Lactogenic Foods and Herbs
By Hilary Jacobson CH.HU.SI.
Based on her book Mother Food for Breastfeeding Mothers

What mothers eat can influence their milk supply

Around the world and throughout history, mothers have known that certain foods support their milk production. These foods were valued in earliest cultures and highlighted in mythology. Mother Goddesses were associated with barley grain, the almond, coconut, lotus, the elder tree, and many other plants and foods that were used historically to increase milk production.

Today, mothers dealing with low milk supply are again interested to learn how foods and herbs can support their milk production. Experts who work closely with low-supply mothers report that certain foods influence milk supply for some mothers. These so-called “lactogenic foods and herbs” are the subject of this article.

Dietary Guidelines Following Birth

Getting a good start the first few weeks after birth can be helpful in supporting the onset and development of a mother’s milk supply:

• Get enough to eat. Simply eating regularly and getting enough calories will support your milk supply.
• Get enough to drink, but not too much. Between 2 - 3 quarts a day is a good goal to aim for. Some mothers discover they need much more, and some find that they need to get “just enough” fluids to maintain an optimal milk supply.
• Eat at least one warm meal per day that includes a source of protein, a portion of green salad, a grain such as millet or rice, and cooked vegetables such as yam, carrot, and fennel.
• Spice moderately with lactogenic spices, for instance with sea-salt or gomasio, with dill or caraway, or basil and marjoram, and, if tolerated, with garlic.
  • Avoid food that is hard to digest such as fried or extremely fatty food.
• Take probiotic yogurt or lactobacilli supplements to protect your intestinal flora and to help prevent colic and allergy in your baby(1).
• Get healthy fats such as butter and olive oil, and remember to supplement with essential fatty acids.
• Herbs useful after birth include stinging nettle to rebuild the blood lost during birth, turmeric, to help prevent breast inflammation, oat-straw, to nurture the nerves and to help prevent nervous exhaustion. These herbs also increase milk supply, so keep an eye on your supply and reduce or increase your dosage of these herbs as necessary.
  • If you lost a lot of blood during birth, avoid taking ginger for several weeks.
• A traditional Chinese remedy used in the early postpartum is homemade chicken soup, simmered with the bones for several hours and rich with chicken fat, taken only once a week—otherwise, it is said to over-stimulate the baby. This remedy is reputed to prevent depression, to restore a mother’s vitality, and to help develop an abundant milk supply.

**Individual Dosage Requirements**

Mothers have individual needs when it comes to lactogenic foods and herbs. Although most mothers produce milk well without having to consider their use at all, a few mothers find that they need to take a good amount every day, and that they may need to take a high dosage for two to four days to kick-start lactation.

As a breastfeeding mother gathers experience about her unique reaction to foods and herbs, she will learn the dosage that works best for her, both for building and for maintaining milk supply.

All mothers should consider the following: If you do not have low milk supply, and you take an abundance of herbs and foods to increase your supply, you may create unnecessary difficulties for yourself such as over-supply, engorgement, plugged ducts, or mastitis. Your baby may develop colic due to too much foremilk, or sucking difficulties due to an overly strong let-down reflex, both of which are common with over-supply. Use these foods and herbs wisely, and reduce or stop their use if you notice such problems.

**LACTOGENIC FOODS**

Lactogenic foods support lactation for many reasons. Eating sufficient calories and getting an abundant supply of nutrients is helpful in itself for lactation, but these foods also contain substances that interact with and support the chemistry of lactation. These substances include phytoestrogen, natural plant sedatives, plant sterols and saponins, and tryptophan, among others. In addition, a rich supply of minerals and a good balance of fats ensure that the mother’s cells and nerves are functioning at an optimal level.

**Vegetables**

Fennel

Fennel can be eaten raw or cooked, for instance, steamed, or sautéed in butter and then simmered in a bit of water. Fennel seed is well-known as an herb to increase milk production. The vegetable, containing the same pharmacologically active volatile oils, acts as a gentler support.

Carrot, Beet, Yam
These reddish vegetables are full of beta-carotene, needed in extra amounts during lactation. Carrot seed has been used as a galactagogue, and the vegetable, also containing the volatile oils and phytoestrogen, acts as a gentler support. The beet is a wonderful source of minerals and iron. Taking raw beet can help alleviate iron deficiency. These vegetables are naturally sweet, and they support the liver.

**Dark Green Leafy Vegetables**

Dark green vegetables are a potent source of minerals, vitamins and enzymes, as well as phytoestrogen that support lactation. Dandelion and stinging nettle leaves are diuretic, and can help reduce edema during pregnancy and after birth. They can be plucked from your garden in early spring and eaten whole, chopped into salad, or used to make tea. Stinging nettle can be harvested for salad or cooked as spinach. In your market, you’ll find arugula, beet leaves, kale, Swiss chard, spinach, chicory, collard greens and others.

**Grains and Legumes**

Grains and legumes have a long history as galactagogues. The most commonly used grains include oats, millet, barley and rice. Oats are the most widely used lactogenic food in the US. Legumes to include in your diet are chickpea, mung beans and lentils.

**Nuts**

Nuts that support milk supply include almonds, cashews, and macadamia nuts. As much as possible, eat raw nuts, not roasted or salted. The taste of raw nuts will grow on you.

**Oils and fats**

Healthy fats play a vital role in cellular and neural metabolism. The kinds of fats a mother eats will influence the composition of fats in her milk. Please see the article “Dietary Tips for Pregnancy and the Postpartum” for more information.

The renowned expert in fats, Mary G. Enig, suggests that mothers get regular and substantial dosages of butter and coconut oil. In addition, use cold-pressed virgin olive oil, and take equal amounts of cold-pressed sesame oil and flaxseed oil in salads.

One way to balance the fats is to dribble a quarter teaspoon of olive oil, flaxseed oil, sesame oil, and a thin slab of butter over meals. Be sure to eliminate unhealthy fats such as partially hydrogenated vegetable oils and transfatty acids from your diet, as these will also enter your milk.

In addition, be sure to have a source for essential fatty acids. For more information, see “Dietary Tips.”
Beverages

Lactogenic beverages include getting enough plain water to hydrate the body, drinking commercial lactation teas, non-alcoholic beer, ginger ale, Rivella, and natural herbal root-beers from your health food store. Check out coffee substitutes based on the lactogenic grain barley, such as CARO, Roma, Caffix, Pero or Dandy Blend. These imitation coffees usually also contain chicory or dandelion, plus malt—ingredients that are all lactogenic. A recipe for “Barley Water,” a potent lactogenic beverage, is at the bottom of this article.

Condiments

Garlic

Garlic is famous for its medical benefits, and has a long history as a galactagogue. In one study, babies were seen to latch on better, suckle more actively, and drink more milk *when the mother had garlic prior to nursing* (2). If you do not wish to eat garlic, try adding a capsule of garlic extract to a meal eaten about an hour before breastfeeding.

If you would like to introduce garlic to your diet, and are not used to eating garlic, introduce it very slowly and observe your baby’s reaction. Take only 1 - 2 cloves per day. These can be chopped or pressed through a garlic press into any food after it has finished cooking. Try it in vegetables, rice, grains, pulses, salad sauce, spaghetti sauce, or other sauce.

Our culture does not encourage eating garlic, and many people do not tolerate garlic well (or onions, another food which is traditionally lactogenic). For this reason, garlic is not recommended by the American Herbal Product’s Association while breastfeeding except under the guidance of a qualified herbalist. However, if you do tolerate garlic there is no reason that you should not benefit from it.

Take garlic in moderation as do mothers all over the world.

Caution: Do not combine with anticoagulants, as garlic has blood-thinning actions.

Danger: Babies and small children should *never* be given garlic in any form, whether fresh, dry, powdered or in capsules, to chew, swallow, eat or suck on. Garlic is highly caustic to delicate body tissues, and rubbing it in one’s nose or eyes could be painful and dangerous. Babies will benefit from the garlic a mother eats, and that reaches him through her milk.

Ginger

Ginger is helpful for the letdown and milk flow. Some mothers benefit from drinking ginger ale. Even commercial ginger ale is flavored with “natural flavoring” that is real ginger.
Warning: Do not use ginger or ginger ale in the early postpartum if there was significant blood loss during birth. Do not take ginger immediately after birth due to danger of hemorrhaging.

Caution: Ginger tends to compound and increase the effects of medication being taken. Talk to your doctor if you are taking medication, especially diabetic, blood-thinning, or heart medicine.

Sources: You can find ginger at your local grocery store. Check out stores that sell Asian foods, health food stores, and online.

Spices

Spices in your kitchen can be used to support milk production. Try adding marjoram and basil to your meals, and anise, dill or caraway. Black pepper, taken in moderation, is helpful.

Turmeric

This powdered yellow root gives curry its yellow color and basic flavor. A potent anti-inflammatory and antioxidant, turmeric is being studied in connection with the prevention of Alzheimer’s disease, rheumatism, and cancer. Turmeric has lactogenic properties and can also be taken to help prevent inflammatory conditions. One half teaspoon of turmeric a day may help prevent inflammation in the breasts.

Caution: Some herbalists warn that pregnant women should not use turmeric if they are at risk for miscarriage.

SPECIAL FOODS

Oats (Avena Sativa)

The humble oat is one of our most nutritious foods, and contains proteins, vitamins, minerals and trace elements that nourish the nerves, support the metabolism of fats, and uplift the spirit. In traditional medicine, both the seed and the leaf—called oat-straw—are taken. Oats are prescribed as a nervine tonic in the treatment of nervous exhaustion. In Europe, women traditionally take oats after birth. Oats are taken today in the US to increase milk production, both as food and as a supplement. Like other galactagogues, oats are antidepressant, antispasmodic, and they increase perspiration.

Allergy: Occasional. Persons sensitive to gluten in wheat are frequently able to tolerate oats.

Dosage and Preparation:

Taking large dosages of oats is helpful in kick-starting milk production.

Oatmeal can be taken for breakfast or an afternoon snack.
Oat-straw is especially rich in minerals. It is available as capsules or as an ingredient in so-called “green-drinks.” Take as indicated on the package.

Fluid extract: 3 - 5 ml (15 - 35 drops), three times a day.

Nutritional and Brewer’s Yeast

Nutritional or brewer’s yeast frequently leads to a significant boosts in a mothers’ milk supply. Mothers sometimes say that they feel much more energetic and emotionally balanced while taking yeast. This may signal a lack of essential nutrients in their diet, in particular, chromium, vitamin B complex, and especially vitamin B12, found in some brands of fortified nutritional yeast. Brewer’s and nutritional yeast also contain protein and good levels of phytoestrogen.

Allergy: Persons who are allergic to yeast should avoid these products.

Side-effects: Occasionally, mothers or babies become gassy, more so with brewer’s yeast than nutritional yeast. To be on the safe side, start with a small dosage and slowly increase.

Sources: Vegetarian stores and health food stores.

Green Drinks

Green foods are reputed to increase the fat content of breastmilk. Some mothers supplement with chlorophyll. So-called "green drinks" can be very helpful. Their ingredients include barley-grass, alfalfa leaf, spirulina, corellas, kelp, oat-straw and other herbs with lactogenic and medicinal properties.

Caution: Chlorella, a common ingredient in commercial green-drinks, is used by medical specialists to chelate (remove) heavy metals from the body, especially mercury. If not taken at the correct dosage, chlorella can lead to an increase of mercury in the bloodstream and probably in a mother’s milk as well. It is wise to choose green-drinks that only contain a low percent of chlorella.

Sources: Super markets, health food stores, online.

Green Papaya

Green papaya is taken as a galactagogue across Asia. It is a superb source of enzymes, vitamins, and minerals, including vitamins C, A, B, and E. Green papaya is the unripe fruit, and it needs to be simmered until soft. Green papaya can also be taken in supplement form.

Allergy: Persons allergic to latex may be allergic to papaya and other fruit.

Caution: Persons taking Warfarin should consult with their doctor before taking papaya supplements.
Sesame Seed

Large, black sesame seeds are used to increase milk production across Asia. Husked, light-colored sesame seeds are also effective and easier to digest. Sesame seed “butter” known as Tahini can be found in health food stores. Sesame is our most potent vegetable source of calcium!

Allergy: Allergy to sesame is becoming more common.

Spirulina

Spirulina is a non-toxic variety of blue-green algae. It has been farmed in lakes and ponds as a food source for thousands of years. It is valued for its proteins, enzymes, minerals, vitamins, chlorophyll, and essential fatty acids. Spirulina’s nutrients are easily absorbed, even when a person’s digestion is not up to par.

It is important that spirulina be cultivated on a farm that is not located in waters that are contaminated, in particular with heavy metals. It is also advisable not to use spirulina that has been genetically ‘improved.’ Spirulina and other “green foods” may increase the fat-content of breastmilk.

Note: It is not wise to rely on spirulina as a source of B12.

Barley Water

Barley-water is used medicinally to treat colds, intestinal problems (both constipation and diarrhea) and liver disorders. It was recorded in Greek medicine two thousand years ago as a galactagogue. Taken for a week or two, it often helps mothers with chronic low milk supply. Make a pot in the morning and drink it throughout the day, warming each cup and sweetening it with a natural sweetener as desired.

Barley-water can be made with whole grain or pearl barley. Barley flakes can also be used, though these have been processed and are possibly less potent than the whole or pearled grain.

Preparation:

• Quick-and-easy: 1/2 cup of flakes or pearled barley can be simmered in 1 quart of water for twenty minutes.
• Long-and-intensive: 1 cup of whole or pearled barley is simmered in 3 quarts of water for up to 2 hours. About half the liquid should cook off. Some recipes call for only 1/2 hour cooking time. However, the longer the barley simmers and the more pinkish (and slimier) the water becomes, the more of the ‘cream’ will enter the water and the stronger the medicinal effect will be.
• If the barley water becomes too thick to drink comfortably, add in more water.
• When finished, remove from the stove and sieve off the water. The grain is now tasteless and can be thrown out.
• Add 1 tablespoon of fennel powder or steep 2 - 3 teaspoons of fennel seeds for ten minutes in the barley-water before drinking.
• The traditional recipe calls for fennel seed. I personally find that powdered fenugreek seed is tastier than fennel in barley-water.

Introduction to the MOBI Herbal
Part One
Based on "A Lactogenic Herbal" from Hilary Jacobson's *Mother Food*

### Using herbs

It is wise to initially take a new herb or food at minimum dosage for a few reasons,

- To have a better idea of the minimum dosage you require so you can increase and decrease as needed
- To gauge if you have any side effects
- To avoid a severe allergic reaction, especially if there is a history of allergy in your family.

### Side effects

Sometimes mothers experience side effects with herbs. Side effects are different from allergies in that they usually pass after a few days of taking the herb at reduced dosage, and the mother can then build up her dosage again. Side-effects might include an episode of low blood sugar, slight nausea or headache. If a side effect continues, it's best to discontinue the herb. If you are pregnant, be sure to read the next section on pregnancy considerations. As well, see pregnancy recommendations in each herb's section of the MOBI Herbal.

### Allergic reactions

Potential allergies and side effects are listed in each herb’s section. If no remark is made about allergy and side effects in an herb’s section, that herb or spice is not generally considered allergenic, and has no typical side effect.

However, any person, even those with no previous history of allergy, can become allergic to any herb or food—though allergy usually develops when a person comes into excessive contact with a food or substance.

Take the food or herb and observe your response over the next few hours: Does your heart beat more quickly for no reason? Do you find yourself breathing rapidly, do you develop indigestion, have skin changes such as a patch of red skin on the face, or bright red ears, have difficulty swallowing, sinus
congestion, breathing problems, sudden fatigue, or involuntary movements such as nervous, twitching legs?

You probably will not experience any of these signs, and can increase the amount you take.

If you do experience these signs, stop taking the food or herb and talk to your doctor or allergist about your reaction.

Individual dosage requirements

 Mothers have individual needs when it comes to so-called “lactogenic foods and herbs.” Although most mothers produce milk well without having to consider their use at all, a few mothers find they need to take a good amount every day. Some may need to take a high dosage for two to four days to kick-start lactation.

 As a breastfeeding mother gathers experience about her unique reaction to herbs and foods, she will learn about the dosage that works best for her, both for building and for maintaining her milk supply.

 For example, some mothers respond to low-dose, mildly steeped teas, i.e., a low dosage of borage leaf or lemon balm tea may be mood elevating, are mild hops tea may be relaxing. Different persons have different levels of sensitivity; each of us has to experiment to learn about our responses to the herbs we use.

 More milk is not always better. Mothers should consider the following: If you do not have low milk supply, and you take an abundance of herbs and foods to increase your supply, you may create unnecessary difficulties for yourself such as over-supply, engorgement, plugged ducts, or mastitis. Your baby may develop colic due to too much foremilk, or sucking difficulties due to an overly strong let-down reflex, both of which are common with over-supply. Use these foods and herbs wisely, and reduce or stop their use if you notice such problems developing.

Pregnancy considerations

 During pregnancy, mothers take herbs for their nutritional value, to tone the uterus for birth, and to promote an abundant milk supply.

 Experts warn against taking large amounts of anise, basil, blessed thistle, chasteberry, fenugreek, thyme, and verbena during pregnancy, due to the slight risk of miscarriage associated with these herbs. Red raspberry leaf, widely used as a tonic for the uterus, should be introduced slowly for the same reason.

 The medical tradition of India cautions against all so-called warming herbs during pregnancy: anise, basil, caraway, cardamom, cinnamon, coriander, cumin, dill, fennel, fenugreek, garlic, ginger, black
seed (Nigella sativa), and turmeric. In India, foods are spiced with rather large quantities of these herbs. Women in the US and Europe, who use these herbs infrequently have little cause for concern. However, if you have a history of miscarriage and you enjoy a spicy cuisine, you may consider avoiding these herbs.

Herbs to promote health and glandular tissue during pregnancy

The herbs recommended for pregnancy are selected for their wealth of vitamins and minerals, their vitamin K and their folic acid. Some support the mother’s liver and kidneys. Others may maximize the development of glandular tissue.

Take the herbs listed below regularly, starting at mid-pregnancy when the breasts begin preparing for lactation. These herbs can be mixed together (“Combinations”) or alternated as single teas (“Singles”) every one or two weeks. Taking “singles” prevents the body from becoming insensitive to an herb, or from getting too much of any one herb, and is preferred by some herbalists. If you prefer combinations of two or three herbs, alternate these every few weeks.

- alfalfa leaf
- dandelion leaf
- nettle
- oat-straw
- red clover

Infusions for pregnant women

1. Infuse one ounce or two handfuls of the herbal mixture in a quart jar for several hours or over night.
2. Warm each cup and sweeten with a natural sweetener if desired before drinking.

To avoid developing an over-supply of milk, reduce your intake of these herbs—especially alfalfa—about two weeks before your due date unless you have a history of low milk supply with a younger baby, or have good reason to suspect that you will have low milk supply.

If you drink red raspberry leaf tea in addition to this program, introduce it slowly (see MOBI Herbal section on red raspberry tea).

Which galactagogue should I use?

Mothers frequently ask which herbal galactagogues are the best. Which will work best for me? They ask this not only because they are eager to find that works, but also in light of expenses. Buying herbal preparations does add up. Before special high-quality tinctures and teas were commercially available, mothers took a selection of inexpensive herbs in capsule form. These combinations were successful for most mothers. They are: fenugreek, blessed thistle, alfalfa, red clover and marshmallow. For more information, see our section on fenugreek.
Lactation consultants studying galactagogues are also eager to find answers to this question. Unfortunately, there is no one galactagogue or combination of herbs and foods that works equally well for all women. However, some lactation experts have discovered special herbs or combinations to be most effective for certain situations.

- Dr. Jack Newman IBCLC, a renowned Canadian breastfeeding expert, recommends the combination of fenugreek and blessed thistle, taken together with domperidone for mothers with low milk supply.
- Lisa Marasco, IBCLC suggests that mothers with low milk supply caused by insufficient glandular tissue consider taking goat’s rue, a herbal medicinal that supports the development of glandular tissue.
- Cheryl Renfree Scott IBCLC recommends so-called “green drinks” to boost the supply of mothers who have little time to devote to healthful eating.
- Herbalist IBCLC Michel Turner suggests a homeopathic remedy of wild lettuce when a mother is feeling very stressed.

**Find your best holistic solution**

From what some mothers report, low milk supply can sometimes be linked to a nutritional deficit. Many foods contain substances that interact with our endocrine systems, and these substances may play a role as well.

For some mothers, revamping their eating habits is key.

- Getting a balanced diet
- Eating a selection of lactogenic foods
  - Getting foods rich in iron
  - Getting foods rich in B vitamins
  - Getting more beta-carotene
  - Getting the right amount of fluids
- Getting a good range of healthy fats and essential fatty acids.

A mother may shake her head in wonder when she takes a certain healthful oil, or takes barley water, or oatmeal—and has a strong increase in her supply when she has tried lots of herbs or medication without success. She may be amazed when she begins experimenting with excluding or including certain foods, and her milk supply responds. The answer is likely that the mother has managed to find the nutrients or substances she was previously missing.

We know that variable factors can contribute to low supply, so it is wise to take a holistic approach and learn all about lactogenic herbs, spices, and lactogenic foods and oils. Start by revamping your diet be sure you are getting all the nutrients you need from whole foods. Even if a mother discovers that pumping or medication such as metformin or domperidone leads to a significant increase in her milk supply, finding a healthy and natural solution is likely to be more sustainable and satisfying.
supply, she should not miss the opportunity to learn about dietary changes for her milk supply—an opportunity to reap long term health benefits for herself and her family.

**Lactogenic Herbs: Mother Nature’s Milk Boosters, Part 2**

*Based on "A Lactogenic Herbal" from Hilary Jacobson's Mother Food*

The MOBI Herbal is based on those herbs that have been most frequently discussed on the MOBI Support Group over the years. Most are galactagogues—herbs taken specifically to increase milk supply. There are two exceptions: Echinacea, to be taken at the first sign of inflammation to prevent mastitis, and valerian, taken at low dosage to help sleep-deprived mothers find restful sleep, even when they continue to wake up during the night.

While most mothers use lactogenic herbs or foods for a short time to give their supply a boost, others depend on them to maintain their supply for as long as they produce milk. Some of these mothers find that herbs or foods lose their effect with time; apparently, the mother’s body becomes desensitized to the herb or food. The solution is to take a new herbal galactagogues and lactogenic foods. These will probably need to be taken at high dosage for a few days in order to kick in. Once the milk supply rebounds, reduce the dosage to maintenance dosage. At a later time, you will probably find that your responsiveness to the original herbs or foods is restored.

Alternating between different herbs and foods every few days can help prevent the body from becoming desensitized to any particular galactagogue.

Read articles about building milk supply and pumping on this website to be sure that your breasts are receiving adequate stimulation and removal of milk.

**Alfalfa Leaf (Medicago sativa L.)**

Alfalfa leaf is said to promote the development of the glandular tissue of the breasts. It can be taken both during pregnancy and after birth by mothers with a history of low milk supply. Taken after birth, it increases milk supply and is reported to increase the fat content of breastmilk. Incidentally, so do other so-called "green foods."

Alfalfa leaf is one of our most nutritious herbs. It contains chlorophyll, a host of minerals-calcium, magnesium, phosphorus, potassium, silicon, zinc-numerous vitamins-A, B1, B2, B3, B5, B6, C, D, E, and K—as well as essential and non-essential amino acids.

Alfalfa leaf is estrogenic and antifungal. It has substances that nourish the liver, activate the kidneys, suppress inflammation, address digestive disorders, and balance blood sugar. It is traditionally prescribed to promote the function of the pituitary gland, the source of the main hormones for
lactation.

The minerals in alfalfa leaf are well balanced and easily absorbed; pregnant and lactating women therefore frequently take alfalfa leaf as a mineral supplement.

**Of Note:** Because alfalfa is a powerful galactagogue, mothers with normal milk supply should reduce or discontinue alfalfa a few weeks before due date. Mothers with a history of low milk supply should be cautious as well, especially if their breasts show signs of better development this pregnancy. Oversupply can reportedly develop in these mothers as well.

**Pregnancy:** Safe. Estrogenic. Although alfalfa can be taken to promote menstruation, there are no warnings regarding pregnancy. That said, do not overdose!

**Allergy:** Rare. Skin rash.

**Side Effects:** Diarrhea or loose stool in the mother or baby. Reduce the dosage for a few days.

**Caution:** Do not over-eat alfalfa sprouts or seeds. These may trigger an auto-immune, Lupus-like condition in sensitive individuals. The American Pharmaceutical Association warns that persons with systemic lupus erythematosus should avoid alfalfa products. Sheila Humphrey however, in "Nursing Mother's Herbal," says that the questionable substance does not exist in the leaf, and that the leaf supplement should therefore not be a problem.

**Sources:** Health-food stores; whole foods stores; herbal pharmacies; online stores.

**Dosage and Preparation:**

- **Tea:** 1-2 teaspoons of dried herb per cup of water. Drink up to three cups per day. (To kick-start milk supply, double this dosage a few days. Increase is seen within two to four days.)
  - Infuse 1-2 handfuls in a quart of water, steep overnight.
  - **Alfalfa Supplements:** Up to 8 capsules per day.
  - **Dried juice powder:** 1 tablespoon, two times per day.
- **Homeopathy:** X30 is used in combination with Lactuca virosa X30 for exhausted, nervous, stressed mothers.

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**Anise (Pimpinella anisum) see also Umbel Seeds**

Anise seed is a sweet carminative spice-carminative because it soothes the intestine, is anti-spasmodic and anti-inflammatory, reducing cramps, relieving flatulence and improving digestion. Anise seed tea was taken in ancient Greece to "bring down the milk." In China, both anise seed and star-anise are used as a galactagogue. It is best to avoid star-anise, as commercial products may be contaminated with
Japanese star-anise, which is toxic.

Umbel seeds, including anise, share the following properties: they are estrogenic and relaxing (sedative); they support digestion, relieve flatulence (may ease a baby’s colic through the mother’s milk), and they aid in treating bronchitis and bronchial asthma (are anti-spasmodic).

**Pregnancy:** The American Herbal Products Association lists anise as unsafe during pregnancy (class 2b). It has been used in traditional medicine to promote menstruation, suggesting that it could trigger miscarriage. Ayurvedic medicine, the school of medicine from India, also warns against anise during pregnancy.

**Allergy:** Anise seed occasionally triggers allergic reactions of the respiratory tract, gastrointestinal tract, and skin.

**Sources:** Spice sections of grocery stores and health food stores.

**Dosage and Preparation:** see also Umbel Seeds.

- **Anise tea:** Gently crush 1 - 2 teaspoons of anise seeds, and cover with one cup of boiling water. Cover and steep between 5 - 20 minutes. Sweeten to taste. Take 3 cups a day.
- **To kick start milk production,** take up to 6 cups of anise tea for two to four days, carefully observing your and your baby's reaction.
- **Infusion:** In Eastern Europe, umbel seeds such as anise are covered with boiling water and steeped for four hours before drinking.

**Black Tea**

Black tea is listed as a galactagogue. Mothers sometimes report that drinking black tea increases their milk production. Be careful however not to rely on tea, coffee, chocolate or sugar for energy throughout the day. This dependence can result in blood sugar issues and related insulin problems that are not good for your health or your milk supply in the long term.

**Blessed Thistle (Cnicus benedictus)**

Blessed thistle increases the flow of gastric and bile secretion. It is used in the treatment of stomach, intestines, liver, and gall bladder disease. It increases appetite and reduces flatulence. Remember that bitter teas need to taste bitter in order to trigger the release of gastric juices and stimulate the production of bile, so do not over-sweeten this tea.

**Pregnancy:** Avoid use during pregnancy.
**Allergy:** Rare. People who are allergic to the daisy family, (Asteraceae), may be allergic to blessed thistle.

**Caution:** Stimulates gastric juices; persons with ulcers, hyperacidity or acute stomach inflammation may be advised not to take blessed thistle.

**Side Effects:** Rare. Diarrhea in the mother.

**Sources:** Health-food stores; whole foods stores; herbal pharmacies; online stores.

**Dosage and Preparation:**

- **Tea:** Pour a cup of boiling water onto 1-2 teaspoons of the dried herb. Steep for 5 - 10 minutes. Drink three cups a day, before meals or snacks. To kick-start lactation, take up to 6 cups a day.

- **Capsules:** Up to 3 capsules, 3 times a day in combination with other herbs such as fenugreek.

**Caraway (Carum Carvi)**

Caraway is a tangy carminative spice—it soothes the intestine, is anti-spasmodic and anti-inflammatory, reducing cramps, relieving flatulence and improving digestion. Use caraway when cooking vegetables that are difficult to digest, such as cabbage or cauliflower—important if your baby has colic or is fussy.

Umbel seeds, including caraway, share the following properties: they are estrogenic and relaxing (sedative); they support digestion, relieve flatulence (may ease a baby's colic through the mother’s milk), and they aid in treating bronchitis and bronchial asthma (are anti-spasmodic).

**Pregnancy:** Ayurvedic medicine from India warns against taking large amounts of warming herbs, including caraway, during pregnancy.

**Allergy:** Occasional.

**Caution:** Mothers of lethargic babies should avoid taking large amounts of herbs that have sedative effects—such as hops and umbel seeds—as these could possibly make their baby sleepier. Lethargic babies should see their pediatrician as soon as possible.

**Caution:** Traditional Chinese Medicine warns that warming herbs, such as umbel seeds, should not be taken in large amounts by mothers who tend to develop breast infections.

**Sources:** Spice section of grocery stores, whole-food stores, online stores.
**Dosage and Preparation:** see Umbel Seeds.

### Commercial Lactation Teas and Tinctures

Health-food stores and super-markets often carry a mixture of herbs from local producers that support breastfeeding, known as lactation tea. A variety of brands and mixtures are available. Check to see whether the ingredients, at least some of the ingredients, are organically grown. Check to see if they are fresh. Fresh ones should maintain color, not look dried and faded, and should smell intensely. Mother's Milk® Tea from Traditional Medicinals has an excellent reputation, though some mothers find it very bitter.

Quality tinctures to increase milk production are available from online sources such as motherlove.com, and birthandbreastfeeding.com.

**Sources:** Grocery stores, health-food stores, online stores.

### Cumin (Cuminum cyminum)

Cumin gives curries their zing. It is a well known galactagogue. Like all umbel seeds, adding cumin to a meal will make it easier to digest. This can be helpful if your baby has colic or digestive stress. One mother from Africa spoke of the women in her community eating small green lentils with plenty of cumin and tomatoes to increase their milk production.

Umbel seeds, including cumin, share the following properties: they are estrogenic and relaxing (sedative); they support digestion, relieve flatulence (may ease a baby's colic through the mother's milk), and they aid in treating bronchitis and bronchial asthma (are anti-spasmodic).

**Pregnancy:** Ayurvedic medicine from India warns against taking large amounts of warming herbs, including cumin, during pregnancy.

**Allergy:** Rare.

**Caution:** Mothers of lethargic babies should avoid taking large amounts of herbs that have sedative effects—such as hops and umbel seeds—as these could possibly make their baby sleepier. Lethargic babies should see their pediatrician as soon as possible.

**Caution:** Traditional Chinese Medicine warns that warming herbs, such as umbel seeds, should not be taken in large amounts by mothers who tend to develop breast infections.

**Sources:** Health-food stores; whole foods stores; herbal pharmacies; Asian stores; online stores.
Dosage and Preparation: see Umbel Seeds

**Dandelion (Taraxicum officinale)**

Some of our common weeds were brought over to the US from Europe by early settlers who appreciated their nutritional and medicinal values. Among these are thistles and the dandelion-plants that are valued in the Mideast and Asia as galactagogues.

The common dandelion is nutrient-rich and contains calcium, iron, magnesium, manganese, phosphorus, potassium, selenium, zinc, vitamins B1, B2, B3 and high amounts of vitamin C and beta-carotene. The dandelion is said to support the liver, increase bile production, reduce cholesterol and uric acid levels, and improve the functioning of the kidneys, spleen, pancreas and stomach. It is used for fluid retention, anemia, constipation, abscesses, boils, cirrhosis of the liver, and rheumatism. It is also used in the treatment of hepatitis and jaundice.

In China, varieties of the dandelion have been used since ancient times to treat breast problems such as cancer and mastitis, and for increasing milk production. If dandelions grow naturally near you, and are not exposed to pollution or pesticides, try eating a few of the leaves every day for their support of your milk supply. Native Americans quickly realized the value of dandelion and thistles; dandelions are recorded as a galactagogue in the Native American medicinal cornucopia.

**Allergy:** Rare. Persons allergic to the daisy family (Asteraceae) may be allergic to dandelion. Skin rash.

**Warning:** Dandelion is an herbal diuretic, and should not be combined with prescription diuretics. It is not recommended for people with obstructed bile ducts, or gallbladder empyema. Use only under the guidance of your physician if you have gallstones.

**Caution:** German herbalists suggest that dandelion only be used at therapeutic dosage for 3-4 weeks at a time.

**Sources:** Health food stores; herbal pharmacies; online stores.

**For a baby with jaundice,** yarrow, a gentler liver-herb, is the medicinal of choice, to be taken by the breastfeeding mother, one cup a day.

**Homemade dandelion root medicinal:** Pull dandelions from the garden, (if you do not use chemicals on your lawn), preferably before the plant begins to flower in the early spring. Wash the roots, slice in half lengthwise, and chop into small pieces. Spread the pieces out in one layer and allow them to dry in a cool, dry, shady place for two to three weeks.
Dosage and Preparation:

- **Tincture:** 1 - 2 ml of the tincture, or 10 - 15 drops 3 times daily.
- **Capsules:** Follow directions on package.
- **Infusion:** Soak 1 tablespoon of roots in 3 cups of cold water overnight. Next morning, briefly boil and strain. Sip 1 cup 1/2 hour before meals.
- **Decoction:** Gently simmer 1 tablespoon of finely chopped fresh, dried or powdered root in 3 cups of water for 10 - 15 minutes.
- **A tasty combination:** approximately 1/4 teaspoon of dandelion root, fenugreek seeds, and marshmallow or hollyhock root. Prepare as the decoction above.
- **As food:** The leaves can be eaten whole, can be chopped and sautéed in virgin olive oil with onion and garlic, or cut into salad. The young root *melts on your tongue* if halved lengthwise and sautéed in olive oil for five minutes.
- **Dandelion tea as beverage:** Steep a 1/4 teaspoon of leaves in 1 cup of boiled water for 3 minutes.
- **Dandelion root tea as beverage:** Dandelion root is considered a bitter tasting tea. However, lightly prepared dandelion root tea tastes earthy-sweet. Simmer 1/4 - 1/2 teaspoon of root in 2 cups of water for 5 minutes for a gently sweet medicinal.

Dill (Anethum graveolens)

Dill, both the seed and the leaf, has a reputation for treating flatulence and colic in a baby through mother’s milk.

As a spice it is used to flavor salad dressing, sauces, bread, eggs, cottage cheese, minced meat, chicken, vegetables, in pickling, and fish and shellfish dishes.

Dill is an umbel seed and shares the following properties: estrogenic and relaxing (sedative); supports digestion, eases colic and flatulence (may ease a baby’s colic through the mother’s milk), and aids in treating bronchitis and bronchial asthma (anti-spasmodic).

Pregnancy: Ayurvedic medicine from India warns against taking large amounts of warming herbs, including dill, during pregnancy.

**Allergy:** Occasional.

**Caution:** Traditional Chinese Medicine warns that mothers who tend to develop breast infections should not take large amounts of warming herbs, such as umbel seeds.

**Sources:** Spice section of grocery stores; health-food stores, Asian stores, online stores.
Dosage and Preparation: see also Umbel Seeds.

- **Tea:** 3 - 6 cups a day. Steep 1 teaspoon of the crushed seeds in a cup of boiled water for 10 - 15 minutes. For flatulence in the mother, sip a cup of dill tea 10 minutes before meals. Sip throughout the day to treat colic in the baby through your milk, or for use as a galactagogue.

- **Decoction:** The ancient Greek doctor, Dioscorides, recommended a decoction of dill to “bring down the milk.” He may have been referring to the letdown reflex, but he may also have been referring to a delay in the onset of milk production after birth. A remedy from India uses dill for delayed onset of milk production: Soak 3 tablespoons of dill seed in a quart of water over night, and next morning, gently simmer until half or more of the liquid has evaporated off. Sip throughout the day.

- **Dill seed tea as a beverage:** Lightly steeped dill tea has a satisfying flavor. Steep 1 teaspoon of the seeds in a cup of water for 3 minutes. Sweeten to taste.

Echinacea (Echinacea angustifolia)

Breast infection / mastitis: Echinacea can help stave off inflammation of the breasts that might otherwise require antibiotics. Echinacea is thought to be most effective against breast infection if taken at the *first sign* of tenderness or redness. A quick response with echinacea almost always wards off infection. However, studies suggest that echinacea may have less effect, and may over-demand and thereby weaken the immune system if used on a regular basis to prevent infection.

**Do not take echinacea unnecessarily as a so-called preventative measure.**

Proceed normally to ward off mastitis: feed often and position your baby so that his chin is on the same side as the inflamed area to be sure that that area is well-drained. Contact your local LLL-leader or lactation consultant for guidance on treating breast infection. Early response usually makes the use of antibiotics unnecessary.

**Allergy:** Persons who are allergic to the daisy family (Asteraceae) may be allergic to echinacea - especially the leaf and flower-and should use it cautiously. **Try to get a tinctured product made only with the root.**

**Warning:** Echinacea is not to be used for a prolonged period of time (longer than eight weeks), because of concerns that it could exhaust the immune system through over-stimulation.

**Warning:** Echinacea is not to be used in treating tuberculosis, leukemia, collagenosis, multiple sclerosis, AIDS, HIV infection, and other autoimmune diseases.

**Warning:** Echinacea must be taken under medical supervision if you have diabetes.
Sources: Health food stores; drug stores; herbal pharmacies; online stores.

Dosage and Preparation:

- Capsules: Follow dosage directions on the package.
- Tincture: General dosage suggestions are to take 15 - 30 drops, 3 - 5 times the first day, and reduce to 3 times a day for following days until the inflammation has resolved.

**Fennel (Foeniculum vulgare)**

Fennel is highly regarded as a galactagogue—both the root as food, and the seed as an herbal medicinal.

Taken at a high dosage for a few days, fennel seed can increase milk supply and improve both the mother's and baby's digestion, through her mother's milk. However, in Traditional Chinese Medicine, fennel seed is said to have a **drying quality** that will reduce milk production if taken at a high dosage over a long period of time.

Fennel seed is a common ingredient in a lactation herbal mixture, or can be taken as a "single," or alternated with other lactogenic beverages.

**Pregnancy:** Ayurvedic medicine from India warns against taking large amounts of warming herbs, including fennel seed, during pregnancy.

**Allergy:** Occasional.

**Caution:** Mothers of lethargic babies should avoid taking large amounts of herbs that have sedative effects—such as hops and umbel seeds—as these could possibly make their baby sleepier. Lethargic babies should see their pediatrician as soon as possible.

**Caution:** Traditional Chinese Medicine warns that warming herbs, such as umbel seeds, should not be taken in large amounts by mothers who tend to develop breast infections.

Sources: Health-food stores; whole foods stores; herbal pharmacies; online stores.

Dosage and Preparation: see Umbel Seeds.

**Fenugreek (Trigonella foenum-graecum)**

The best known and most frequently taken galactagogue in the US is fenugreek seed. Originally from Asia, fenugreek was not known in Europe and the west until recently. Ironically, it is not recorded in
any traditional western herbal as a galactagogue.

Fenugreek has medicinal effects in common with other galactagogues. Fenugreek enhances perspiration, relaxes (natural mild sedative), is used to support the liver, and also contains very high levels of phytoestrogen. Based on its century-old reputation for increasing breast-size, it is possible that its phytoestrogen specifically targets the breast. Fenugreek also loosens and discharges lung congestion. It soothes the intestine, and reduces flatulence. Fenugreek also lowers 'bad' cholesterol and relieves water retention.

Though most mothers with low milk production respond quickly to fenugreek seed tea, capsules, or tincture, not all do. Some mothers see more success when they take fenugreek in combination with other herbs. If you do not respond well to fenugreek, open a capsule to check the freshness and quality of the powdered herb. It should have a distinct color and smell. If not, the herb may be old and may have lost its therapeutic effect. Buying a fresher product may solve the problem.

Fenugreek usually increases milk production within one to three days, though for some mothers it may take four to five days to see an effect. Lactation experts say that when a mother's perspiration and urine smell like maple syrup, an optimum dosage has probably been reached. (In India, people eat fenugreek seed especially for this 'perfume.') However, some mothers do not see an increase in their milk supply with fenugreek alone. They may need to try fenugreek as tincture, or take it in combination with other lactogenic herbs.

If you do not see an effect, in spite of using a quality product and smelling like maple syrup, talk to your lactation specialist about alternatives strategies such as one of the herbal-combinations described below.

**Pregnancy:** Do not take fenugreek seed during pregnancy.

**Allergy:** Mothers sometimes develop asthma or wheezing when they take fenugreek. This is an allergic reaction. Mothers who already have asthma may see it triggered if they take fenugreek. Women who are allergic to fenugreek may also be sensitive to chickpea and peanut.

**Side effects:** Occasionally, mothers experience nausea, faintness, diarrhea, or running sinuses from fenugreek. These symptoms usually pass in a few days though. Fenugreek seed occasionally triggers migraine headaches and high blood pressure.

**Hypoglycemia:** If you suffer from low blood sugar, you could possibly feel light-headed or fatigued while on fenugreek, though this side effect is reported very rarely.

**Baby:** Babies may become fussy when the mother is on high-dose fenugreek. Some babies become
gassy and have runny stool. This usually passes in a few days.

**Diabetes:** Only use fenugreek under the guidance of your doctor if you have diabetes.

**Blood-thinning medication:** Only use fenugreek under the guidance of your doctor if you are taking blood-thinning medication.

**Sources:** Health-food stores; whole foods stores; herbal pharmacies; online stores.

**Dosage and Preparation:**

- **Capsules:** Try one capsule the first day to see if you have an allergic reaction. If you do not have a reaction, then take 3 capsules, and then 6 capsules a day, divided into three dosages, taken before meals. Add one additional capsule per day and build up to 9 per day. This is considered standard dosage, though some mothers take larger dosages. Gauge your reaction carefully, and ask your lactation expert and doctor for guidance if you are unsure about your optimal dosage. In some sensitive women, a very low dosage of fenugreek does increase milk production. One woman reported seeing significant improvement with only 2 capsules per day.
- **Tincture:** Fenugreek is frequently a main ingredient in lactation tinctures. Follow the dosage directions on the package.
- **Tea:** Fenugreek seed can be steeped, infused, or decocted, and can be adjusted to be mild and delicate or potent and bitter. Add a natural sweetener to taste.
  - Sheila Humphrey in "The Nursing Mother's Herbal" recommends steeping 1 - 3 teaspoons of whole seed in 8 oz. of boiling water for 5 - 10 minutes, or longer.
  - Infusion, cold: Set fenugreek seeds in cold water and soak for several hours or over night. Strain off the liquid, refrigerate, and if desired, warm each cup gently before drinking.
  - David Hoffmann in "Holistic Herbal" suggests that mothers decoct (gently simmer) 1 1/2 teaspoons of slightly crushed fenugreek seeds in one cup of water for ten minutes, and, for a more flavorful taste, add 1 teaspoonful of aniseed to the decoction. Drink three times a day.

**Fenugreek combinations:**

Combinations of fenugreek seed with other herbs are popular in the US though virtually unknown in Europe. These combinations might as well be called “traditional American.”

1. Dosage may vary, depending on the size of the capsule and the quality of the herb. Generally speaking, mothers have to use a higher dosage than is recommended on the package. Start with a low dose and build up until you notice a difference in your milk supply (see general recommendations below). Maintain that dosage to see if your production remains stable. Continue taking the herbs for a few weeks, and then slowly wean from the supplements. Increase the dosage again if your supply
2. Combine fenugreek capsules with capsules of one or more of the following herbs: alfalfa leaves, red clover, marshmallow root, blessed thistle.

3. Choose the combination that best suits you by reading up on each of these herbs in their individual sections.

4. As with most supplements, capsules of herbal supplements should be taken before a meal.

   - **Fenugreek capsules**: Up to 3 capsules, 3 times per day.
   - **Alfalfa leaf capsules**: Up to 3 capsules, 3 times a day.
   - **Blessed thistle capsules**: Up to 3 capsules, 3 times a day.
   - **Marshmallow capsules**: Up to 3 capsules, 3 times a day.
   - **Red Clover**: Up to 3 capsules, 3 times a day.

**Mothers using fenugreek or other galactagogues long term**

While most mothers use fenugreek for only a short time to give their supply a boost, others depend on fenugreek and other herbs or foods to maintain their supply. Some mothers find that fenugreek or other herbs or foods lose their effect with time. The solution is to take other herbal galactagogues for a few weeks. You will probably find that your sensitivity to the original herbs or foods is restored at a later time.

**Goat's Rue (Galega officinalis)**

Goat's rue belongs to the family of the legumes.

Lactation consultants have noted that goat's rue seems especially helpful for mothers with insufficient glandular tissue of the breast.

Goat's rue balances blood sugar levels, possibly improving insulin sensitivity. If you are diabetic, discuss the use of goat's rue with your doctor. If you have symptoms of hypoglycemia, consult your doctor.

**Pregnancy:** Good general safety rating, but no extensive testing. Take goat's rue well beneath therapeutic dosage, for instance, one mild cup of tea a day. Mothers needing the medicinal effects of goat's rue during pregnancy might consider taking metformin instead, under the guidance of their doctor.

**Side effect:** Can lower blood sugar. It should not be used by diabetics except under the guidance of
Warning: The fresh plant is considered to be toxic, but the dried plant is safe to use as tea.

Sources: In bulk as tea or as tincture at special herbal pharmacies and online stores.

Dosage and Preparation:

- Tincture: Take 1 - 2 ml of tincture, or 10 - 15 drops, 3 times a day.
- Tea: Pour 1 cup of boiling water over 1 teaspoonful of the herb, steep 5 - 10 minutes. Drink 2 - 3 cups a day.

Hops (Humulus lupulus)

Hops flowers are used in brewing beer, and provide beer with its color and bitter taste. They are also the source of beer's relaxing, golden glow. Hops are estrogenic and a strong relaxant. Pillows stuffed with hops flowers have been used traditionally to promote sleep. Taken as tea, hops are very bitter.

Hops may be helpful in triggering the letdown reflex. A cup of hops flower tea is sometimes recommended in the evening to help a mother relax before bed.

Pregnancy: Hops is strongly hormonal; avoid it during pregnancy.

Allergy: Yes. Especially in people who farm and handle the herb.

Caution: Some herbalists suggest that hops can increase melancholic feelings, and should not be taken by persons prone to depression.

Caution: Mothers of lethargic babies should avoid large dosages of herbs that have strong sedative effects—such as hops—as these could possibly make their baby even more sleepy and unwilling to drink. Lethargic babies should be seen by their pediatrician as soon as possible.

Sources: Health food stores; herbal pharmacies; online stores.

Dosage and Preparation:

- Tea: Pour 1 cup of boiling water onto 1 teaspoon of the dried flowers, and steep for 10 - 15 minutes. Take one cup in the late afternoon, evening, or before bedtime.

Marshmallow Root and Leaf (Althea officinalis)
The marshmallow root, a Native American galactagogue, is often used in combination with fenugreek, red clover, alfalfa, or blessed thistle. Marshmallow contains mucilage, a slimy substance that soothes and calms inflammation in the intestines, stomach, upper respiratory tract, throat, and mouth.

**Caution:** Marshmallow root may delay the absorption of other drugs that are taken at the same time. It may lower blood sugar.

**Sources:** Health-food stores; herbal pharmacies; online stores.

**Dosage and Preparation:**

- **Tea:** Pour 1 cup of cold water over 1 tablespoon of root powder, and stir frequently while soaking for thirty minutes. Strain, and warm gently before drinking.
- **Decoction:** Per cup of water, add 1 teaspoonful of the chopped root, and simmer for 10 - 15 minutes. Take three cups a day. Sheila Humphrey recommends that if you are starting an herbal program, you may take higher dosages for a few days to kick-start your milk supply, i.e., take up to one handful of chopped root per cup of water.
- **Capsules:** Take 3 capsules, 3 times a day, in combination with other herbs such as fenugreek, blessed thistle, alfalfa, and red clover.

**Nettle (Urtica dioica)**

The stinging nettle is one of our most nutritious herbs. It is a good source for calcium and iron, magnesium, manganese, phosphorus, potassium, selenium, sulfur, zinc, copper, chlorophyll, fatty acids, folate, plus vitamins K, B1, B2, B3, B5, C, and E. Its minerals help build blood, and it is useful in the treatment of iron deficiency.

Nettle has an affinity for the kidneys, and a slight diuretic effect. Some women find that it helps reduce edema in pregnancy—but stay within normal dosage if you use it. Nettle is taken to treat conditions that in traditional medicine are associated with weakness in the kidneys such as bladder infections, eczema, bronchial congestion, asthma, arthritis, and rheumatism. It is also a natural antihistamine, and is used in treating hay fever, allergic asthma, and other allergic conditions.

In various medical traditions, nettle is taken the first week after birth. Nettle helps the body restore blood that was lost during childbirth. In Asian medicine, the loss of only a few ounces of blood is thought to contribute to postpartum fatigue and depression, as well as to low milk supply.

Nettle also contains high levels of chlorophyll, and some lactation experts believe that chlorophyll is particularly conducive to building milk supply after birth. (Dark green leafy vegetables are also rich in chlorophyll.)
Allergy:Rare.

Warning: Use caution with nettle if you have diabetes. A study on rabbits showed an increase in blood sugar levels.

Sources: Health-food stores; herbal pharmacies; online stores.

Dosage and Preparation:

• Tea: Pour a cup of boiled water onto 1 - 2 teaspoonfuls of the dried herb, cover and steep for 10 minutes. Take 3 cups a day. To kick-start milk production, double this dosage, and take up to 6 cups a day.

• A mild tea is made by steeping one teaspoon of the dried herb for only 1/2 minute in a cup of boiling water. Take three cups a day. (Even the mild tea has a dark-green color and a rich taste.)

• Infusion: In a quart jar, add boiling water, cover, and infuse overnight. Use a large handful of nettle. Combine with other lactogenic herbs, such as alfalfa, goat's rue, dandelion leaf, red clover, vervain, and the umbel seeds.

• Tincture: Nettle is frequently an ingredient of in lactation tinctures. Follow the dosage directions on the package.

Red Clover (trifolium pratense)

Red clover is another highly nutritious herb. It has a wide range of usages in traditional medicine, including use as a poultice to treat cancer, to reduce rheumatic pain, and to soften hardened glands.

Like many galactagogues, red clover reduces fluid retention, helps expectorate mucus from the lungs, is antispasmodic, and a sedative, useful for cramps and coughs.

Red clover, especially the sprout, is estrogenic; pastured animals that overdose on this plant become infertile-as if they are taking an estrogen-based birth control pill. The herb's phytoestrogen may be involved in its lactogenic properties.

As a galactagogue, the flowers are taken as a capsule, together with supplements of fenugreek, alfalfa, and blessed thistle. The flower is frequently taken together with other herbs as an infusion. Use red clover with moderation during pregnancy. If you have red clover growing near you, use the fresh flowers in salad.

Pregnancy: Use in moderate amounts, as one ingredient in an herbal tea mixture, for instance.
Caution: Avoid red clover if you take blood-thinning drugs, aspirin, or hormonal birth control.

Sources: Health-food stores; herbal pharmacies; online stores.

Dosage and Preparation:

- Capsules: 2 - 3 capsules, 3 times a day, in combination with other herbs.
- Tea: Pour 1 cup of boiling water onto 1 - 3 teaspoons of the dried flowers, and steep for 10 - 15 minutes.
- Infusion: Add the herb to a mixture of other lactogenic herbs and infuse for several hours or over night.

Red Raspberry Leaf (Rubus idaeus)

The raspberry vine is native to both America and Europe. The roots, leaves, and berries have long been appreciated for their nutritive value. Native Americans gave raspberry leaves to women and animals during birth to strengthen and speed delivery, and we learned this virtue from them. Today, pregnant women take red raspberry leaf to tone the uterus, and to prevent hemorrhaging during birth.

Red raspberry leaf tea provides an excellent source of minerals and vitamins during pregnancy. It is thought it may help build breast tissue during pregnancy as do all highly nutritious lactogenic teas. Humphrey records that it does not appear to contribute to over-supply after birth. Red raspberry leaf is said to bring on the milk and make it richer.

Caution - low milk supply: Raspberry leaf tea is astringent (tightens and constricts bodily tissues) and taken as a “single” can be anti-lactogenic for women who are sensitive to this effect. For these women, it is probably safe to use red raspberry leaf as one ingredient in a lactation tea mixture.

Pregnancy caution: Red raspberry tea may stimulate the uterus. To be on the safe side, build up dosage slowly, beginning with one cup per day for a week, two cups per day next week, and so on up to four cups per day. Consult your doctor before taking raspberry tea if you are at risk for miscarriage.

Sources: Health-food stores; herbal pharmacies; online stores.

Dosage and Preparation:

- Mothers take up to a quart of red raspberry leaf tea per day during pregnancy. See above. Red-raspberry tea is said to promote milk production the first week postpartum, though stinging nettle or alfalfa may be the better herb if there is risk of low milk supply-see above.
- Medicinal tea: Pour 1 cup of just-boiled water over 2 teaspoons of the dried leaf and steep for 5 minutes. Sweeten with a natural sweetener to taste. Build up slowly to 4 cups a day during
pregnancy

- Red raspberry leaf as a mild beverage: Steep 1/2 teaspoon of dried leaves in 1 cup of just-boiled water for 1 - 3 minutes. Sweeten with a natural sweetener to taste.

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Anise, caraway, cumin, dill, fennel, and lovage, (used as a galactagogue in France), grow clusters of small flowers, called umbels. Each tiny flower is linked by a small stem to a central, larger stem. These small groups are linked to a still larger stem, forming larger clusters. In traditional medicine, umbels are said to have an affinity for breasts. The shape of the umbel reminds one of milk glands, connected by milk ducts to the areola; such look-alike factors can play a role in the belief that a plant has certain effects. In the case of umbel seeds, experience shows that they do indeed increase milk production and improve the let-down. In one study, umbel seeds tested on rats generated greater mammary tissue growth than was seen with rats on a control diet.

Umbel flowers produce small, aromatic seeds that are used as digestives, carminatives, and, as galactagogues throughout the world. As spices, these seeds are part of the diets of peoples across Eurasia. However, because some umbel plants and seeds are toxic, wild harvesting is not advisable unless you are very knowledgeable.

Umbel seeds share the following properties:

- They are estrogenic
- They contain oxytocin-like substances
- They ease colic and flatulence - they may ease a baby’s colic through the mother’s milk
- They promote digestion and possibly improve the let-down.

Because they are anti-spasmodic they aid in the treatment of bronchitis and bronchial asthma.

**Pregnancy:** Western medicine warns against taking large amounts of anise and caraway during pregnancy. Ayurvedic medicine from India warns against taking large amounts of all umbel seeds during pregnancy.

**Allergy:** Occasional.

**Caution:** Traditional Chinese Medicine (TCM) says that “warming” herbs, such as the umbel seeds should not be taken in large amounts by mothers who tend to develop breast infections. According to TCM, these mothers typically have dry skin and hair, and tend to get rash or eczema.
Caution: In Germany, a lactation tea has been produced for decades by Weleda containing equal amounts of stinging nettle, fennel, anise, and caraway seeds. The producers warn that taking more than three cups a day can lead to loose stools in the mother and baby.

Sources: Health-food stores; herbal pharmacies; online stores.

Dosage and Preparation:

- Umbel seeds can be taken individually, together, or combined with other herbs to make a lactation tea. They can be infused overnight in cold or hot water. Traditionally, they can be decocted, or steeped as tea.
- Umbel seed tea: Gently crush 1-2 teaspoons of the seeds, and add one cup of boiling water. Cover and steep for between 5 - 20 minutes. Longer steeping produces a more potent tea. Sweeten to taste.
  - Umbel seeds as a beverage: Steep 1 - 3 minutes for a milder taste and effect.
- Infusion: In Eastern Europe, umbel seeds such as anise, given to breastfeeding mothers to promote milk production, are covered with boiling water and infused for four hours.
- In India, umbel seeds are placed in cold water and soaked overnight. The liquid is strained and gently warmed before drinking. This way, none of the volatile, medicinal oil is lost to steam.
- The usual recommended dosage is 3 cups a day. To increase milk production, take up to 6 cups a day initially, as necessary, observing your reaction, and your baby's reaction. If you or your baby get loose stools or become gassy, reduce the dosage or try other galactagogues.
- To treat flatulence, drink umbel seed tea slowly before meals, or take it in sips throughout the day.

Valerian (Valeriana officinalis)

Valerian root is not a galactagogue, but it is listed in the MOBI Herbal because it can be useful to mothers suffering from sleep deprivation.

Valerian has been shown to improve sleep quality—though it does not reduce waking times during the night. In one study, best results were achieved after four weeks of taking an extract of the whole valerian root. Other studies, based on commercial brand products, did not show significant benefits.

Mothers who are sleep-deprived because their baby frequently wakes during the night may find relief with valerian tincture. Even when waking to feed her baby, a mother will remain physically and emotionally relaxed and will easily slip back into deep sleep. If she takes the “right-for-her” dosage, she will not feel drugged or lethargic, but rather, relaxed and refreshed.

If you are suffering from sleep deprivation or from stress, it may be wise to take a vitamin-mineral supplement and an additional vitamin B-complex, vitamin C, magnesium, and zinc supplement. The
body depends on these nutrients during times of stress and they become depleted.

**Pregnancy:** Do not use valerian during pregnancy except under the guidance of your health care provider.

**Warning:** Valerian should not be taken by persons who also drink alcohol, or take sedatives, or antidepressants, including the herbal antidepressant St. John's Wort.

**Caution:** A review of studies has shown that valerian is a potent but safe sedative that does not lead to addiction. Like all sedatives, however, it should used cautiously while caring for a baby.

**Caution:** As with all sedatives or antidepressants, be extra careful when driving or using machinery.

**Caution:** If you co-sleep with your baby, make sure to arrange your sleeping positions so that there is no danger of your baby suffocating in bed.

**Dosage and Preparation:**

- Discover your individual dosage. Taking too large a dosage can lead to a drug-like sleep with the mother feeling as though she has a hang-over next day.
- With herbal tinctures, the dosage can be fine-tuned. Although 30 - 40 drops of valerian before sleep is the recommended dosage, 3 - 10 drops may be sufficient for mothers who respond more sensitively to herbal medicinals.
- Take valerian before going to bed if you are taking it specifically to help you sleep more deeply. Take it in small dosages during the day if you are using it to help calm your nerves. Do not overdose.
- It may take up to four weeks for the herb to unfold its full effect.

**Verbena (Verbena - various species)**

Verbena, also called vervain, or lemon verbena, was a holy herb of women in ancient days. It is an estrogenic herb, a liver tonic, and a digestive. It is calming, mood-lifting, and is said to prevent depression from developing. It is particularly useful after a viral infection, such as a cold or flu to prevent exhaustion from lingering, and to restore a strength. Because verbena fortifies the nerves while relieving tension, it is a nervine tonic. It is also an antispasmodic. Verbena helps relieve tension headaches, menstrual cramps, and asthma.

All species of verbena are said to promote milk production.

**Pregnancy:** Some experts suggest avoiding verbena during pregnancy. Verbena’s effect on the uterus is
not understood.

**Warning:** Verbena may interfere in the action of medication for blood pressure or hormone therapy.

**Warning:** Although traditionally a galactagogue, Traditional Chinese Medicine sees verbena as having a drying property. According to TCM, when verbena is over-used regularly it may decrease supply. Breastfeeding mothers should cautiously alternate verbena with other teas or beverages.

**Sources:** Health-food stores; herbal pharmacies; online stores.

**Dosage and Preparation:**

- **Medicinal tea:** Pour 1 cup of boiling water onto 1 - 3 teaspoonfuls of the dried herb and steep for 10 - 15 minutes. Drink three times a day.
- **Verbena tea as a beverage:** Verbena has a delightful taste. A light tea is made by steeping 1/2 - 1 teaspoon of dried herb for 1 - 3 minutes in a cup of boiled water. Add stevia or other natural sweetener to taste.