irritability from itching
- Hepatic alteratives (alteratives thought to “alter” the body’s metabolic processes/eliminate waste through the kidneys, liver, digestive system, lungs, skin.)
- Adaptogens as immunomodulators (adaptogens increase the body’s nonspecific resistance and vitality; helps the individual defend against the effects of chronic and acute stressors o the body).

Botanical topicals

- Chamomile (approved by the German Commission E for the treatment of skin conditions) prepared in a cream.
- St John's Wort (*hypericum perforatum*) [2c] Used topically – oil - -- inhibits epidermal immune response

Botanical PO

- Encourage rest - see insomnia herbs
- Alteratives – gentle liver support – dandelion root, yellow dock
- Licorice – inhibits prostaglandin synthesis similar to cortisone. Don't take for more than a week at a time. Avoid totally if hypertensive
- Milky oats – nervine. Take as food or as a tincture. Usually combined with other nervine or sedating herbs (chamomile, passionflower, lavender, etc)
- Nettle– "adaptogenic" anti-inflammatory (tea, extract, freeze dried capsules) can also eat nettle greens
- EFAs – plant or fish oils have anti-inflammatory properties

Varicosities

- Saphenous veins have progesterone and estrogen receptors, hormones may contribute to stasis during pregnancy. Mechanical pressure from the weight of the uterus, fetus, and added weight.
- Supportive Treatment
- Elevation
- Compression (hose, socks, leggings, vulvar support)
- Regular exercise
- Sleeping in side-lying position
- Avoid prolonged sitting or standing
- Foods rich in rutin (buckwheat, apricots, cherries, grapes, grapefruit, plums, oranges) support vessel strength
- Avoid constipation

Varicosities - external

- Black tea bags (brew in small amount of water, cool and place on affected area for 30 minutes or so) the tannins are believed to be astringent
- Grated white potato - old folk remedy for inflammation. Recent study shows anti-inflammatory effects (apply as poultice)
- Witch hazel Witch hazel (*hamamelis virginiana*) [1A] (astringent, anti-inflammatory) ESCOP and German Commission E for treatment of skin/mucosal inflammation. Apply compresses. Safe topically in pregnancy.
- Yarrow (*achilliea millifolium)* [1A] astringent/antihemorrhagic/antispasmotic. Appropriate only topically in pregnancy

Varicosities - internal

- Nettle – thought to be venotonic
- Bilberry (*vaccinium myrtillus)*-[1A] decreases vascular permeability. Has been used for gestational hemorrhoids and venous insufficiency of pregnancy. 160-340 mg per day in divided doses – capsules
- Horse chestnut *(aesculus hippocastanum)* [1A] venous insufficiency and vascular fragility. One small study used a German product, Venostasin twice daily for two weeks with. (Similar product in the US, Venotone by Life Extension.) Dosage 300 mg twice daily, standardized to contain 50 mg aescin per dose. If using a tea, 1-2 grams/3x/day.
- Rutin (capillary fragility) appears to be safe. Safety after 28 weeks EGA confirmed in at least two studies. Best consumed from food sources

Labor and Birth

- Many women ask if there's something to take to encourage labor. Except for uterine toners like red raspberry leaf tea, which most can take regularly, a large portion of "partus preparators" have little evidence to back them up or the evidence is mixed.
- Other herbs known to stimulate uterine activity should only be utilized by those who are very familiar with their use, dosage, and able to monitor the mother and fetus.
- One of the herbs that does stimulate the uterus is blue cohosh (*caulophyllum thalictroides*) [2b] Although it was previously used as part of the National formulary as late as 1950, newer reports have raised concerns of fetal heart irregularities, myocardial infarction, increased meconium, and multiorgan failure in the newborn. It has been removed from Partus preparators by most reputable herbal companies.
-

Common things women do

- Red raspberry leaf tea (uterine toner) – take from 32 weeks gestation. does not stimulate labor or reduce duration. There were fewer preterm and post
- Evening primrose oil (*oenothera biennis*)– has been used for cervical ripening or labor induction, although there is little data to back it up. A small study indicated no shortening of pregnancy and a small increase in women with PROM, so more likely to need labor stimulation. Another study found that there was an increase in Bishop's score, but no difference in time to the start of labor. More women gave birth vaginally in the treatment group.
- Dates – eating six dates per day the last 3-4 weeks of pregnancy resulted in shorter latent, 1st and 3rd stage of labor, and less need for augmentation/induction.

Common things women do

- Castor oil – a powerful cathartic, used as far back as ancient Egypt to stimulate labor. Was recommended at times by doctors as late as the 1950s. By stimulating the surrounding intestines, the uterus MAY be stimulated into contracting. There is very little data supporting its use or differences in outcomes.

- Nipple stimulation – manually or with a breast pump. Suggested 15-30 minutes three times a day. With a favorable cervix, more women were in labor within 72 hours and there was less likelihood of post partum hemorrhage. Another study found that the time from stimulation to active labor was shorter in the nipple stim group. The cautionary issue is the uterus can be hyperstimulated (4.1% of participants), affecting fetal heart rate.

- Sexual intercourse – the prostaglandins in the semen are thought to have an effect on the cervix. However, it is uncertain whether the stimulating effects are from the semen, the stimulation of the lower uterine segment, or the release of oxytocin from orgasm. A Cochran review determined that no meaningful conclusions could be drawn.

Postpartum
Needs of the new mom

- Time to focus on the newborn and older children
- A good, confidential, listener
- To feel protected, honored, and nurtured
- Reassurance she is doing a good job
- Noncritical support and advice
- Praise and encouragement
- To have concerns taken seriously by family and care provider
- Some self time (peaceful bath/shower, some quiet time)
- Ample, healthy food
- ADEQUATE REST
- Respect for her emotions

Afterpains

- Associated with the normal process of uterine involution
- Typically more intense when baby is nursing
- May complain they are worse with each subsequent birth
- Unless a vaginal birth was accompanied by a third or fourth degree laceration, opioids are rarely needed and if given, for not more than the first week.

Herbal Safety in Lactation

TABLE 21-2 Safety of Herbs for Postpartum Depression

Herb	Risk Category During Lact
American ginseng (*Panax quinquefolius*)	See Ginseng
Ashwagandha (*Withania somnifera*)	L1
Blue vervain (*Verbena officinalis*)	No data
California poppy (*Eschscholzia californica*)	L2/L3
Chamomile (*Matricaria recutita*)	L1/L2
Chaste berry (*Vitex agnus-castus*)	L2
Dong quai (*Angelica sinensis*)	L2/L3
Eleuthero (*Eleutherococcus senticosus*)	See Ginseng
Ginseng (*Panax ginseng*)	L1/L2
Kava kava (*Piper methysticum*)	L3-L5
Lavender (*Lavandula officinalis*)	L1/L2
Lemon balm (*Melissa officinalis*)	L1/L2
Milky oats (*Avena sativa*)	L1/L2
Motherwort (*Leonurus cardiaca*)	L1/L2
Nettle (*Urtica dioica*)	L1/L2
Passionflower (*Passiflora incarnata*)	L1/L2
Peony (*Paeonia lactiflora*)	L2/L3
Rosemary (*Rosmarinus officinalis*)	L2
Schisandra (*Schisandra chinensis*)	No data
Skullcap (*Scutellaria lateriflora*)	L1/L2
St. John's wort (*Hypericum perforatum*)	L2/L3

See Table 21-3 for ranking scheme.

Risk Category		Description
L1	Safest	No adverse effects observed in infants of lactating mothers Controlled studies demonstrate no increased risk
L2	Safer	Limited studies demonstrate no increased risk Known constituent profile suggests no increased risk Extensive historical/traditional use profile suggests no evidence of risk
L3	Moderately safe	No controlled studies in breastfeeding women or controlled studies demonstrate minimal adverse effects
L4	Possible risk	Positive evidence of risk, but benefits may make risk acceptable
L5	Contraindicated	Significant documented risk Significant potential for risk based on known constituent profile

Adapted from Hale T: *Medications and mother's milk: a manual of*

Afterpains

- Interventions for after pains
- Urinate frequently.
- Teach woman to find her own uterine fundus and self massage.
- Heat applied to the abdomen
- Lying on one's abdomen
- NSAIDs

Afterpains -Herbal interventions

- Cramp bark / Black Haw (spasmolytic, analgesic, tonic)
- Motherwort (*leonurus cardaica)* [L1/L2] Classinc historical herb for PPD, anxiety with palpitations, and stress. Mother wort –healing herb for mothers + botanical name – heart of a lion. Uterine tonic and antispasmotic, liver support, nervine, sedative, stress, anxiety, and palpitations. Popular for its perceived ability to assist with irritability and labile moods. Best as an extract or tincture 2-5 ml/TID. Desired part is flowering tops.
- Easiest as a tincture rather than tea (bitter). Commercial product "Afterease" available online or at a natural foods store (cramp bark, black haw, motherwort, yarrow*)
- Chamomile tea(anti-inflammatory, spasmolytic, carminative, nervine relaxant, anxiolytic)
- Catnip tea (*nepeta cataria*) [1A] (spasmolytic)
- Used together, act synergistically for mild cramping and with the above tinctures for severe discomfort.

Postpartum Depression

- POSTPARTUM DEPRESSION
- Affects 15% of mothers, perhaps more (some are not assessed)
- Usually begins 2-3 weeks postpartum, but can occur anytime within the first year
- Women experiencing extreme depression, suicidal thought, or thoughts of harming her baby or children requires immediate help through her provider, emergency hotline, or the local emergency room/crisis center.

PPD Risk Factors

- Smokers
- Prior history of depression/prenatal depression
- Prior history of premenstrual dysphoric disorder (PMDD)
- Unplanned/unwanted pregnancy
- Difficult pregnancy
- Those who describe their health as “not good”
- Child care stress
- Life stress
- Lack of social/marital support
- Prenatal anxiety
- Low marital satisfaction/poor relationship
- Difficult infant temperament
- Low self esteem
- Low socioeconomic status
- Single motherhood

PPD theories

- Rapid change in hormones –reproductive, insulin
- Thyroid insufficiency (low ferritin??)
- Inadequate intake fatty acids, B vitamins, iron, zinc
- Persistent fatigue
- Lack of support
- Contributing factors – negative birth experience, early maternal-child separation

PPD Prevention

- Prevention of PPD
- Talk about it before the birth – encourage planning for support after the birth.
- Develop realistic goals
- Adequate nutrition
- Adequate rest
- Exercise

PPD Herbal Interventions

- Herbal remedies are the primary pharmacologic therapy in many European countries and are gaining recognition in the US.
- Adaptogens – improve stress and stress response.
- Must -- act nonspecifically, provide a normalizing effect, must be innocuous to have a broad range of therapeutic effects without causing any disturbance to the normal functioning of the organism (not recommended in pregnancy due to lack of research, although some are regularly given in TCM to help prevent miscarriage)

PPD Herbal interventions

- Examples of most common adaptogens--
- Ashwagandha (*withania somnifera*).[L1] tincture/extract, capsules , 300-500mg with meals. Take at breakfast if taking all at once. Tonic, Anxiolytic, antidepressant, insomnia, fatigue, irritability, immune system support, anti-inflammatory, thyroid support, energy. May also have hematopoetic effects.
- Eluthero (*eleutherococcus senticosus*) [L1] (previously known as Siberian Ginseng) tincture/extract, capsules .5 -4 grams per day. Tonic, Anxiolytic, anti-inflammatory, antidepressant, sleep, fatigue, immune system support, energy
- Ginseng (*panax ginseng*) [L1/L2] 200-400mg, although as low as 40mg may be bioactive. Antidepressant, anxiolytic, thyroid support, immune support, energy

PPD – Herbal interventions

- Other common herbs --
- St John's wort (*hypericum perforatum*) [L2/L3] (sertraline L2). Most studied herb for depression. As effective as antidepressants for mild and moderate depression and superior to placebo in major depression. Is not contraindicated in pregnancy, but studies are lacking. Milk transfer is minimal. Tincture/extract, capsules (300mg/TID) look for Hypericin or hyperforin content. Caution – potent P450 3A4 inducer. Contraindicated with the use of other drugs, such as MAOIs and SSRIs.
- Motherwort (*leonurus cardaica)* [L1/L2] Classinc historical herb for PPD, anxiety with palpitations, and stress. Mother wort –healing herb for mothers + botanical name – heart of a lion. Uterine tonic and antispasmotic, liver support, nervine, sedative, stress, anxiety, and palpitations. Popular for its perceived ability to assist with irritability and labile moods. Best as an extract or tincture 2-5 ml/TID. Desired part is flowering tops.
- Passionflower (*passiflora incarnate*) [L1/L2] German Commission E – for nervous restlessness. ESCOP -- treatment of tenseness, restlessness, irritability, difficulty with falling asleep. Aerial parts as tea 4-8g per day. Tincture/extract 1-4ml/TID

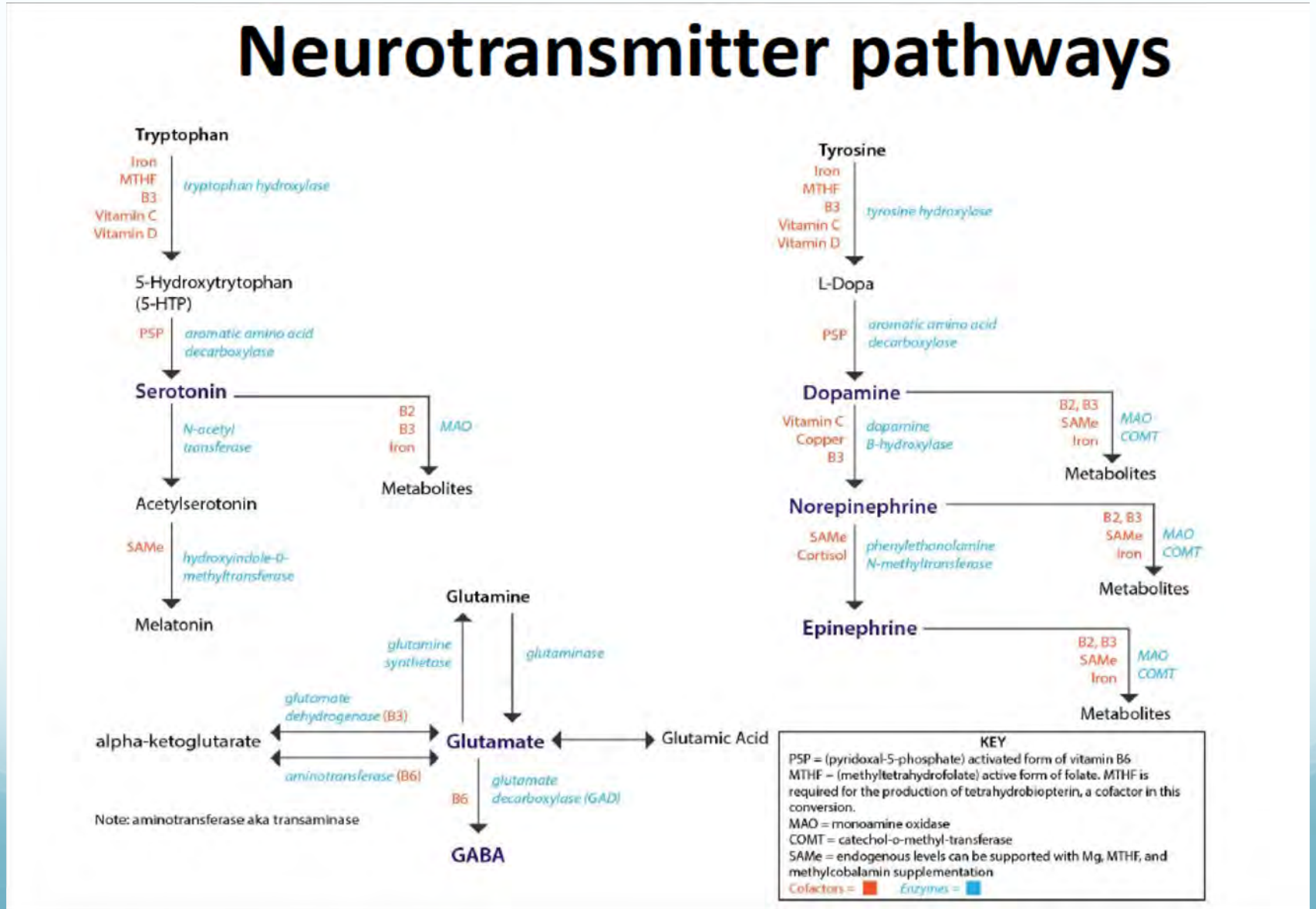
PPD additional thoughts

- An Rx supplement/prenatal that we found very effective in our practice –
- Enlyte/EnbraceHR (EnbraceHR is covered in some states by Medicaid money as a prenatal vitamin– alas not in Oklahoma)
- Enlyte formula marketed to mental health providers. This has been available through Tricare mail order or mail order through the manufacturing company, otherwise it is quite expensive if filling at CVS, etc.

PPD- Nutrition

- Omega 3s-- DHA + EPA with higher concentration of EPA. 1-3 Grams per day with 1 gram EPA per day showing consistent benefits in major depression.
- Low vitamin D level is associated with depression. Breastfeeding moms more likely to be deficient in vitamin D.
- Low magnesium is associated with depression.
- Low ferritin associated with poor thyroid functioning, hair loss

B vitamins, Vitamin C, and D are all needed for the formation of neurotransmitters.



Dusti's Postpartum supplement "cocktail"

- especially those who scored as potentially depressed on the Beck scale and wanted to use something "natural" and can't afford the Enlyte
- 6400IU Vitamin D (for breastfeeding- requires daily dosing. Infant receives 10% of maternal intake) 2-4000IU for those not breastfeeding
- 300-500 mg Magnesium citrate (or glycinate, threonate)
- Approximately 2 grams EFAs to include 1 gram EPA
- B complex vitamin (often recommended Jarrow B Right due to methyl forms of B12, folate, and a combo of P5P and pyridoxine)

Helpful recources

- www.ars-grin.gov/duke Dr Duke's phytochemical and ethnobotanical database
- www.examine.com research on supplements and some herbs
- www.consumerlab.com tests supplements and compares stated and actual ingredients. Subscription service. Very reasonable
- www.cms.herbalgram.org American Botanical Council. Many herbal monographs available
- www.penstatehershey.adam.com lots of great integrative medicine info – ADAM may also be used by other schools

Helpful resources

- www.swsbm.com/despensatory/USD-1918-complete.pdf historical data from 1920 and medicinal herbal use
- https://www.fammed.wisc.edu/integrative/resources/ U Wisconsin Center for integrative medicine. LOTS of useful info and handouts!!!!!
- https://naturalmedicines.therapeuticresearch.com lots of great up to date info. Subscription service

Thank You!

Info

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