

Supplement Sampler

Natural Galactogogues

Galactogogues are herbs or medications used to stimulate an increase in milk production. Because breast milk production is maintained by local feedback mechanisms (autocrine control), more frequent and thorough emptying of the breasts typically results in an increase in milk supply. Galactogogues should be reserved for use after both a thorough evaluation for treatable causes of low milk production (for example, maternal hypothyroidism or medication) and increased frequency of breast emptying have not been successful. Other common indications for galactogogues include adoptive nursing, infant illness or prematurity, or maternal/infant separation for other reasons.

Throughout world history, women have used certain foods and plants to enhance their milk supply. Many common recommendations today come from a variety of cultures as well as centuries of midwifery practice. Little clinical research exists at this time to support their use; however, traditional and historical use suggests safety and efficacy. Teas and other herbal products for milk production are widely available and used by the general public. In general, lactating women should be discouraged from using herbs from China, as the risk of toxic exposure has been documented.

Most Common Herbs

- **Fenugreek** (*Trigonella foenum-graecum*) is the most commonly used herbal galactogogue and is a member of the pea family. The FDA lists it as GRAS (generally regarded as safe). It has been used around the world for centuries. It has been suggested that fenugreek may affect milk production because the breast is a modified sweat gland, and the herb is known to stimulate sweat production. The herb is usually discontinued once milk supply has reached an appropriate level, but it can be safely used long term.

Huggins reported the use of fenugreek in 1200 women under her care who had increased milk supply in 24-72 hours.

- Huggins KE: Fenugreek: One remedy for low milk production.
<http://www.breastfeedingonline.com/fenuhugg.shtml>

Two recent preliminary studies reporting effectiveness include:

- Swafford S, Berens P: Effect of fenugreek on breast milk volume. Abstract, 5th International Meeting of the Academy of Breastfeeding Medicine, September 11-13, 2000, Tucson, AZ.
- Co MM, Hernandez EA, Co BG: A comparative study on the efficacy of the different galactogogues among mothers with lactational insufficiency. Abstract, AAP Section on Breastfeeding, 2002 NCE, October 21, 2002.
- **Goat's Rue** (*Galega officinalis*) is widely used as a galactogogue in Europe based on the observation that it increased milk supply in cattle in the early 1900's. No human trials for effectiveness have been done; however, limited animal studies have shown a milk supply increase of up to 50%.
- **Milk Thistle** (*Silybum marianum*) has been historically used in Europe and is also known as St. Mary's thistle. Early Christians thought that the white veins on its leaves represented Mary's milk



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flowering. This herb has a safety rating of 1 from the American Herbal Products Association, meaning that the herb is safe for human consumption, even by lactating women.

Doses of Traditionally Used Herbs

- **Fenugreek:** 1-2 grams up to three times daily. It can also be taken as a tea of ¼ tsp seeds steeped in 8oz of water for 10 minutes, taken 3 times daily. Often taken in combination with other herbs such as Blessed Thistle.
- **Goat's Rue:** Usually used as a tea. 1 tsp dried leaves steeped in 8oz of water for 10 minutes taken 2-3 times daily.
- **Milk Thistle:** Use as a strained tea. Simmer 1 cup crushed seeds in 8oz water for 10 minutes. Take 2-3 cups daily.
- **Blessed Thistle leaves:** (*Cnicus benedictus*) tincture, 20 drops of tincture 2-4 times daily or 3 capsules 3 times per day. For use as a tea, pour one cup of boiling water over 1.5 to 2 grams of crushed leaves and steep for 10 to 15 minutes. Drink 1 cup 2-3 times per day.
- **Borage leaves:** (*Borago officinalis*) Half a cupful of infusion at each nursing, or eat flowers in salad.
- **Fennel and Barley Water:** (*Foeniculum vulgare* and *Hordeum* genus) Prepare barley water by soaking 1/2 cup pearled (regular) barley in 3 cups cold water overnight or by boiling for 20 min. Strain barley and discard or add to soup. Heat only what you need and store the rest in the fridge. Pour 1 cup of barley water over 1 teaspoon fennel seeds and steep for no longer than 30 minutes. This also eases afterbirth pains.
- **Hops:** (*Humulus lupulus*) Beer is a convenient source. Can also use tea or infusion.
- **Alfalfa:** (*Medicago sativa*) taken as 4 capsules 3 times daily. Sometimes prepared in homeopathic remedies with *Lactuca Virosa* or used as a tea.
- **Anise/Aniseed:** (*Pimpinella anisum*) Crush seeds just before use. Pour 1 cup of boiling water over 1-2 tsp of seeds. Let stand covered for 5-10 minutes. Drink 1 cup 2-3 times daily. Also thought to be helpful for infantile colic.
- **Raspberry leaf** (*Rubus idaeus*) Tea: Steep 1-2 teaspoons dried raspberry leaves in 1 cup of water for 5 minutes. Add honey or lemon as desired. Drink 1-2 cups up to 3 times per day
Capsules: 500-600 mg dried raspberry leaf 2-4 times per day.
 - Johnson, R. L., & Foster, S. (2010). *National Geographic guide to medicinal herbs: The world's most effective healing plants*. Washington, D.C.: National Geographic.
- **Shatavari** (*Asparagus racemosus*) Tea: Simmer 1 tsp dried root in 1 cup water for 15 minutes. Strain. Drink 1-2 cups per day. Capsule: 500 mg 1-2 times daily
 - Johnson, R. L., & Foster, S. (2010). *National Geographic guide to medicinal herbs: The world's most effective healing plants*. Washington, D.C.: National Geographic.

Side Effects/Cautions:

- **Fenugreek:** Mothers report side effects including increased perspiration and a maple syrup smell to urine and sweat. According to Huggins, a few mothers developed diarrhea with high doses, and some have experienced asthma exacerbation. Use during pregnancy is not recommended and it has been known to lower blood sugar. Two cases of fenugreek allergy have also been reported. There has been one case report of a 30-week premie with suspected GI bleeding after his mother started taking fenugreek. It is not known if the herb played a role.
 - Hale T. Medications and Mothers' Milk, 10th Edition. Pharmasoft Medical Publishing, 2006, p.277-279.



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- **Goat's Rue:** Also used as a hypoglycemic agent in Europe and South America. There was one report of possible adverse reaction in two breastfed neonates whose mothers drank a tea containing extracts of licorice, fennel, anise, and goat's rue. This particular tea was not tested for contaminants.
 - Rosti L, Nardini A, Bettinelli ME, Rosti D: Toxic effects of an herbal tea mixture in two newborns. *Acta Paediatr* 83:683, 1994.
- **Blessed Thistle:** Should not be used during pregnancy. May cause vomiting and diarrhea in large doses (more than 5 grams per dose).
- **Borage leaves:** Also acts as a mild laxative. The American Herbal Products Association Botanical Safety Index recommends that borage not be used during pregnancy or lactation due to potentially toxic effects. If a mother decides to use this herb, it should be prepared by an experienced herbalist.
- **Alfalfa:** Not recommended for people taking blood thinning agents. Use with caution in persons with lupus or other auto-immune disorders.
- **Anise:** Not for use during pregnancy. Mothers taking estrogen should not take this herb, as it has some estrogen-like activity. Do not confuse with Japanese Star Anise (*Illicium anisatum*) or Chinese Star Anise (*Illicium verum*), both of which can pose risks to infants.

Galactagogue Brew:

(S Weed)

1 oz dried Blessed Thistle or Borage leaves
1 oz dried Raspberry leaves or Nettle leaves
1 teaspoonful of any one of these seeds:
Anise, Cumin, Fennel, Caraway, Coriander, Dill

Place leaves in a half-gallon jar and fill to the top with boiling water. Cap tightly and let steep overnight. Strain out herbs and refrigerate liquid until needed. As you get ready to nurse, pour off one cupful of the brew and heat it almost to a boil. Pour it over a teaspoonful of any of the aromatic seeds listed above. Let it brew and cool for 5 more minutes before drinking. This brew can be drunk up to 2 quarts daily.

Other Common Teas or Infusions

Comfrey, Raspberry Leaf, Nettles, Red Clover

Herbs to Avoid

Peppermint is the herb to avoid the most as it can cause a reduction in milk supply. Black walnut, lemon balm, sage, oregano, and parsley are also cited sometimes as herbs that reduce milk supply. These can actually be used to wean off breastfeeding.

Foods

- Foods generally thought to increase milk supply include: Apricots, asparagus, green beans, carrots, sweet potatoes, peas, pecans, and all leafy greens, esp. beet greens, parsley, watercress, and dandelion greens
- Oatmeal: A daily bowl of oatmeal is traditionally used to increase milk supply. One possible explanation is that oatmeal is a good source of iron, and low iron levels can result in low milk supply.



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- Beer: A polysaccharide in barley causes increases in prolactin levels. No systematic studies have been conducted to evaluate the effects of beer on lactogenesis, and short term studies have shown decreased milk consumption in infants whose mothers consumed moderate amounts of alcohol.
 - Koletzko B, Lehner F. Beer and Breastfeeding. *Adv Exp Med Biol.*2000; 478: 23. Mothers can get the benefits of barley without the side effects of the alcohol by consuming non-alcoholic beer. Brewer's yeast is also debatable as a galactogogue.

Other Sources

1. Academy of Breastfeeding Medicine Protocol #9: Use of galactogogues in initiating or augmenting maternal milk supply. Available online at: <http://www.bfmed.org/index.asp?menuID=139&firstlevelmenuID=139>.
2. Weed, Susan. *Wise Woman Herbal for the Childbearing Year*. Ash Tree Publishing, Woodstock, NY, 1986.
3. Low Dog T: Lactogogues. Presentation at International Lactation Consultants Association (ILCA) Annual Meeting, August 2001.
4. Gabay MP: Galactogogues: medications that induce lactation. *J Hum Lact.* 2002 Aug;18(3):274-9. Review.
5. Lawrence RA, Lawrence RM: *Breastfeeding: A Guide for the Medical Profession*, 5th ed. St. Louis, Mosby, 1999.
6. McGuffin M, Hobbs C, Upton R, Goldberg A (eds): *American Herbal Products Association's Botanical Safety Handbook*, Boca Raton, FL, CRC Press, 1997, p107.
7. US Food and Drug Association: www.fda.gov/bbs/topics/answers/2004/anso1292.html
8. Herbal Remedies for Increasing Milk Supply www.kellymom.com .
9. Jensen R. Fenugreek-overlooked but not forgotten. *UCLA Lactation Alumni Association Newsletter.* 1992;1:2-3.

Disclaimer:

The health benefits from multi-colored whole food eaten with a smile with family and friends significantly trumps any product found in a bottle, be it a supplement or drug!

Brought to you by Jill Mallory MD and your colleagues in the UW Integrative Health Program, Department of Family Medicine and Community Health. Updated in 2017 by Sabrina Martinez, MS-4, and Sagar Shah MD, also in the UW Integrative Health Program.

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