

# **Herbal Medicine in Pregnancy, Birth, and Lactation**



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# **Issues Arising for Herbal Medicines in Pregnancy**

- Source of information: literature review, clinical trials, survey, clinical observation, empirical data
- Safety and Toxicity: for fetus, mother, and pregnancy outcome
- Ethical Issues
- Lack of clinical research with this population
- Treatment of a complaint arising during pregnancy or augmentation of labor versus treating the pregnancy
- Less cautious attitude because herbs are natural

# Raspberry leaf study for safety and efficacy in pregnancy

- Retrospective observational design
- Determine safety and efficacy when used during pregnancy
- 108 mothers 57 consumed raspberry leaf products and 51 did not
- Shorten labor
- Decrease risk of pre or post-term gestation.
- Less likely to receive AROM or C-section, forceps, or vacuum birth
- No side effects to baby or mother identified



# Ginger

- A double-blind, random, crossover trial
- Efficacy of ginger against placebo in the treatment of hyperemesis gravidarum
- 30 women, 250mg QID for 4 days
- Showed a significantly greater reduction in the symptoms of nausea and vomiting in the ginger group ( $p=0.035$ ).

# Echinacea Supplementation

- Echinacea treatment of colds and flu during pregnancy
- Observational study following 412 women during their pregnancy, 206 using Echinacea supplementation and 206 did not.
- Researcher found no statistical differences between the groups in terms of pregnancy outcome, delivery method, maternal weight, birth weight, or fetal distress.

# Considerations for Pregnancy

- Most constituents will pass thru the placenta and reach the fetus.
- The pregnant body under goes physiological changes in metabolic processes, which may influence the effect of herbal medicines in the body.
- Take extra caution in the first trimester
- All herbs have the potential to be harmful. Use medicinal herbs as medicines.
- Choose herbal preparations which are appropriate and complementing to the pregnancy, such as teas, flower essences, extracts, and topical applications.



# Herbal Contra-Indications in Pregnancy

- True emmenagogues such as pennyroyal, tansy, wormwood, and cotton root bark
- Anti-histamine herbs such as ephedra, and osha
- Alkaloids this active constituent depresses the CNS, berberine, ephedrine
- Diuretics of the irritating nature, those high in volatile oils like juniper berry, or buchu
- Laxative herbs such as buckthorn, aloe, castor, and senna pods
- Plants high in volatile should be avoided in the first trimester and used only in moderation during the second and third trimesters.
- Most are ok in cooking or baking

# Incorporating Botanical Medicines into the Prenatal Consult

- Educating about the Use of Herbs
  - Culinary, Beverage, Tonic, Medicine
  - Internal or External
- Herbal Pharmacy & Preparations
  - Appropriate, complementing pregnancy preps such as teas, flower essences, extracts, and topical applications
- Dosing in Pregnancy & Lactation
  - Consider the Pregnant Physiology
- Herbs for the Different Trimesters
  - First, Second, Third, Fourth



# Magic Happens Here





# Traditional Herbal Medicines used in Pregnancy

Treatment of threaten miscarriage, cervical ripening, induction of labor, and augmentation of labor

Single Herbs;

- Raspberry leaf *Rubus idaeus*
- Nettle leaf *Urtica dioica*
- Partridge berry *Mitchella repens*
- Black haw and cramp bark *Viburnum sp*

# Partus Preparator

Commonly used herbs include;

- ✧ Blue Cohosh (*caulophyllum thalictroides*)
- ✧ Black Cohosh (*cimicifuga racemosa*)
- ✧ False Unicorn (*chamaerlirium lutuem*)
- ✧ Black Haw (*viburnum prunifolium*)
- ✧ Partridge Berry (*mitchella repens*)



# Botanical Preparations Used In Pregnancy

- Oral; Infusions, decoctions, tinctures, glycerites, capsules, syrups, tablets, vinegars
- Topical; baths, creams, salves, poultices, peri-wash, oils, floral water
- Aromatherapy; essential oils topically

# Essential Oils in Pregnancy

For Topical Application

Clary Sage EO

Lavender EO

Peppermint EO

Rosemary EO

# Lavender Essential Oil

- Botanical: lavender angustifolia or officinale
- Parts used: flowers
- Actions: antimicrobial, analgesic, anti-inflammatory, GI relaxant, immune system stimulant, vulnerary, reduction of scar tissue, anti-depressant, carminative
- Indications: colic and flatulence, headaches, wound healing , prevention & treatment of infection
- Dose: Can be put on neat to the skin



# Rosemary Essential Oil

- Botanical Name: *Rosmarinus officinalis*
- Parts Used: flowering tops/leaves
- Actions: Increase circulation, reduces muscle pain, improves mood, stimulates nervous system and adrenals
- Indications: headaches, fatigue, depression
- C/I: high blood pressure

# Rosemary





# Case-Headaches in Pregnancy

- 28 year old G1 P0
  - Paged with acute onset of headache at 15 wks
    - client had taken two tylenol with no change
    - BP normal; well hydrated
    - Location: eyes/back of neck
    - Tx: steam with rosemary herb from her garden resolved the headache within minutes



# **\_Herbal Beverage and Tonic Teas used in Pregnancy**

- Anise or Fennel Seeds: Aromatic digestive herb, antispasmodic, carminative, expectorant, anti-microbial, and galactagogue
- Burdock root: Alterative, tonic, lymphatic, hepatic
- Chamomile flowers: Anti-nausea, anti-inflammatory, anti- bacterial, anti-spasmodic, carminative, relaxant, vulnerary
- Lemon Balm whole herb: Carminative, relaxant, antispasmodic, diaphoretic, anti-viral, anti-microbial, stimulates limbic center in the brain
- Nettles leaves: astringent, galactagogue, tonic, diuretic, circulatory stimulate, high in Vt C, calcium, Iron, silica

# Herbal Beverage and Tonic Teas used in Pregnancy

- Oat Grass, seeds and grass: Nerve tonic, cardiac tonic, antidepressant, high In many minerals
- Raspberry or Strawberry Leaves: parturient, astringent, anti-spasmodic, uterine tonic
- Red Clover flowers: alterative, expectorant, anti-Inflammatory, lymphatic, high In minerals
- Spearmint, leaves carminative, anti-nausea, diaphoretic, anti-spasmodic
- Vervain, whole herb: anti-spasmodic, nervine, alterative, galactagogue, relaxant

# Raspberry Leaf

- Botanical Name: *Rubus idaeus*
- Part Used: leaf
- Dose: 30 to 100 ml/week(tincture); 1.2-2.4 gr/daily (tablets)
- Actions: astringent, partus prepartor, anti-diarrhea
- Indications: prepare for labour, dysmenorrhea, mouth ulcers, diarrhea, uterine prolapse, uterine hemorrhage and GI bleeding
- Use in 2nd and 3rd trimester



# Rubus Idaeus



# Red Raspberry Leaf

- 192 low risk nullips received 1.2 g BID of raspberry leaf vs placebo starting at the 32nd wk
- No change in 1st stage of labor
- Shorter second stage by 10 min and less forceps deliveries (19% vs 30%) observed in tx group
- Note: Researchers noted taking for longer duration and higher dose (12g-24g of dried herb is therapeutic range) with no increase in birth defects noted

# Pregnancy Tonic Tea

- Raspberry Leaf
- Nettle leaf
- Rose petals
- Spearmint leaf
- Anise Seed

Mix 15 grams of each in a large glass jar and mix well. Use 1-2 tsp per cup boiling water steep 1-3 minutes, strain, and drink



# Herbal Punch

**Blend 1/2 oz of each of the following herbs in a large jar:**

- Chamomile flowers
- Elder flowers
- Lemon balm leaf
- Nettle herb
- Spearmint leaf
- Strawberry leaf

Use 2 tbsp herbal tea mix to 16 oz of boiling water steep 1-3 minutes, strain, and mix with 1 cups of organic juice

Drink as a beverage 1-2 times daily

Useful for colds and flu, sore throat, cough, upset tummy

# Beautiful Belly Butter

- 2oz @of shea butter and coco butter
- 1oz apricot kernel oil (or herb infused oil)
- 1/2oz sea buckthorn oil

Soften the butter so the oils may be mixed well into the butters. Store in airtight tubs

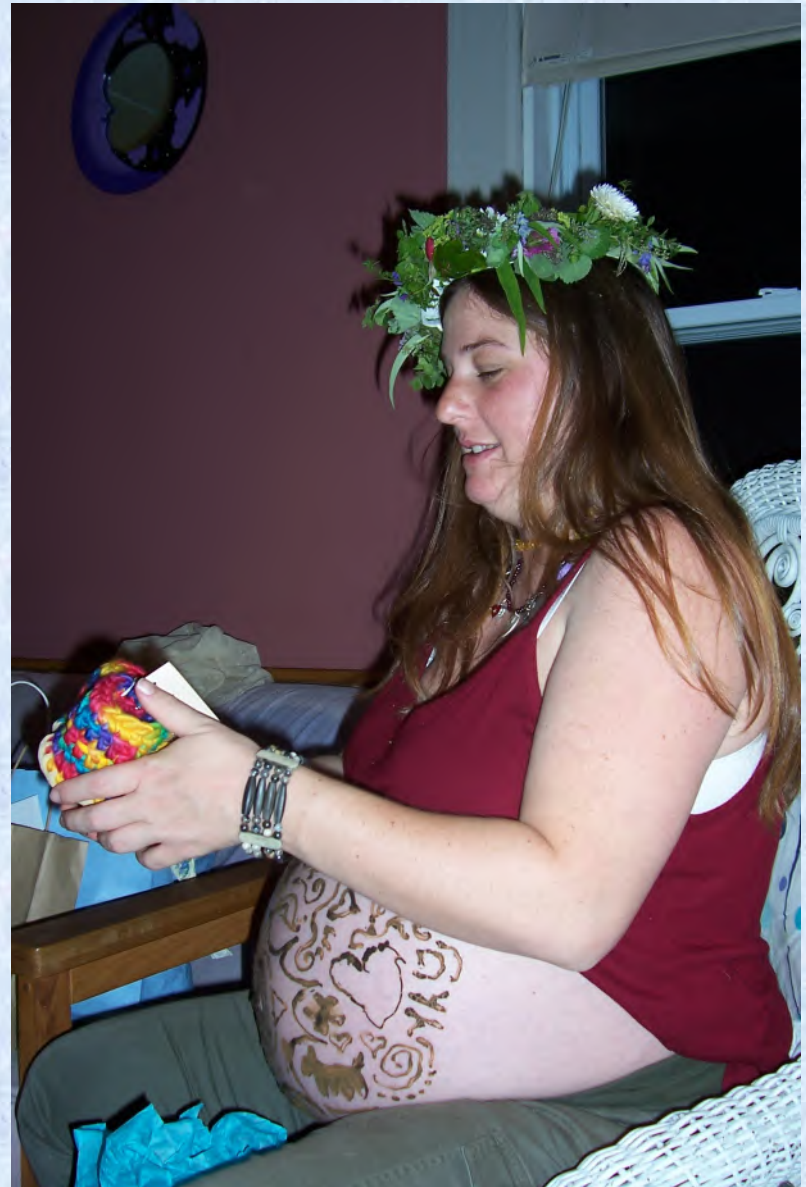
Apply to belly, breasts, or perineum to keep skin healthy, hydrated, stretchy, and radiant!

# The seeds of health and wellbeing...

## .... begin with a healthy mother and gestational period

Maternal uterine environment influences  
the growing fetus's health on several levels;

- physical development
- emotional wellbeing
- psychological health





# Cultivating Healthy Beginnings

- Maternal Uterine Environment
- Maternal Chronic Stress Connection
- Maternal Infant Digestive System
- Maternal Infant Immune Connection



***Children begin to develop preferences to flavors, music, voices and even stories while in the mother's womb***

# The Peri-natal Period and Baby's Emotional Wellbeing

- New research suggests fetal consciousness exists.
- Verny's observations of fetal emotional response stimulated by the mothers feelings and the maternal hormonal response to the feeling.
- Stress hormones are shared with the fetus.

# **Drs Klein and Taylor's “Tend and Befriend” Notion**

- Social ties reduce risk of disease
- Lowers blood pressure, heart rate, and cholesterol
- Friends help to improve longevity and quality of live
- Reducing stress without removing themselves from the community

Taylor, S. E., Klein, L.C., et al, *Female Responses to Stress: Tend and Befriend, Not Fight or Flight*” Psychol Rev, 107(3):410-429, 2002



# Women De-stress Best by:

- Cooking, food, social meals
- Caring for others and self
- Warmth, relaxing baths
- Sewing, quilting and knitting circles
- Women's groups and gatherings
- Decorating the home
- Physical touch, sex, cuddling, eye contact



# CNS Herbs

- *Avena sativa* – milky oats
- *Lavendula officinalis*- lavender flowers
- *Melissa officinalis* – lemon balm herb
- *Rosa speices* – rose petals
- *Scutallaria officinalis*- skullcap herb
- *Valeriana officinalis*- valerian root
- *Viburnum opulus* or *prunifolium*- cramp bark or black haw bark





# Cultivating Healthy Beginnings

## Maternal Clinical Risks/Signs

- ❖ History of yeast infections, intestinal dysbiosis, IBS, insufficient digestive enzymes, low fiber diet, constipation
- ❖ Chronic stress, chronic inflammation, environmental toxic exposure, zinc deficiency, medications, allergies
- ❖ Immune Overload – allergen exposure, leaky gut, environmental toxic exposure, chronic stress, low SIgA



# Cultivating Healthy Beginnings

## Infant Connection

- Immature digestive system
- Establishment of healthy balanced microbiota
- Immune system immaturity and hyper-exposure in utero
- Vaginal birth verse C-section
- Breastfeeding or formula feeding

# Getting a Good Start

- Infants have a sterile gut leaving the womb
- Exposed to bacteria via birth canal, skin, and meconium
- Bifidobacteria develops rapidly in the first 3 days.

# Role of Intestinal Microbiota

- **Lactobacillus, Bifidobacteria species play an important role**
  - Digestive function
  - Fermentation of substrates
  - Competes with other bacteria
  - Assimilation and absorption of vital nutrients
  - Immune System – Innate & Adaptive
  - GALT- gut associated lymphoid tissue
  - Mucosal immunity, SIgA, Barrier function (mucin)
  - Healthy skin



# Insights into the Microbiota

- Up to 2 yrs to complete colonization of microbiota
- Antibiotics disrupt normal microbiota growth and colonization

“It is estimated that a course of antibiotics may disrupt normal microbiota colonization for up to three months post use.”

# Prevention of Atopic Disease

- A Finnish study; *L. rhamnosus* GG
- Reducing atopic disease in infants
- Administer to the pregnant mother in third trimester & breastfeeding and the infant.
- Occurrence of atopic disease dropped 50% in the probiotic group
- Stayed low for full 4 years w/o further use of probiotics

Kalliomaki M et al: Probiotics and prevention of atopic disease: 4 year follow up of randomized placebo-controlled trial, *Lancet* 361:1896-1871, 2003

# Probiotics

- Observational study 1958 pregnancies
- Vaginal samples 6-22 weeks of gestation
  - Lactobacilli more likely absent in those who delivered pre-term
  - 28% of women delivered <33 weeks lacked vaginal lactobacilli
  - 5% who delivered at term lacked vaginal lactobacilli
  - Absence of lactobacilli identified as independent risk factor
- PMID: 12530101



# Specific Indications for Probiotics during Pregnancy

- Antibiotic Associated Diarrhea
  - *Saccharomyces boulardii* – 20 billion TID
- Traveler's Diarrhea
  - *L. rhamnosus* gg
- IBS- *Lactobacillus* and *bifidobacterium* species
- Lactose Intolerance
- Constipation of Pregnancy - *bifidobacteria*
- Viral Gastroenteritis - shortens length and severity

# Probiotics in Pregnancy

Pregnant and nursing mothers

- 50 to 200 billion daily after food
- Bifidobacteria strains along with adult strains
- Lactobacillus species including rhamnosus(GG), acidophilus, reuteri



# Common Complaints Associated with Pregnancy

- Nausea and vomiting
- Heartburn
- Constipation
- Varicose veins
- Hemorrhoids
- Vaginitis - Candida & BV





# Botanical Formula for Nausea/ Vomiting/Morning Sickness

- Filipendula ulmaria/ Meadowsweet
- Matricaria recutita/ Chamomile
- Pimpinella anisum/ Anise Seed

Mix 9 mls of each in a 1 oz bottle with

- Zingiber officinale/ Ginger -25 drops

Use 10-15 drops directly in the mouth or in 1oz of warm water 4-6 times daily

# Anise

## *Pimpinella anisum*



# Ginger Trials

- Double blind, randomized, cross over, placebo controlled trial
- 30 women with hyperemesis gravidarum
- 250 mg of ginger rhizome 4x/day
- Significantly more effective on symptoms versus placebo

European J of Obstet, Gyn, and Repro Biology, 38: 19-24, 1990

- Double blind study with
- 70 Thai women with nausea & vomiting
- 250 mg QID
- 80% reduction in vomiting and significant improvement in nausea

*Obstet Gynecol* 2001; **97**: 577-582



# Ginger Trial

- Randomized controlled trial
- 120 women <20 wks pregnant w/ morning sickness
- 1500 mg x 4 days of ginger
- significant improvements in nausea and retching
- post delivery follow up revealed birth weights, gestational age, and APGAR scores within the normal limits
- congenital abnormalities were of those of the general population born at the time of the study

- *Aust N Z Obstet Gynecol 2003; 43:139-144*

# Heartburn in Pregnancy

- Chew small amounts of anise, fennel, or dill seed
- DGL powder or capsules; with meals/prn
- Chewable Papaya enzymes/digestive plant enzymes before meals
- Probiotics mix strains, 25 billion after meals TID
- Eat small meals; avoid laying down up to one hour after meals
- Avoid greasy, spicy foods, processed grain products

# Constipation

- Due to:
  - Decreased motility (progesterone)
  - Compression of intestines
- Therapeutics
  - Water
  - Exercise
  - Prune, blueberry, purple grape juice
  - Electrolytes
  - Magnesium citrate 150-300 mg 1-2 times daily



# Constipation

- Therapeutics continued
  - Soak: prunes, raisins, apricots, pumpkin seeds in water, puree and add to foods
  - Fiber: legumes, fruits, veggies, oat bran
  - Stimulate bile secretion: lemon juice, artichokes, beets, raspberry vinegar
  - 1-3tsp organic flax or hemp oil
  - Avoid constipating foods: meat, white flour, excessive dairy, pizza, bananas

# Constipation

Avoid botanical medicines that act as strong laxatives, purgatives, or cathartics

Consider these herbal actions;

Aperative - dandelion root, turmeric

Bulking Agents-Flax, Psyllium, or Chia seeds

Autonomic Visceral Relaxants - Catnip, Lemon Balm, or Cramp Bark

Use as tea, tincture, or powder several times daily

# Varicosity – leg & labia

- Herbs high in bioflavonoids which act to support connective tissue such as hawthorne berry, blueberry bilberry, raspberry & cranberry
- Foods high in flavonoid include carrots, squash, beets, plums, cherries, grapes, and most yellow, orange or red fruits and vegetables
- Astringent herbs such as witch hazel, oak bark, turmeric, or yarrow flowers can be used for sitz bathing or as cold fomentations applied daily to the area



# Hemorrhoids

Milk thistle seed helps with liver function and to decrease the pressure in the small vessels of the portal circulation

Use the ground seed in hot cereal, as a tea, in a tincture dosed at 3mls BID, or capsules dosed at 150 mg BID

Astringent herbs can be used as a fomentation, applied cold or frozen on a gauze and applied consider witch hazel, oak bark, raspberry leaf, or yarrow flowers

# Hemorrhoids

## Grated Potato and Slippery Elm Poultice

- ❖ 1 medium potato grated
- ❖ 2-3 tsp slippery elm powder
- ❖ Mix well, form into small patty and place on area for 10-15 minutes, 1-3 times a day.
- ❖ ***This may be used on sore or cracked nipples as well***

# Vaginitis of Pregnancy

- Bentonite Clay- rinse, dusting powder
- Vaginal Steaming – herbs in steam bowl chair
  - rose, lavender, yarrow, myrrh, calendula, tea tree
- Iodine Solution as rinse or low douche
- Green tea infusion as peri-rinse
- Licorice Root - anti-fungal & demulcent
  - rinse, gel, sitz, low douche
- Oral Probiotics - L. acidophilus, L. rhamnosus GR/GG, L. fermentum dose at 50-100billion daily, topical vaginal application



# Complaints in the Prenatal Period

Vaginal bleeding/Threaten Miscarriages  
Colds, Flu, Fever, Cough, EENT  
Gestational Thrombocytopenia  
Insomnia  
Intrahepatic Cholestasis  
Prevention of Pre-term Labor  
Hypertension  
UTI



# First Trimester Vaginal Bleeding Threaten Miscarriage

Viburnum opulus/ Cramp bark

Viburnum prunifolium/ Black haw

Achillea / Yarrow flower

Rubus/ Red Raspberry

Withania/ Ashwaganda

Use 1-2 tsp in 1 cup water sip over an hour

Take up to 4 times a day

# Yarrow Flowers





# High Bush Cranberry/Cramp Bark



# Black Haw

## *Viburnum prunifolium*



# Colds and Flu

- Herbal tea made from red clover flowers, elder flowers, chamomile flowers, spearmint, anise seeds, and nettle leaves are taken several times a day hot
- Elder Berry Concentrate – 1 tbsp in 8 oz warm water
- Rose Hip SE - 1 tsp BID
- Echinacea used for the immune boosting action anti-inflammatory activity, and anti-microbial action
  - Tea; 1 tbsp rt/16 oz water, drink 1-3x /day
  - Tincture 1:3/5 use 2-5 mls / TID or QID
  - Capsules or tablets
  - Powder 1-2 grams in smoothies, applesauce or yogurt



# Cough

- ◆ **Onion Syrup** base for adding tinctures of other cough and flu herbs such as thyme, echinacea, linden flowers, wild cherry bark, or mullein.
- ◆ Add equal amounts of tinctured herb mix to onion syrup, such as 1/4 oz. thyme tincture and 1/4 oz. echinacea tincture to 1/2 oz. onion syrup.

## Instructions

- Layer 1-2 cups sugar and slices of 1 medium onion in a glass jar until full; let sit in a cool place for 1 to 2 days. Strain out onion and bottle in an amber jar. Store in refrigerator or in a cool place. Use ½ to 1 tsp. 3 times a day.

# Elder Berry



# Soothing Herbal Cough Syrup

- Combine equal parts:
  - Raspberry leaf
  - Licorice root
  - Cramp Bark
  - Shatavari
  - Mullein leaf
  - Marshmallow root
  - Garlic Syrup (optional) ½ part
  - Ginger Glycerite ½ part
  - Elder Berry Syrup 2 parts

Dose 1 tsp, 3 to 5 times daily



# Cardiovascular Herbs

- A: turmeric, garlic
- B1: passionflower, hawthorne, EPO
- B2: artichoke, dandelion, melissa, viburnum opulus
- B3: Leonurus

# Hawthorne Flower & Berry



# Blood Pressure Tincture for Pregnancy

- Viburnum Opulus
- Passiflora Incarnata
- Hawthorne Berries
- Taraxacum Leaf
- Melissa Officinalis
- Leonorus Cardiaca
- Equal parts of each
- Dose 1 tsp TID ac



# Hypertension Case

- 1st pregnancy (29 years of age)
  - Under care of RM
  - Normotensive until 38 weeks
  - PIH 140/90 at 39 weeks
  - ++swelling of hands/feet/face
  - -ve proteinuria
  - -ve blood work for pre-eclampsia
- Induced with cervidil at 39+5 for HTN
  - 36 hour labour
  - 3rd degree tear
  - 7.5 lb healthy baby girl

# Hypertension Case

- 2nd pregnancy (34 years of age)
  - Significant hx: 11 lbs above previous pre-pregnancy weight; 1/2 thyroid removed due to benign mass
  - Healthy pregnancy: tx for mild anemia
  - Previous hx of HTN; started on Ca/Mag at onset of pregnancy; along with standard PNV, EFA and folic acid

# Hypertension Case

- 2nd pregnancy (cont)
  - 14/01/07 Blood pressure 130/76 36 weeks; swelling of hands/feet;
  - began Dandelion juice 10 ml BID
  - 17/01/07: BP 118/76
  - 19/01/2007: Mother's cordial began
  - 21/01/2007; 140/76->128/76 (after lying left side); began bed rest 2 hours left lying BID



# Mother's Cordial

- Dr. Carl Phillip's formula
  - Mitchella 16 ml
  - Viburnum 7 ml
  - Cimicifuga 12 ml
  - Passiflora 120 drops
  - Gelsemium 30 drops
  - Distilled water 20 ml
    - 16 drops TID 36 weeks on to birth

# Dandelion Leaf (*Taraxacum officinale*)

- Diuretic effect
- Botanical diuretics act to lower blood pressure by reducing the amount of fluid in the bloodstream thus lowering the pressure in the veins.
- Dandelion also contains the mineral potassium which can be lost when using many prescription diuretics.



# Dandelion Leaf (*Taraxacum officinale*)

- Nutritionally Dense - Vitamins A, C, B complex, Calcium, Fiber, Iron, Magnesium, Manganese, Phosphorus, Potassium, Selenium, Silicon, Sodium, Zinc.
- Dose 3-5 mls 1:5 extract three times daily
  - Infusion/Juice/Leafy Green Vegetable
- Safety Issues – Generally considered safe
  - No known Toxicity, SE, or Drug Interaction
  - Traditional use in pregnancy/lactation



# Gestational Thrombocytopenia

- Approximately 5% of women
- Platelet count  $>150,000/\mu\text{L}$  and  $< 70,000/\mu\text{L}$
- GT characterized by:
  - 1) asymptomatic, mild thrombocytopenia
  - 2) with no past history of thrombocytopenia (except possibly during previous pregnancy)
  - 3) occurs during late gestation
  - 4) not associated with fetal thrombocytopenia like ITP
  - 5) that resolves spontaneously after delivery

# Gestational Thrombocytopenia

34 year, G2, P1 at 32 weeks presents with GT

Platelet count 76,000/ $\mu$ L

Therapeutics:

- Vitamin K - 5mg/ day

- Astragalus Root Capsules 300 mgs TID cc

- Shitaike Mushroom Capsules 300mg TID cc

- Probiotic Mix 50 billion BID pc

4 weeks duration repeat CBC, platelets 180,000/ $\mu$ L

Continue protocol reduces to once daily

# Intrahepatic Cholestasis

- Accumulation of bile in the liver due excessive levels of sex hormones
- Sx: cutaneous itching, jaundice or both
- Usually occurs in the last trimester and disappears 2 weeks postpartum
- Will resolve after delivery

## Therapeutics:

- milk thistle seed
- epsom salt or oatmeal baths
- chickweed and chamomile cream



# Milk Thistle



# Intrahepatic Cholestasis

- Milk Thistle Seed Extract
- Silymarin was safely used in pregnancy
- 6 women with intrahepatic cholestasis of pregnancy
- Dose of 210 mg three times daily.
- Duration of 15 days

*Hepatololgy, 8(5): 1356, 1988*



# Chamomile Cream

- Azulene compounds
- Partially dbl-blind randomized trial
- Half-side comparison w/0.5% hydrocortisone
- 2 week treatment duration

Outcome showed the Chamomile cream mildly superior to the 0.5% hydrocortisone or placebo





# UTI and Vaginitis of Pregnancy

- Increased risk during pregnancy
- BV and UTI can increase risk of premature contractions
- Metronidazole, clindamycin, and tinidazole are antibiotics that destroy some of the bacteria that cause symptoms of bacterial vaginosis.
- However, clindamycin also targets the *Lactobacillus* organisms that normally thrive in a healthy vaginal environment.

# UTI in Pregnancy

- Acceptable antibiotics for UTI in pregnant women include Cephalexin (Keflex), Erythromycin, Nitrofurantoin (Macrochantin), Amoxicillin-clavulanic acid (Augmentin)
- Oral and vaginal administration of certain probiotics for vaginitis. *L. acidophilus*, *L. rhamnosus*GR-1, *L. fermentum*RC-14\* *L. rhamnosus*GG
- UTI- high vaginal lactobacilli correlates to a lower incidence of infection.\*\*
- Fresh fruit, berry juice and fermented milk products containing probiotics decreases risk of reoccurrence of UTI\*\*

\*Reid,G et al, Oral use of *Lactobacillus* ....FEMS Immunology and Medical Microbiology 35:131, 2003

\*\*Kontiokari,T.J. et al, Dietary factors protecting women from UTI. Am J of Clin Nutr 77:600, 2003

# Cranberry

- Botanical Name: *Vaccinium macrocarpon*
- Part Used: fruit
- Dose: 10 to 20 gr/day (fresh weight, tablet)
- Actions: Astringent, bacteriostatic
- Indications:
  - Cystitis; best for recurrent cystitis
  - Gum and mouth health
  - Promotes microbiota colonization
- Major safety uses: warfarin; oxalate kidney stones



# Cranberry

- Daily Cranberry cocktail for prevention of asymptomatic bacteriuria in pregnancy: a Randomized controlled pilot study
  - Cranberry cocktail 3x/day
  - Cranberry cocktail 2x/day
  - Placebo 3x/day
- 57% reduction in asymptomatic bacteriuria; 41% in UTI in the multidosing cranberry group
- 40% withdrew because of GI upset
  - *J Urol* 2008 Oct; 180(4):`267-72

# Urinary Tract Infection

Avoid strong kidney Irritants such as juniper berry, thuja, or berberine (ok 3<sup>rd</sup> tri) containing herbs

Essential oil high plants in 2<sup>nd</sup>/3<sup>rd</sup> tri –thyme or garlic

Demulcents & mucus membrane toners:

- Corn silk (*Zea mays*)

- Cleavers (*Galium aparine*)

- Marshmallow Root(*Althea off.*)

Urinary astringents:

- Horsetail (*Equisetum spp.*)

- Squaw vine (*Mithcella repens*)

- Uva ursi (*Arctostaphylus uva ursi*) **Not in 1<sup>st</sup> trimester**

# Case UTI

- G3 P2 26 year old
  - Hx of 7 UTI in 2nd pregnancy; all tx with antibiotics
  - Advised increase dark pigmented berries and yogurt
  - Berry syrup with cranberry 1 tsp BID
  - Acidophilus 25 billion/1 cap BID
  - No UTI for duration of 3rd pregnancy



# Prevention of Pre-term Labor

Mix equal part of each tincture

- *Lobelia inflata*
- *Passiflora incarnate*
- *Piscidia erythrina*
- *Viburnum opulus*



Dose @ 20 to 60 drops 1 to 5 times daily

Herbs are dosed according to severity of preterm contraction. Often more is needed at the onset of use and after several days one can settle into a more personal dose for the woman

# Insomnia

- Due to psychological factors, nocturia, muscoskeletal discomfort, adrenal issues, unstable blood sugar
- Treatment:
  - CNS Herbal Sleep Aids
  - Adaptogens: withania, elethrococcus, Schizandra berries
  - Rhodiola – 600 mg dose in the evening
  - Seriphos – 2 dinner and bed

# CNS Herbal Sleep Aids

- Avena sativa – Milky oats
- Chamomile Flowers
- Hops/ Humulus lupulus
- Lemon balm
- Hypericum-St John's Wort
- Lavendula officinalis- Lavender flowers
- Nepta cateria/catnip herb
- Passiflora- Passion flower
- Rosa spp – rose petals
- Scutallaria officinalis- skullcap herb
- Valeriana officinalis- valerian root





# ***Rose Syrup – no alcohol***

- 2 cup raw sugar dissolved into 3 cups of hot water
- Collect fresh rose petal in the AM still wet w/dew

Place 3 cups in a glass bowl cover with warm sugar water so all the petals are covered. Let stand with the bowl covered for 5 hours. Strain, store in refrigerator



## ***Rose Syrup – alcohol base***

- 1 cup raw sugar dissolved in 2 cups of hot water
- 1cup vodka
- 3 cups freshly picked rose petals
- Mix warm sugar water and vodka in container, place petals in a glass jar and cover with the warm liquid. Let stand overnight, strain, and bottle

### **Sources:**

- Syrup of Rose- Avena Botanicals 1-207-594-0694
- Tincture of Rosa dameska - [www.avicennananatural.com](http://www.avicennananatural.com)

# Pregnancy Term Issues

- Application of Partus Preparatory Herbs
- GBS
- Post Dates
- Immediate Postpartum
  - PPH
  - Retained placenta
  - Afterpains





# Mother's Cordial

## Late Pregnancy Formula

- These herbs are given in the last 4 weeks of pregnancy to tone and aid the uterus in preparation for delivery.
- They encourage softening of the cervix and relaxation of the pelvic tissues.
- They works on the muscular layer of the uterus to aid in making the contractions productive and to support contracting down of the postpartum uterus, thus decreasing the risk of postpartum bleeding.

# Mother's Cordial

## Late Pregnancy Formula

- *Caulophyllum thalictroides*/ Blue Cohosh
- *Mitchella repens*/ Squaw Vine
- *Chamaelirium luteum*/ False Unicorn Root
- *Viburnum opulus* & *prunifolium*/ Cramp Bark, Black Haw
- *Verbena* spp/ Blue Vervain
- Ginger root

Commercial formula available as cordials, tincture, and mother tincture depending on the company. Adjust dosing according to herbal preparation directions

# Mother's Cordial Too

- Dr. Carl Phillip's formula
  - Mitchella 16 ml
  - Viburnum 7 ml
  - Cimicifuga 12 ml
  - Passiflora 120 drops
  - Gelsemium 30 drops
  - Distilled water 20 ml

16 drops TID 36 weeks on to birth



# GBS Therapeutics

- Swab at 35 weeks or earlier if hx; tx for 2 weeks then re-swab; continue protocol x 1 more week post swab
- TX strategy
- Immune modulation if chronic UTI/vaginal infections/frequent URI
- Antibacterial
- Oral - garlic, high polyphenol foods, probiotics, ginger
- Vaginally
  - Garlic, myrrh, goldenseal, oregon grape, oregano, thyme, usnea, grapefruit seed
- Vaginal Anti-inflammatory/vulnerary
  - Marshmallow, Calendula, Comfrey, Sea Buckthorn, Licorice

# GBS Therapeutics

- Vaginal Astringent for tissue integrity, anti-bacterial, anti-inflammatory
  - Yarrow, Witch hazel, Geranium, Red Clover
- Use herbal suppository, capsule, or oil at night
- Perineal wash at every urination and stool
- Probiotics
  - Vaginal suppository in am or peri-rinse
  - Probiotics orally 50 billion TID of mix strains including Lacto GG, L. acid, and bifidobacterium
  - Grapefruit seed extract or other antimicrobial herbs

# GBS Therapeutics

## ***Sample protocol for vaginal suppository***

- 5 nights/week for 3 weeks
- 1/2 cup each of melted coconut oil & cocoa butter add:
  - 1 tbsp calendula oil
  - 1 tsp of garlic oil
  - 1 tsp of sea buckthorn oil
  - 20 drops @ of rosemary, lavender, thyme essential oils
  - 2 tbsp goldenseal powder (hydrastis canadensis)
  - 1 tbsp of marshmallow powder (althea officinalis)
  - 1 tbsp myrrh powder (commiphora mol mol)

Mix well, let cool to where suppository can be formed by rolling or use a mold and pour in while hot. Store in cool place



# Post Dates & Induction

- Encourage nipple stimulation, intercourse
- Sweeping the membranes with Evening Primrose Oil x 3 days at 41 weeks

## Clary Sage/*Salvia sclarea*

- Parts used: Essential oil of flowering tops & leaves
- Actions: antispasmodic, analgesic, tone & stimulate uterus, nervous system relaxant
- Indications: Induction of labor, strengthen contractions, nervousness, pain
- Dose: 10 drops in 1 oz carrier oil massaged on abdomen 2x/day to induce labor
- Avoid until early labor

# Castor Bean Oil

- 103 singleton pregnancies at 40-42 weeks; membranes intact
- One group took a single dose of 60 ml of castor oil and other group received no tx
- 57.7% began active labor in 24 hours and 4.2% in control
- Similar meconium staining, birth weight and mode of delivery in both groups

# Post Dates & Induction

- Sweep membranes with Evening Primrose Oil x 3 days at 41 weeks  
Use an infused oil of lobelia or gelsemium by steeping one ounce of herb ground to a coarse powder in 4 oz of EPO for 7 days in a warm dark place, strain, store in a dark bottle and cool place
- If ripe cervix use tincture of equal parts caulophyllum, viscum, and gossypium herbaceum, use ½ tsp every 2 hours, 5 doses / day max
- If unripe cervix use cervical ripening herbs in a mother's cordial base black cohosh, gelsemium, and lobelia 2:1:1



# Retained placenta

- Angelica archangelica Root
- Black Haw/ Viburnum p.

Use ½ tsp tincture each in a little water, repeat dose in 15 minutes if needed and one more time after that. If no placenta shed after 30 minutes make other plans.

# Angelica





# The 4<sup>th</sup> Trimester Postpartum

## Post-Birth Issues

- Healing tears or episiotomies
- Hemorrhoids
- Constipation
- After pains



Lactation and Botanical Galactagogues



# Healing the Perineum

## Stretches, Tears, or Episiotomies

### **Fomentation for the Postpartum Perineum**

Calendula, yarrow, and lavender flowers

Comfrey and rosemary leaves

- Combine ½ cup of each herb in a large glass jar, mix well and cover tightly
- Use 1/2 cup of herbal mix to one quart of boiling water, cover and steep 30 minutes. Use as a sitz bath or in a peri-bottle as a perineal wash for cleaning after urination or sutures areas. Use daily for the first seven days of postpartum

# Healing the Perineum

## Stretches, Tears, or Episiotomies

- Calendula flowers – anti-microbial, vulnerary and anti-inflammatory action
- Comfrey leaf/root – contains a substance that increases cell proliferation, leading to increased tissue repair and growth, acts as an astringent, emollient, and an anti-inflammatory
- Yarrow flowers – effective botanical anti-inflammatory, astringent, anti-microbial, and vulnerary
- Rosemary Leaves – anti-septic, astringent, and circulatory stimulant
- Lavender flowers- bring relaxing properties to the muscles and nervous tissue, act to diminish pain and discomfort , contain large amount of volatile oils which act as antiseptics, anti-microbials, and analgesics. Clinical trials are shown that lavender added to sitz baths is most effective between the third and five day postpartum

# Constipation

- Pumpkin, fig, hemp oil puree 2-3 tbsp/day
  - Add 1 tbsp hemp oil to ½ cup cooked pureed organic pumpkin with 4-6 soaked pureed figs
- Herbal GI Relaxant Tea
  - Chamomile flowers, fennel seeds, lemon balm, catnip, cramp bark, and spearmint
  - Steep 1 tbsp in 1 cup boiling water for several minutes, add 2 ounces blueberry juice,
  - Drink 1-3 times daily



# Hemorrhoids

- Herbal Frozen Pads- witch hazel, rose water, lavender flower tea, calendula flower tea
- Ointments of astringent herbs
- Grated Potato Poultice
- Oral Support for small blood vessels, liver, and rectal tissue
  - High polyphenol herbs and superfoods
  - Lactation friendly liver herbs- artichoke, milk thistle, blessed thistle

# Hemorrhoids

## Grated Potato and Slippery Elm Poultice

- ❖ 1 medium potato grated
- ❖ 2-3 tsp slippery elm powder
- ❖ Mix well, form into small patty and place on area for 10-15 minutes, 1-3 times a day.
- ❖ ***This may be used on sore or cracked nipples as well***

# Uterine After Pains

- Keep bladder emptied
- Heat/Pressure to lower abdomen
- Uterine Antispasmodics/Analgesics
  - Nepeta cataria/catnip herb
  - Rosa spp – rose petals
  - Scutellaria officinalis- skullcap herb
  - Valeriana officinalis- valerian root
  - Viburnum opulus or prunifolium- cramp bark or black haw bark



# Uterine After Pains II

- Uterine Antispasmodics/Analgesics
  - Senecio aureus/life root or golden root
    - Tincture 1:5; 1-2mls in few oz warm water TID-QID
    - In formula with \*
  - Erigeron spp/Cinnamon Compound (Herb Pharm)
    - 10-20 drops in few oz warm water
    - Dose TID - QID

# Uterine After Pains II

## UAP Formula

- Rose glycerite 30mls
- Catnip tincture 20mls
- Cramp bark tincture 20mls
- Senecio tincture 10mls
- Ginger glycerite 10mls
- Cinnamon glycerite 10mls

Use ½ to 1 tsp in warm water TID- QID

# Herbal Salve used for Tender Cracked Nipples

- Althea root or Slippery elm
- Chickweed or witch hazel
- Calendula, Chamomile or Yarrow flowers
- Make an oil or salve from a combination of the above herbs, use several times a day after nursing baby. Wipe gently with a dry cloth before nursing baby again



# Calendula



# The 4<sup>th</sup> Trimester Postpartum

- Postpartum Hemorrhage (PPH)
- Excessive Bleeding
- Uterine infection
- Postpartum depression
- Anxiety





# Prevention of PPH

- Hx of previous PPH in previous births, prenatal protocol can include
  - CBC with platelets, ferritin
    - Bleeding increases with anemia
    - Low platelets increase risk of bleeding; tx with high quality protein
  - Improve connective tissue health and smooth muscle of the blood vessels
    - Bioflavonoids and vitamin C (500 mg of each)
    - Berries ( 1 cup frozen blueberries/day)



# Case- Postpartum Hemorrhage (PPH)

- 34 year old female G3 P2; 24 weeks pregnant
  - CC1: varicosities of vulva and lower extremities
    - Current tx: Pressure stockings
  - CC2 Prevention of hemorrhage as 1000cc loss in previous delivery
  - Relative hx
    - Restless legs <pm
    - Unstable pelvic joints tx: core stabilizing activities
    - Ligament and tendon injuries due to repetitive strain
    - Diet low in veggies & berries

# Case- Postpartum Hemorrhage

- Lab:
  - CBC
    - Hemoglobin 124
    - Platelets 156 (optimum 200)
- PE
  - Pale mucus membranes
  - Dry bumps on back of arms bilateral
  - Spider veins in lower extremities including medial left foot; 2 large varicosities behind each knee ; mild right vulvar varicosity with swelling

# Case- Postpartum Hemorrhage

- Plan
  - Dark pigmented berries 1 cup/day
  - Increase veggies 4 c/day (dark leafy greens)
  - Berry syrup 3oz: rosehip SE 1 oz; 1 tsp BID
  - Ligaplex 2 caps ac
  - Cod liver oil 1 tsp/day



# Shepherd's Purse





# Ginger

## *Zingiber officinale*



# Case- Postpartum Hemorrhage

- Plan 32 weeks
  - Raspberry leaf: nutrient tea 1 T/cup; steep overnight 3 cups/day
  - Mother's cordial 16 drops TID
  - Continue Berry syrup
  - Geranium Combo: 15 drops every 2 hours while in labor
  - No postpartum hemorrhage; minimal blood loss



# Excessive or Extended Duration of Postpartum Bleed

- *Mitchella repens* / Squaw Vine
- Nettle leaf
- Raspberry leaf
- Yarrow Flower
- Hawthorn Berries
- *Rhodiola* Root
- *Geranium maculata* /Cranesbill Root

Use ½ to 1 tsp BID or TID in warm water

# Postpartum Uterine Infection

- Bromelain-2400GDU/g 200-500mg TID
- Andrographis Tablet 150mg( SE)@ 1-2 TID
- Tincture ½ tsp 6x/day
  - Echinacea 20mls
  - Usnea 20mls
  - Mitchella/ Squaw Vine 20mls
  - Baptisa/ Wild Indigo 20 mls
  - Yarrow flowers 15mls
  - Rosemary 15 mls
  - Ginger glycerite 10mls

# Anxiety

- Ensure adequate sleep
- Practice mindfulness
- Aromatherapy: Lavender, Rose, and Siberian Fir
- Nervines: lemon balm, lavender, oats, passion flower, rose, reishi mushroom
- Adrenal support: Holy Basil , Withania
- Amino acids
  - L-theonine from green tea – 150mg/dose
  - Seriphos 2 caps TID at indicated times



# Anxiety

- Withania
- Vervain
- Melissa
- Motherwort
- Lavender Flowers
- Holy Basil

Mix 20 mls @ in a 120ml bottle, use ½ to  
1 tsp TID cc

# Joy of the Garden





# Depression

- St. John's Wort as tea, capsules, or tincture
- Aromatic Herbs and EO
- Omega-3 supplementation, 500 mg provided a reduction of 50 percent in postpartum depression symptoms
- Iron deficiency linked with increased general & postpartum depression
- Adrenal support e.g. Rhodiola, Schisandra





# Herbal Tea for Depression

- Mix in a large jar 1 oz of each
  - Avena
  - Lemon Balm
  - Linden Flowers
  - Rose Petals
  - Vervain



Use 1 tsp herbal mix to 1 cup boiling water steep covered 1-3 minutes. Drink several times daily.  
A stronger tea may be made and added to the bath

# Lemon Balm





# Schisandra chinensis

- Symptomatic agent against astheno-depressive states independent of the nature of the disease
- Act to decrease fatigue, improve the general mood and appetite, and can be recommended as a tonic for healthy people in a state of fatigue
- Used in the treatment of psychoses as a stimulant without harmful side effects
- The curative effect of *S. chinensis* preparations is pronounced in cases of asthenic and depressive syndromes
- The combination of *S. chinensis* therapy with tranquilisers or anti-depressants eliminates the side effects of these drugs and allows them to be employed at optimal doses



# Schisandra chinensis

## Berry



### Dosing

- 3-10 mls/day 1:3 liquid extract
- 2-6g/day dry fruit
- *No negative effects were observed on the somatic state of patients*





Becoming a woman,  
you feel the moon  
Tug at your blood,  
And you begin to sense  
The mysteries of the  
new body.

John O'donohue

"To Bless the Space Between Us"