

Herbs in Pregnancy, Parturition & Postpartum

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Signs & Symptoms of Pregnancy

Possible signs:

Symptoms:

- * increased peeing
- * nausea
- * fatigue
- * food fads
- * changes in breasts - swollen and tender
- * woman may feel pregnant

Signs:

- * missed period
- * changes in colour of vaginal and cervical tissue
- * darkening of areola around nipple
- * more skin pigmentation such as moles and striae on breast

Signs & Symptoms of Pregnancy

- Probable signs of pregnancy:

Signs:

- * softening of uterus and cervix
- * enlarged uterus
- * intermittent painless contractions
- * urine and blood test for Human Chorionic Gonadotrophin (hCG)

Maternal Physiological Changes

REPRODUCTIVE SYSTEM

Breasts - The breast tissue increases in size because of hypertrophy of the alveoli. The nipple will also increase in size and the pigmentation of the areola becomes darker. Tenderness, tingling and increased visible veins occur due to increased blood supply. Colostrum can start being produced as early as the end of the first trimester.

Ovaries - For the first 7 weeks of pregnancy the corpus luteum is stimulated by hCG to produce progesterone to maintain the pregnancy. After this time the placenta takes over.

Maternal Physiological Changes

Uterus - The weight of the uterus increases by approximately 1000 grams. The uterus is made up of 3 muscles layers. The first layer is the longitudinal layer in the top 2/3 of the uterus and it is the contracting muscle. The second layer is the circular muscle layer with is in the bottem 1/3 of the uterus and it elongates in labour. The third layer is the diagonal muscle layer which surrounds the blood vessels and after delivery it clamps down and helps to prevent haemorrhages. The uterus forms the placenta which lasts for approximately 40 to 43 weeks only. The placenta transfers all the necessary ingredients to the baby and also produces four different hormones to sustain the pregnancy. The Human chorionic gonadotropin hormone promotes the growth of the corpus luteum which secretes estrogen and progesterone. The progesterone increases the hypertrophy of the endometrium, promotes the growth of some of the baby's tissues and organs and helps to develop the mum's breasts. The estrogen promotes the growth of some of the baby's tissues. The Human placental lactogen helps grow some of the baby's tissue, acts as an anti-diabetogenic substance, increases the amino acids to the baby and helps to develop the mum's breasts.

Cervix - By the 8 week of gestation the cervix softens while the glands around the cervix are stimulated to produce a mucous which plugs the way between the vagina and the uterus. This plug stays in place until the cervix starts to dilate near the delivery of the baby.

Vagina - The vagina becomes bluish in colour due to the increase blood flow to the area. The vagina wall thickens and the rugae become deeper to help to increase in size for the delivery of the baby.

Maternal Physiological Changes

LIVER

Due to the increased estrogen and progesterone levels the liver has more to try to deal with and may have a difficult time.

MUSCULOSKELETAL SYSTEM

There is increase joint laxity to allow the pelvis to widen for the growing baby. Other joints are also affected. The spine shifts position allowing for the baby to become the centre of gravity over the hips.

Maternal Physiological Changes

ENDOCRINE SYSTEM

Adrenal glands - ACTH decreases in the first trimester but increase for the second and third trimester. Cortisol and deoxycorticosterone increase in the third trimester. The cortisol is needed for the maturation of fetal lungs and production of surfactant. Aldosterone increases by the 15th week to protect against increased excretion of sodium effect of progesterone.

Thyroid - It increases in size due to increased vascularity and may feel softer to palpate. Thyroxine and the thyroid binding globulin levels increase by week 6 so that the plasma levels of free thyroxine are at the same ratio as before pregnancy.

Parathyroid glands - they stimulate intestinal absorption of calcium.

Pituitary gland - This gland may increase in size which may cause pressure to be applied to the optic chiasma that can cause a little vision disturbance. The anterior pituitary produces more prolactin. Endorphins are increased from both the pituitary and the hypothalamus.

METABOLISM

Albumin concentration decreases by 25 % because of the increased blood volume. Fasting glucose levels are lower because the baby needs a lot. Fat stores begin in mid pregnancy.

CARDIOVASCULAR SYSTEM

The heart rate increase by 20 % during pregnancy. Cardiac volume increases by 10 %. Cardiac output increases by 45 % by mid pregnancy and an additional 20 to 50 % during labour. Progesterone causes vasodilation which can cause headaches.

Maternal Physiological Changes

BLOOD CHANGES

The blood plasma volume increase by 45 % to ensure adequate circulation to the baby and as a safety measure to make sure that venous blood flow does not stagnate due to the pressures on the veins from the baby. This also can help during delivery in the case of blood loss.

RESPIRATORY SYSTEM

The diaphragm is displaced by 4 cm upward and the rib cage expands by 6 cm. Because of the increase in progesterone levels in the first trimester there is often an increase in respiration rate which can lead to shortness of breath.

URINARY SYSTEM

The glomerular filtration rate increases by 50 %. Progesterone increase sodium and water reabsorption. Amino acids and water soluble vitamins are lost at a higher rate during pregnancy.

INTEGUMENTARY SYSTEM

There is increased skin pigmentation such as on the breasts, linea nigra on the belly, vulva and face known as chloasma. Progesterone and estrogen stimulate melanocyte stimulating hormone. Increased blood flow to the skin causes increase heat and perspiration. There is also increased hair growth.

Pregnancy & Nutrition

The most important factor in pregnancy is nutrition. See westonaprice.org

Suggestions include:

- *Fat soluble vitamins, DHA for brain development
- *Folate to assist in growth and prevention of birth defects* a good prenatal supplement may be taken including 1 g of folic acid as folate (MTFHR)
- *Choline for lifelong increase in memory & attention
- *Glycine for growth
- * fresh fruits and vegetables, whole grains, unprocessed and unrefined foods, pastured meats if desired, and other sources of protein such as nuts and seeds
- * Organic if possible is best
- * fats, protein, carbohydrate
- * fats such as avocados, coconut oil, grass fed butter, olive oil
- * small frequent meals instead of 3 large meals
- * lots of fresh pure water away from meals - min. 8 glasses
- * avoid all drugs, preservatives and additives
- * avoid ingredients that you cannot even pronounce; these are usually not good!

Especially Important Nutrients/Foods

Vitamin A - a deficiency can lead to birth defects and decreased immune function in mother and baby, while too much can lead to CNS and renal damage. Vit. A is necessary for the differentiation and patterning of all the cells, tissues and organs within a developing body

Vitamin D - the requirement doubles in pregnancy to at least 400 to 600 IU per day; a deficiency can lead to poor bone formation, poor teeth, poor growth, cavities, rickets and loss of muscle tone;

Cod Liver Oil (have with a high-vitamin butter oil or ghee)
This is a simple method for ingesting vitamins A and D.

We want 20 000IU of vitamin A and 2000 IU of vitamin D per day.

Cod liver oil can be mixed with high vitamin butter oil as the two work synergistically.

High Vitamin Butter Oil - from Green Pasture 1-1.5 tsp/day

Grass fed Ghee - from Pure Indian Foods 1-1.5 tsp/day

Fermented Cod Liver oil - from Green Pasture 2 tsp/day

Nordic Naturals Arctic Cod Liver oil 4 tsp/day

Carlson Cod Liver Oil gems 2 caps 2x/day

Calcium

Calcium - 2.2 g of calcium/day for pregnancy and lactation; deficiency will lead to demineralization of bones of mother, unhealthy teeth and bones, spasms, pre-eclampsia and insomnia; helps to reduce risk of hypertension;

1 cup of milk 0.3 g of calcium

3.5 cups of milk 1g

1 cup of yogurt contains 0.3 g of calcium

3.5 ounces of hard cheese contain about 1 g of calcium.

other calcium sources include sea-food, broccoli, beet greens, nuts, beans, seeds (sesame, sunflower and pumpkin), cauliflower, figs and olives.

Bone broths, made with beef, chicken, or fish bones that have a bit of vinegar added when simmered, may also contain appreciable amounts of calcium.

Sea vegetables and different types of algae are also high in calcium.

Phosphorus

Phosphorus

It is needed for bone growth, organ function and cell growth. It is the second most abundant mineral in the body.

3.4 g are required for pregnancy and lactation

3.5 ounces of hard cheese provides .7 g

4 cups of milk provides 1 g

8 ounces of beef contains .5 g

8 ounces of salmon contains .8 g

8 ounces of cooked lentils contains .4 g

Fermented Foods

Lacto-Fermented Foods and Enzymes

- sauerkraut
- kim chi
- pickles
- beet kvass
- kefir
- yogurt
- kombucha

Nourishing Foods

Vegetables and fruit

eat lots and lots of vegetables and eat them with healthy fats.

Muscle meats – lamb, chicken, turkey, fish

A nourishing supply of fat and nutrients comes from eating animal flesh. Balance these meats with eating enough fats and vegetables.

Grains – Soak the grains in order to reduce the amount of phytic acid

B vitamins

B Vitamins - a deficiency can lead to nervousness, depression, anemia, decreased appetite and vaginal infections; these are important for the developing nervous system; Folic acid deficiency is associated with neural tube defects and for the mother can cause premature birth, premature separation of placenta, decreased immune system and post partum haemorrhage;

Folic acid (5-MTHF)

It is preferable to consume it in a form that is whole and unrefined, which means either from a whole food or a whole food supplement.

Foods high in folic acid are: liver and leafy green vegetables like spinach, turnip greens, cabbage, asparagus, collards and seaweed.

Vitamin B12

sources: mullusks (clams, oysters, mussels, etc.) liver and fish eggs, trout, salmon, yogurt and milk

Vitamins & Minerals

Vitamin C - helps to prevent pre-eclampsia, it supports the adrenal glands and helps to prevent premature rupturing of membranes when used with Vit. E; 1000 mg/ day and do not exceed 4 g in first trimester;

Iron - 30 to 60 mg/ day is required; a deficiency leads to anaemia and post partum haemorrhage; helps with restless leg, fatigue and constipation;

sources: goose and duck liver, beef, clams, oysters, turnip greens, spirulina

Vitamins & Minerals

Magnesium - necessary in calcium metabolism; decreases haemorrhages, retention of fluid, cervical problems and toxemia; 450 mg/day with 1000 mg calcium;
sources: clams, chard, spinach, buckwheat, rye, quinoa, fish sauce, sunflower seeds, pumpkin seeds, almonds, peanuts and black beans

Selenium - helps to prevent birth defects and metabolizing toxins, aids heart functions and helps to make red blood cells; 50 to 200 mcg/day;
sources: oysters, turkey giblets, Brazil nuts, whole chicken or turkey, beef, pork and lamb kidneys, tuna, anchovy, fish eggs, chicken, turkey and duck liver, cremini mushrooms

Chromium - helps insulin keep blood sugar levels stabilized; 50 to 200 mcg/day;
sources: broccoli, turkey thigh

Zinc - a deficiency is associated with poor growth, decreased immune system function and neural tube defects; helps with fatigue and cell growth and multiplication; 20 to 25 mg/day;
sources: oysters, pumpkin seeds, sesame seeds, beef, lamb, crab, chicken liver

Iodine - it is needed for infants thyroid gland development; a deficiency will lead to cretinism; 175 to 200 mcg/day;
sources: seaweed, cod, shrimp, haddock, perch, salmon

Vitamins & Minerals

Copper

sources: beef and lamb liver, oysters, clams, crab, cashews, sunflower seeds, pumpkin seeds, spirulina

Manganese

sources: pine nuts, mussels, pecans, macadamia nuts, pumpkin seeds, rye and sweet potatoes

Potassium

sources: quinoa, rye, prunes, bamboo shoots, dates, beet greens, sunflower seeds, cabbage, peanuts, acorns, Swiss chard, yam, octopus, salmon, clams, spinach, mustard greens and squash

Silicon

sources: barley, partially mixed rice, root vegetables, lettuce, tomatoes, onions, cucumbers, beets

Vitamins & Minerals

Vanadium

sources: buckwheat, rice, green beans, carrots, cabbage, mushrooms, dill seeds, black pepper, shellfish, radishes, olive oil, oysters and lobster

Nickel

sources: green leafy vegetables, lentils, peas, nuts, cherries, bananas, pears, asparagus

Vitamins & Minerals

Whole foods supplements

- Vitamin C – some natural sources are acerola berry or amalki fruit
- EPO, Black currant oil, Borage oil
- Spirulina
- Bee pollen
- Probiotics

Food to AVOID in pregnancy

- * Thalidomide is the only known substance to cause harm during a certain stage of development in every instance. But there are many other substances where there is an increased risk involved and should also be AVOIDED.
- * smoked or cured meat and fish if they contain sodium nitrite which gets converted in the stomach to nitrosamines, powerful carcinogens and possible teratogens; examples are bacon, ham, cured pork, sausage, dried beef, luncheon meats, salami and wieners; some alcoholic beverages contain sodium nitrite, therefore be sure to look for preservative free types; these should be avoided in pregnancy and lactation and only in moderation otherwise.
- * sugar substitutes such as saccharin and aspartame, have neither been proven conclusively safe during pregnancy nor has there been teratogenic effects in humans directly linked. There still runs a high risk of possible problems due to the fact alone that these are chemicals not natural substances and also the risk to PKU carrier mother's not being fully understood or known.
- * monosodium glutamate has caused brain damage in infant animals but no studies have been done to study infant humans. But the side effects that some people experience such as burning sensation in the back of the neck and forearms, tightness in the chest, and headaches should be enough for concern.

Foods to consume with caution

- * caffeine has caused birth defect in animal studies with inconclusive studies on humans; caffeine is also in part responsible for adrenal exhaustion on adults with unknown side effect on babies; due to the large stimulating effect that occurs on both the mother and baby, causes another whole problem of irritation and the inability to sleep, both of which are not needed;
- * processed foods usually contains preservatives, artificial colours and flavours and stabilizers and although none have been proven conclusively to be harmful to humans it is still a good idea to use this products with caution; these foods are also nutritionally inferior to whole, unrefined foods;

SUPPLEMENTS STRICTLY CONTRAINDICATED

- * Quercetin - can be mutagenic
- * Tryptophan – teratogen

EXERCISE & PREGNANCY

For proper cardiovascular fitness, you need to increase your heart rate to 140 beat per minute minus your age for about 20 to 30 minutes 3 to 4 times per week. This is considered to be moderate exercise.

Walking, swimming, yoga, bicycling, dancing (especially belly dancing) and jogging are good forms of exercise.

If a person is already on a regular exercise routine then it is fine for them to continue during pregnancy. It is important however to remember the following rules: keep your health practitioner informed of your exercise routine, avoid overheating, increase caloric intake by about 300 calories, increase water consumption to avoid dehydration, exercise only to the point where you can comfortably talk, stop if you feel any pain and do not exercise to exhaustion. Just remember that to use common sense and moderation. Certain activities where there is a possibility of a fall or trauma to the belly should be avoided. If a person is not on a regular exercise routine, it is best to start a few months preconception. But if that person is already pregnant than regular walking is probably all that should be done during this pregnancy.

Regular exercise in pregnancy will increase energy levels, increase self image, helps to keep unnecessary weight off, prepare for labour and helps with the postpartum recovery time.

Stretching and other passive exercises are of benefit in pregnancy to help with the changes taking place or with the labour and delivery. Some examples are: Kegels for strengthening perineum, belly breathing for relaxation and proper air flow to lungs, Cat/dog rock for straightening back muscles and abdomen muscles, Lotus sitting to stretch thigh and buttocks muscles and very importantly squatting to stretch and open pelvic muscles.

Lifestyle concerns

Kitty Litter Box - an organism from cat's feces can cause toxoplasmosis which can result in extensive brain damage in an unborn baby. Get someone else to clean out the litter box or be sure to wear gloves.

Smoking - it is associated with low-birth-weight babies, increased risk of miscarriage, increased incidence of sudden infant death syndrome, respiratory problems in children from secondary smoke, increased risk of death in-utero and the risk for the mother to develop many different types of cancers, cardiovascular diseases, etc.

Alcohol - it is a known teratogen, responsible for fetal alcohol syndrome, mental retardation, facial anomalies, low birth weights, behavioural problems, attention deficit disorders and hyperactivity. An occasional drink during pregnancy carries very little or no risk but no level of drinking is known to be safe.

Drugs - recreational, prescription or non-prescription can cause adverse effects on the baby. It is best to avoid all if possible especially for the first few days after conception which is particularly dangerous.

Pesticides, Fertilizers and other chemicals - there has been a lot of reports and evidence that these types of chemicals and other chemicals are very dangerous for a developing baby. It is best to try and eat as much organic food as possible, do not use lawn chemicals and be careful when filling your car and all other possible exposures to harmful substances.

HERBS & PREGNANCY

The body maintains a dynamic equilibrium called homoeostasis - it keeps the body's internal environment appropriate for its normal metabolic functions. The "permissible" variations from the norm are actually used by the body as the basis of the control mechanism by way of "feedback systems".

The body is self-regulating and is extremely important when we consider disease along with healing. When a break down of the body's homeostasis is implied, healing should be aimed at restoring the balance. The body's natural defences and self-righting mechanisms must be supported and encouraged - this is the role of herbal medicine.

This whole idea holds true even in pregnancy. One does not want to shock the mother's body (and the baby's) into healing using harsh drugs which forces the body in a certain direction. This route may be the fastest but some important steps may be missed.

Herbs to AVOID in Pregnancy from Aviva Romm

There are a few basic groups of herbs, which are clearly, and consistently contraindicated during pregnancy (See next 2 slides: Herb Categories to Avoid During Pregnancy).

One such group is those herbs containing pyrrolizidine alkaloids (PAs), as they are well-established to be causal in the etiology of veno-occlusive liver disease (VOD) in the fetus when the herb is ingested regularly by a pregnant woman.

Comfrey, coltsfoot, and borage are the main herbs that have been implicated, containing varying amounts of PAs. Petasites, now more commonly available for asthma treatment, also contains PAs. These herbs should therefore be avoided for internal use during pregnancy and should be used only short-term topically when there is broken skin.

Herbs which have strong hormonal properties as well as those which are known to promote menstruation (emmenagogues) are to be completely avoided; stimulating laxatives, anthelmintics and vermifuges, and herbs with a strong effect on the central nervous system are contraindicated, as is the internal use of all essential oils. Naturally any known toxic herbs should be avoided.

Herbs to AVOID in Pregnancy

Abortifacients & Emmenagogues	Essential Oils and Volatile Oils *	Teratogens	Alkaloids
<i>Tanacetum vulgare</i> <i>Thuja occidentalis</i> Safflower* <i>Sarothamnus scoparius</i> <i>Ruta graveolens</i> <i>Angelica archangelica</i> <i>Angelica sinensis</i> <i>Artemesia vulgaris</i> <i>Artemesia absinthium</i> <i>Mentha pulegium</i> <i>Achillea millefolium</i>	<i>Thuja occ.</i> <i>Tanacetum vulgare</i> <i>Oregano</i> * <i>Thyme</i> * <i>Salvia off.</i> <i>Mentha piperita</i> <i>Mentha pulegium</i> essential oils	Lupinus spp. Veratrum spp, Conium spp. Solanum spp. Nicotiana spp. Ferula spp. Trachymene spp. Datura Prunus spp. Sorghum Senecio spp.	<i>Symphytum off.*</i> <i>Tussilago farfara</i> <i>Borago off.</i> <i>Hydrastis canadensis*</i> <i>Berberis vulgaris</i> <i>Mahonia aquifolium*</i>

* Avoid internal use; external use may be acceptable under the guidance of an experienced botanical medicine practitioner.

Herbs to AVOID in Pregnancy

Stimulating Laxatives	Phytoestrogens	Nervous System Stimulants/Depressants
<i>Rhamnus purshiana</i> Castor oil <i>Rhamnus cathartica</i> Aloe* <i>Rheum palmatum</i>	<i>Humulus lupulus</i> <i>Trifolium pratense</i> Isoflavone extracts	<i>Ephedra vul.</i> <i>Paullinia cupana</i> Coffee <i>Piper methysticum</i>

* Avoid internal use; external use may be acceptable under the guidance of an experienced botanical medicine practitioner.

Herbs to use WITH CAUTION

Uterine stimulant herbs - *Caulophyllum thalictroides*,
Cimicifuga racemosa, *Mitchella repens*,
Achillea millifolium, *Angelica archangelica*,
Trillium erectum, *Aletris farinosa*, *Sassafras albicum*

Other herbs - *Leonurus cardiaca*,
Capsella bursa-pastoris, *Daucus carota*, *Origanum spp*,
Silybum marianum, *Rosmarinus off*,
Hypericum perforatum, *Marrubium vulgare*,
Aesculus hippocastanum, *Lycopus spp*, *Panax spp*,
Solanum spp, etc.

PREGNANCY:

First Trimester (weeks 1-12)

PHYSICAL CHANGES IN MOTHER

- * Nausea which can occur at any time of day;
- * Fatigue
- * Minimal weight gain or possible weight loss from nausea
- * Increased vaginal discharge
- * Breast changes such as swelling and tenderness
- * Increased urination from hormonal changes and pressure on bladder

PREGNANCY:

First Trimester (weeks 1-12)

DEVELOPING BABY DURING FIRST TRIMESTER

- * baby is 7 to 9 cm long
- * baby weighs 5 to 20 grams
- * sex can be distinguished
- * fingers and toes are distinct
- * baby teeth buds are present
- * baby responds to touch
- * baby can move all around but mother can not yet feel the movements
- * Lungs take in and out amniotic fluid practising breathing
- * baby urinates
- * All features are present and eyelids are fused
- * Head is disproportionately large being one half of body size

PREGNANCY:

First Trimester (weeks 1-12)

LIFESTYLE CONSIDERATIONS

- * Pregnancy is a time to stop and nurture yourself as well as the growing baby inside.
- * Be aware of your stress levels; avoid excessive stress if possible; Baby is acutely aware of your every emotion;
- * Lighten work load; even though it is just the start of the pregnancy, it is likely the most energy draining time.
- * Plan for regular naps. Even if feeling fine at the time it is important to not wear yourself down.
- * Take time with your baby; talk, sing, read and massage your baby.
- * Take time for relaxation such as visualization, meditation, deep breathing, etc.
- * Brush gums gently with a soft brush to help prevent gingivitis due to increased blood flow to the gums.

ADDITIONAL NUTRITIONAL CONSIDERATION FOR FIRST TRIMESTER

- * Only 3 to 6 pounds are the recommended weight gain for this trimester.
- * Caloric intake should only increase by 100 calories at this point.
- * Eat smaller more frequent meals to help with possible morning sickness and lower energy.
- * Be sure to drink plenty of water despite the need to pee all the time.

A whole body massage for relaxing the mother can be done during this trimester.

One just needs to be careful around the lower back and lower abdomen area to not stimulate this area. At this stage of the pregnancy the mother can still lay flat on her back.

PREGNANCY:

First Trimester (weeks 1-12)

During this trimester the most important uses of herbs are to tone and nourish the uterus as well as the mother and developing baby.

The herb that is often referred to as the universal herb of pregnancy, Red Raspberry Leaf (*Rubus idaeus*) is a most wonderful herb for both toning and nourishing. Although it is widely considered to be totally safe, it is best to get a real understanding of your client first with a very thorough case history to determine if there may be the slightest chance of a problem with this herb. If a problem does arise, herbs will likely be named as the culprit.

Rubus idaeus fol.

Rubus idaeus fol. Red Raspberry

Nutritive, Uterine toner, Astringent

- the alkaloid, fragrine, tones the pelvis muscles and the uterus;
- this herb contains Vit. C, Vit. E, Calcium, iron, Vit A, B-complex, phosphorus, potassium and many other minerals;
- helps to prevent miscarriages and haemorrhages, reduces pain in labour, increases milk production, helps the delivery of the placenta and increases the efficiency of the contractions;

Urtica dioica herba

Urtica dioica herba Nettle leaf

Nutritive, Astringent, Mild diuretic, Tonic,
Hypotensive

- is an excellent tonic and nutritive herb;
- Contains Vit A, C, D, K, calcium, potassium, iron, phosphorus, sulphur and many others;
- helps to restore and strengthen kidneys, decreases the pain of labour, prevents haemorrhages, reduces haemorrhoids and helps to produce a good supply of nourishing milk;

Medicago sativa

Medicago sativa Alfalfa

Nutritive, Anti-anaemic, Tonic

- nutritive herb;
- Contains Vit A, C, D, K, calcium, iron, potassium, chlorophyll, and many others;
- helps to support development of a strong amniotic sac, circulatory health and proper blood clotting to prevent postpartum haemorrhage, helps good supply of nourishing milk;

Althea off. fol.

Althea off. fol. Marshmallow leaf

Nutritive, Demulcent, Anti-inflammatory,
Mild diuretic

- Contains Vit A, calcium, zinc, iron, sodium, iodine, B-vitamins

Avena sativa

Avena sativa Oat straw

Nervine, Nutritive

- contains calcium, magnesium, protein, Vit. B1, B2, D, E, carotene, fat, silica, salt and other minerals;
- helps to sooth nerves from tension and stress, helps to relax the body and mind, very nutritive and soothing to the entire gastrointestinal tract;

Rosa canina

Rosa canina Rosehips

Nutritive

- Contains Vit. B2, C;
- A pleasant tasting herb that supports immunity and circulation;

Tea for Expectant Mothers & Motherhood

An infusion made from Red Raspberry with a combination of any one or both of the other two above herbs would be good for any expecting mother.

- 1 cup in the 1st trimester, 2 cups in the 2nd trimester, 3 cups in the 3rd trimester
- To draw out all of the nutritive minerals, steep overnight with 1 tsp. of apple cider vinegar. Add Blackstrap molasses to provide more minerals & iron.

PREGNANCY:

Second Trimester (weeks 13-27)

PHYSICAL CHANGES IN MOTHER

- * Waistline is thicker and clothes are not fitting
- * Movements of the baby are being felt
- * Less fatigue
- * Circulatory system is changing resulting in haemorrhoids, varicose veins, bleeding gums, dizziness, etc.
- * Skin changes are occurring such as darkening of skin and dry skin
- * Increased appetite

PREGNANCY:

Second Trimester (weeks 13-27)

- * Baby is 28 to 34 cm long
- * Baby weighs about 650 grams
- * Eyes open and close
- * No fat build up yet and is therefore wrinkly
- * Baby responds to sound
- * Skin has developed vernix and is transparent
- * Hair, eyelashes and eyebrows develop
- * Baby can suck
- * All organ parts are formed

PREGNANCY:

Second Trimester (weeks 13-27)

- * Keep regular napping routine going.
- * Recognize that you are not as agile as you were before pregnancy; be aware of the centre of gravity shifting.
- * Never climb up on to an unsteady surface, eg. chair, stool;
- * Be sure to wear safe and comfortable foot wear.
- * Due to possible increase dizziness from hypoglycaemia and hypotension, stand slowly or when lying down sit up slowly.
- * Do not stand for long period of time; while standing in one spot place one foot up on a box or stool to take the pressure off the back.
- * Sleep with an extra pillow to place in strategic positions for increased comfort.
- * Continue to lighten work load; even though you may be feeling great you do not want to be too busy because the time will come when you may not be able to keep up with out a great deal of stress.
- * Continue to take time with your baby; talk, sing, read and massage your baby.
- * Continue to take time for relaxation such as visualization, meditation, deep breathing, etc.
- * Continue to brush gums gently with a soft brush.

PREGNANCY:

Second Trimester (weeks 13-27)

ADDITIONAL NUTRITIONAL CONSIDERATION IN SECOND TRIMESTER

- * Weight gain is approximately 1 lb per week.
 - * Caloric intake should increase by 300 to 400 calories more per day than pre-pregnancy intake.
 - * Glucose is the primary fuel for the baby which is directly transported from your blood stream to the baby. Be sure to eat regularly and no missed meals or snacks. The baby will take what is needed which may leave the mother susceptible to hypoglycaemia.
 - * Calcium needs for the baby increases more at this point so be sure to increase calcium rich foods in diet.
 - * Iron needs increase a lot more for the mother due to increased blood volume and therefore more oxygen is needed.
- Fibre is needed in larger quantities at this point due to high progesterone levels which have a relaxing affect on the bowels causing the bowels to slow down a bit.

PREGNANCY:

Second Trimester (weeks 13-27)

HERBAL CONSIDERATIONS

During this part of the pregnancy the herbal focus is still on toning and nutritive qualities but now it is also a good time to think about nourishing externally as well.

An excellent belly cream as well as thigh and calf cream can be made from an infused oil of *Calendula off.* and *Stellaria media* using equal parts of each herb. This mixture can be applied 1 to 3 times per day. This cream will help to keep the lymphatic system stimulated which helps to reduce water retention and may help with keeping extra pounds off the thighs. Continue the tea from the first trimester.

A herbal bath made with *Matricaria recutita* or *Nepeta cataria* can help with relaxation and soothe aches and pains;

PREGNANCY:

Third Trimester (weeks 28-40)

PHYSICAL CHANGES IN MOTHER

- * Uterus is large and hard to touch
- * A lot of baby movements are felt and they are strong
- * Shortness of breath due to pressure on diaphragm
- * Trouble sleeping due to discomfort and thinking about baby
- * Belly button pushes out
- * More weight gain
- * Changes in center of gravity causes postural changes
- * Joints begin to loosen preparing for labour

PREGNANCY:

Third Trimester (weeks 28-40)

DEVELOPING BABY DURING THIRD TRIMESTER

- * Baby is 48 to 52 cm long
- * Baby weighs 3000 to 3600 grams
- * Eyes are slate coloured
- * Fingernails have grown past the ends of the fingers
- * Baby gains fat and is more rounded and less wrinkly
- * Brain waves are detectable

PREGNANCY:

Third Trimester (weeks 28-40)

LIFESTYLE CONSIDERATIONS

- * Keep regular napping routine
- * Be aware of the centre of gravity shifting.
- * Move slowly still when getting up to stand or from a lying position. Hypotension and/or hypoglycaemia may be worst now.
- * Continue not to stand for long period of time; while standing in one spot place one foot up on a box or stool to take the pressure off the back. When sitting or lying down, elevate the legs to give them a bit more of a rest.
- * Continue to sleep with an extra pillow to place in strategic positions for increased comfort.
- * Lighten work load; even though it is near the end of the pregnancy, save your time for yourself now because there will be increased work and less time once the baby arrives.
- * Continue to take time with your baby; talk, sing, read and massage your baby.
- * Keep taking time for relaxation such as visualization, meditation, deep breathing, etc.
- * Continue to brush gums gently with a soft brush to help prevent gingivitis due to increased blood flow to the gums.

PREGNANCY:

Third Trimester (weeks 28-40)

ADDITIONAL NUTRITIONAL CONSIDERATIONS IN THIRD TRIMESTER

- * Weight gain is still at 1 lb per week.
- * Caloric intake should increase by 500 calories more per day than pre-pregnancy intake.
- * Continue to eat regularly and no missed meals or snacks for a continual glucose supply for the baby.
- * Continue to keep calcium levels high in diet.
- * Continue to keep iron levels high in diet.
- * Continue to keep fibre levels high in diet.
- * Zinc is needed more now to help prevent premature labour.

PREGNANCY:

Third Trimester (weeks 28-40)

HERBAL CONSIDERATIONS

"When a woman is in labour, a little fight goes on in the woman's brain. One part of her brain, the intellect, will tell her that she should do certain things. Perhaps those are things that she learned in childbirth classes; perhaps those are things that other people have told her that she should do to cope with birth.

But from the other part of the brain will come an urge so deep within her that it will compel her to move her body and to use her voice in a completely different way.

Those are her deep instincts about childbirth, but we have buried these for so long that most of us have forgotten that knowledge. Occasionally, though, I see women who remember..."

Whitridge, Candace. The Instinct of Birth. Published in the spring 1994 (Vol. 1, No. 1) issue of THE BIRTHKIT, a Publication of the Midwifery Today Association
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PREGNANCY:

Third Trimester (weeks 28-40)

PREPARING FOR LABOUR AND DELIVERY

LIFESTYLE CONSIDERATIONS

- * Prepare bag for hospital or for home birth a few weeks before EDD
 - * Continue Kegel, yoga and other exercises for optimum muscle tone and strength.
 - * Do perineal massage a few times per day to help prepare for birth, beginning at 36 weeks.
 - * Plan a few meals a head of time and place into freezer ready to be heated and eaten.
- Give partner a refresher course on how the house works (if necessary) for shared responsibilities.

PREGNANCY:

Third Trimester (weeks 28-40)

PARTUS PREPARATION & BIRTHING HERBS

The last few weeks before the expected delivery of the baby herbs may be used to prepare the body. It is possible to help speed up the ripening of the cervix using herbs. It is also possible to have the uterus ready and primed. The following herbs may be used in combination to tonify the uterus and facilitate childbirth:

<i>Mitchella repens</i>	Uterine tonic, Partus preprator
<i>Cimicifuga racemosa</i>	Antispasmodic, Oestrogenic (SERM), Uterine tonic, Partus preprator
<i>Caulophyllum thalictroides</i> (hot water extract)*	Emmenagogue, Oestrogenic (SERM), Uterine tonic, Partus preprator
<i>Zingiber officinalis</i> inhibitor	Antispasmodic, Pelvic decongestant, Prostaglandin

Dosage: 5 mls 2 to 3 times per day until labour begins.

PREGNANCY:

Third Trimester (weeks 28-40)

Partus Preparation

Caulophyllum thalictroides controversy

From Paul Berger, Medical Herbalist:

Early historical use of *Caulophyllum thal.* was based on Rafinesque

Eclectic use widespread & longterm use of tincture combinations

Always in combination, Eclectic & Mother's Cordial

Water decoction, historical use

Tincture use in very small amounts or proportions

Never used as a capsule or tablet because they isolate & concentrate the alkaloids that caused the adverse cardiovascular events.

Midwives rarely use it as a single and it was never used historically as a powdered extract in capsule nor tablet form.

See the works of Dugoua & Seely (Canadian Journal of Clinical Pharmacology) and Paul Bergner in Medical Herbalism for long discussion.

PREGNANCY:

Third Trimester (weeks 28-40)

Partus preparation

Mother's cordial (tincture + sugar syrup)

16 parts *Mitchella repens*

1 part *Viburnum opulus*

1 part *Caulophyllum thalactroides*

1 part *Chamaelarium luteum*

In use for over 100 years and is still available now (Sharol Tilgner ND makes it in Oregon).

Even in tincture form we have 1 part *Caulophyllum thalactroides* in 19 which is approximately 5% and it has no reporting of adverse events. Fetal monitoring is relevantly new and most likely the people who receive it are using it are not using herbal products. There is not a lot of adverse events in the midwifery reports even with its use.

LABOUR & DELIVERY

GENERAL CONSIDERATIONS

- * Movement is very helpful during surges or contractions and throughout labour. This alone helps by letting gravity work. Squatting is wonderful for helping to open the pelvis and is also a great form of pain relief to be able to bounce on the heels a bit. Dancing is also nice because of the close contact with the partner and for the movement.
- * A yoga ball is a very useful accessory. Sitting or bouncing on the ball keeps the pelvis open.
- * For pain relief, hot water is one of the best forms. Having a hot shower, bath or climbing in a hot tub can all be very relaxing which helps to reduce the pain and stimulation of pain receptors. Sometimes a ball can be put in a shower so that the water may soothe the back while in a seated posture.
- * Urinating every half hour is important so as to decrease chances of damage from pressure on the bladder causing possible permanent damage.
- * Many breathing techniques can also be helpful with contractions.
- * Visualization techniques can help with pain but also opening the pelvis or positioning a baby.
- * Play some relaxing music in the background.
- * Praise and encourage mother that she is doing a great job.
- * After the delivery of the baby, it is important to keep the mother warm using oven heated blankets. Placing the baby on the mother's breast not only keeps the baby warm but also encourages breastfeeding.

LABOUR & DELIVERY

NUTRITIONAL CONSIDERATIONS

- * Hydration of fluids is necessary. Ice cubes can be very handy and prepared with herbs ahead of time.
- * High energy snacks such as fruit, granola are useful but may be eaten slowly. During pre-labour and active labour the body is not able to digest fats and proteins.
- * Popsicles can be refreshing, again homemade is best.

Doula Notebook

FIRST TRIMESTER

Emotional swings	Assist in relaxation	Nervines	<i>Scutellaria lat.</i>
Fatigue	Support energy levels	Adaptogens	<i>Withania somnifera</i>
Headache	Relaxation of mm.	Nervines	<i>Matricaria rec., Lavendula ang., Stachys betonica</i>
Morning sickness	Settle Digestion	Carminatives	<i>Zingiber off.</i>
Sore breasts	Relieve fluid tension		<i>Cabbage leaves topically</i>
Hyperemesis gravidarum	Settle Digestion	Carminatives	<i>Zingiber + Mentha+ Matricaria+ Dioscorea & Tarax rad. Replace electrolytes</i>
Threatened miscarriage	Uterine support	Antispasmodics	<i>Dioscorea villosa Mitchella repens Viburnum opulus Viburnum prunifolium Vitex agnus castus</i>
Inevitable miscarriage	Uterine support	Antispasmodics	<i>Mitchella repens Viburnum opulus Viburnum prunifolium Vitex agnus castus</i>

Doula Notebook

SECOND & THIRD TRIMESTER

Anxiety	Calm mother	Anxiolytics	<i>Piper methysticum</i>
Backache	Relax back muscles	Antispasmodic	<i>Viburnum opulus</i>
Colds/Flus	Eliminate infection	Antimicrobial/viral	<i>Sambucus nigra fruct.</i>
Constipation	Encourage BM	Gentle laxatives	<i>Soaked prunes</i>
Edema	Reduce edema	Diuretic	<i>Urtica dioica fol.</i>
Haemorrhoids	Relieve pressure	Venous toners	<i>Hammamelus</i> external
Heartburn	Soothe Esophagus	Stomachic	<i>Filipendula ulmaria</i>

Doula Notebook

SECOND & THIRD TRIMESTER

Insomnia	Induce natural sleep	Sedative Nervines	<i>Scutellaria lat.</i>
Itchiness	Reduce pruritis	Astringents	<i>Hammamaelis</i> extract
Sciatica	Reduce nerve spasm	Antispasmodic	<i>Viburnum opulus</i>
Stretch marks	Nourish skin	Vulnerary	<i>Centella asiatica oleum</i>
Urinary incontinence	Tonify bladder	Bladder toners	<i>Rhus odoratum</i>
Anaemia	Give iron	Nutritives high in minerals	<i>Althea off. fol.</i> <i>Medicago sativa</i> <i>Rubus idaeus</i> <i>Urtica dioica fol.</i> prepared with Blackstrap molasses

Doula Notebook

LABOUR & DELIVERY

Preparation for labour & delivery	Tone Uterus	Partus preparators	Caulophyllum thali. Chamaelirium luteum Cimifuga racemosa Lamium album Mitchella repens Rubus idaeus fol.
		Uterine tonics	Caulophyllum thali. Chamaelirium luteum Cimifuga racemosa Lamium album Mitchella repens Rubus idaeus fol.
Breech baby	Assist in natural turning of baby	Use of TCM modalities and skill of midwife	Moxibustion with Artemesia vul. on UB 67
Premature ROM	Stimulate contractions	Uterine stimulant	Caulophyllum thali. Ricinus communis Rubus idaeus nipple stimulation sexual intercourse
	Stimulate cervical ripening	Prostagladins	Evening Primrose Oil

Doula Notebook

LABOUR & DELIVERY

Postdates (medical restrictions require that women give birth by 41 weeks gestation or within 18 hours of ROM)	Stimulate contractions	Uterine stimulants	<i>Caulophyllum thac.</i> <i>Ricinus communis</i> <i>Rubus idaeus fol.</i> nipple stimulation sexual intercourse
	Stimulate cervical ripening	Prostagladins	Evening Primrose Oil
Pain	Relieve labour pain	Analgesic/sedative	<i>Corydalis ambigua</i> <i>Eschscholzia cali.</i> <i>Piscidia piscidia</i>
Facilitating labour	Promote smooth muscle relaxation & Coordinate uterine muscle activity	Uterine spasmolytics	<i>Cimicifuga racemosa</i> <i>Leonurus cardiaca</i> <i>Viburnum opulus</i> <i>Viburnum prunifolium</i>

Doula Notebook

LABOUR & DELIVERY

Anxiety	Relieve maternal anxiety & tension	Anxiolytic Nervines	<i>Leonurus cardiaca</i> <i>Matricaria recutita</i> <i>Melissa off.</i> <i>Nepeta cataria</i> <i>Passiflora incarnata</i> <i>Piper methysticum</i> <i>Scutellaria lateriflora</i> <i>Tilia europa</i> <i>Valeriana off.</i> <i>Verbena off.</i>
Pelvic tension	Promote smooth muscle relaxation & Coordinate uterine muscle activity	Uterine spasmolytics	<i>Cimicifuga racemosa</i> <i>Leonurus cardiaca</i> <i>Viburnum opulus</i> <i>Viburnum prunifolium</i>

Doula Notebook

LABOUR & DELIVERY

Pelvic tension	Relieve maternal anxiety & tension	Anxiolytic Nervines	<i>Humulus lupulus</i> <i>Leonurus cardiaca</i> <i>Matricaria recutita</i> <i>Melissa off.</i> <i>Nepeta cataria</i> <i>Passiflora incarnata</i> <i>Piper methysticum</i> <i>Scutellaria lateriflora</i> <i>Tilia europa</i> <i>Valeriana off.</i> <i>Verbena off.</i>
	Relieve labour pain	Analgesic/sedative	<i>Corydalis ambigua</i> <i>Eschscholzia cali.</i> <i>Piscidia erythrina*</i>

LABOUR & DELIVERY

Pelvic tension	Ensure proper nutrition	Nutritive tea	<i>Althea off.fol.</i> <i>Medicago sativa</i> <i>Rubus idaeus</i> <i>Urtica dioica fol.</i> <i>Rosa canina</i>
		Electrolyte replacement	1 L mason jar with: Filtered water or herbal tea 1/8-1/4 tsp. Sea salt ¼ - ½ tsp. crushed Cal/Mag tablet ¼ cup of lemon juice 1-2 Tbsp. Honey or Maple Syrup
Postnatal haemorrhage	Medical emergency		

Doula Notebook

POSTPARTUM

Postpartum bleeding	Promote normal lachia	Uterine & capillaries tonifiers	<i>Achillea millefolium</i> <i>Alchemilla vulgaris</i> <i>Angelica archangelica</i> <i>Capsella bursa-pastor.</i> <i>Cinnamomum zeylan.</i> <i>Erigeron canadensis</i> <i>Hamamelis virginiana</i> <i>Leonorus cardiaca</i> <i>Urtica dioica fol.</i>
Perineal Care	Soothe perineal tissue postpartum	Vulneraries	comfrey leaves** 2 ounces calendula flowers 1 ounce lavender flowers 1 ounce sage leaf 1 ounce myrrh powder 1/2 ounce sea salt 3/4 cup
Inefficient milk supply	Lactation support	Galactagogues	<i>Borago off.</i> <i>Cnicus benedictus</i> <i>Foeniculum vulgare</i> <i>Galega off.</i> <i>Trigonella foenum-graceum</i> <i>Vitex agnus-castus</i>

Doula Notebook

POSTPARTUM

Sore nipples	Soothe and moistures nipples	Vulneraries	<i>Calendula</i> infused in coconut/olive oils, Cocoa butter, Shea butter
Thrush	Support the growth of healthy flora	Probiotics & lactofermented food application and ingestion	Apple cider vinegar Yogurt, Probiotics
	Eliminate the yeast & candida	Antifungal	<i>Juglans nigra</i> (use swab only)
Breast engorgement & mastitis	Reduce inflammation	Astringents, Anti-microbial	<i>Echinacea angustifolia</i> Cabbage leaves topical

Doula Notebook

POSTPARTUM

Postpartum Depression			<i>Avena sativa</i> <i>Borago off.</i> <i>Hypericum</i> <i>Leonurus, Matricaria</i> <i>Passiflora</i> <i>Piper methysticum</i> <i>Lavendula off.</i> <i>Tilia europa</i>
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*Give 1/4-1/2 tsp (in combination) every 15-30 minutes for up to a maximum 6 doses. Discontinue if not effective.

Do not exceed this dosage range due to potential toxicity from the *Piscidia*.

** Note: It has been suggested that Pyrrolizidine alkaloids (PA), known to cause hepatic damage when taken internally, can also be absorbed through skin abrasions and open wounds. There have been no case reports of hepatotoxicity from the use of comfrey on perineal tissue after tearing, episiotomy or suture repair. Plantain leaves can be used as a substitute if there is concern or the herb simply omitted; however, no adverse effects are expected from short-term topical exposure over a week of postpartum baths for either mother or infant.

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