Herbs for Lactation

Sheila Kingsbury, ND, RH (AHG)



ne of the most common questions I get from new mothers is: "Am I making enough milk?" The concern over whether or not there is enough milk has snuck

into the consciousness of new mothers, even when everything is going well. Sometimes it comes from a well-meaning grandmother or father who has no other explanation of why the baby is crying. Planting this seed of doubt often leads to excessive anxiety on the part of the mother, which can lead to other problems with bonding and successful lactation. Care and sensitive encouragement of a new mother and baby can go a long way toward positively affecting hormones that govern milk supply. Making sure the baby is latching properly is also critical. Beyond these methods, herbal or pharmaceutical galactogogues may be considered (Marasco et al 2008). The goal of any approach to increasing milk supply should address the physical, social and hormonal dynamics in order to have the most success.

Successful Latching

Generally, if the mother is experiencing pain or having a delay in milk production in the first five days, checking the latch is absolutely the most important first step. Often, solving latch problems makes everything better. It is critical that a new mother is supported with good breastfeeding education prior to and at the birth in order to promote good positioning and an effective latch. A lactation consultant's assessment and advice can be very helpful in this respect. The lactation consultant focuses on the physical first: the latch itself, any anatomical reasons why the latch may not be successful, and how to improve it. Essentially, the baby's lips need to be opened wide (120 degrees) and not curled under, with the tongue cupping the nipple and part of the areola disappearing into the mouth as well. The infant should not be hanging just on the nipple. The infant should also be facing the mother, tummy to tummy, in most nursing positions. Once the mature milk comes in on day three or so (after colostrum), the swallowing of milk should be somewhat audible; until then, the temporal and masseter jaw muscles can be seen moving rhythmically as the infant suckles.

Social and Emotional Influence on Oxytocin

The social aspects of breastfeeding are also very important to the production of milk. Tending to the mother and child affect hormonal influences that not only can increase milk supply, but also have wide-ranging effects on the bonding and nurturing aspects of the mother/baby relationship. These aspects, together with an effective latch, encourage higher levels of both oxytocin and prolactin, the dynamic duo of milk



Dr. Sheila Kingsbury is a Naturopathic Physician, Lactation Consultant and **Registered Herbalist with** the AHG. Dr. Kingsbury is a 2003 graduate of Bastyr University's naturopathic medicine program and has been in clinical practice in Kirkland, Washington since 2003. In her clinical practice she focuses on pediatrics and women's health. She is the Chair of the Botanical Medicine department at Bastyr University and an associate professor, teaching courses in Pediatrics, Lactation, Botanical Medicine and the History and Traditions of Herbal Medicine. She focuses on Western and Ayurvedic herbal traditions and homeopathy in her clinical experiences and in her teaching. She is committed to the education and mentorship of herbalists from a variety of backgrounds and has provided herbal internships for her students since 2005.

THERAPEUTICS

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production (Marasco et al 2008). Oxytocin is the hormone that contracts the uterus after birth; it also contracts the milk ducts so that the milk can be emptied more efficiently as the baby suckles. Bonding, sleeping, caressing the baby, hearing the baby cry, and being surrounded by loving family and friends all increase oxytocin.

The Role of Prolactin

Prolactin, the hormone that stimulates milk production, is released by the anterior pituitary gland. Prolactin levels increase dramatically about two weeks after delivery. These hormone levels can be affected during that time frame, but is very difficult to do so afterward. Studies have found, however, that levels of prolactin in the blood do not always correlate with increases in milk supply. For example, mothers who have nursed more than one child tend to have lower levels of prolactin, but they produce more milk. This is presumably due to an increase in receptor sites. Some research suggests that increases in prolactin receptor sites in the two weeks after delivery ensures a higher quantity of milk. Research has not looked at what substances increase the receptor sites but rather at increases in quantity of milk (Zuppa et al 2010). Presumably one leads to the other, but not all galactogogues have the same effect from person to person; clearly there are some physiological components that we don't

understand. Pharmaceutical galactogogues act either by blocking hypothalamic dopaminergic receptors or by inhibiting neurons that produce dopamine, which inhibits secretion of prolactin. It is also possible to suppress the prolactin inhibiting factor, which is an additional molecule designed to regulate prolactin.

Herbal Actions on Milk Supply

When it comes to herbs and lactation, there are only a few medicinal actions that have been the focus of most herbal treatments I've seen in the western tradition. The most successful and widely used herbs used for milk supply have been directly associated with oxytocic effects or are listed as having a galactagogue effect, whose mechanism is less understood. These and a few others on the list often exert an influence on the gastrointestinal system via carminative, digestive or nutritive actions. A similar connection is found with prolactin and oxytocin in that these hormones increase digestive secretions as well. Improved digestion may improve milk quality, but the connection to milk quantity is less understood. Many cultures worldwide rely on traditional postpartum herbs that are also carminatives, so this connection is worth researching more deeply.

Finally, herbal nervines may also be useful. As discussed above, a mother who is more relaxed and feels cared for produces more milk.

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Studies on stress as a cause of a reduction in milk supply have produced conflicting results, and herbal nervines have not been directly researched for their effects on milk supply (Groer 2005). In my own practice I generally pair nervines with more reliable galactogogues.

Herbal Galactogogues by Category

Oxytocics

Trigonella foenum-graecum (fenugreek) *Galega officinalis* (goat's rue) *Cnicus benedictus* (blessed thistle)

In my experience, fenugreek, galega and blessed thistle are the most reliable herbs to use for increasing milk supply. I generally start with encapsulated whole ground fenugreek seed, around 1500 mg three to four times a day. More is not always better with fenugreek. I find that a much larger dose can lead to stomach upset and the familiar maple scent on the skin. These are usually minor discomforts, but the increased amount doesn't usually translate to increased milk supply. Many studies support the use of fenugreek as a galactogogue (Zuppa 2010, Tiran 2003, Betzold 2004, Mills 2005).

With fenugreek, I expect to see some increase in supply within a couple of days. That is, of course, if there is not some other reason besides hormonal influences affecting lactation. If fenugreek alone is ineffective, I add galega (aerial parts) and blessed thistle (aerial parts). Some women I have worked with respond significantly to galega or blessed thistle, while fenugreek had no effect. Depending on how much time I have to work with a client, I might just start off with all three in some way, but when you formulate with multiple herbs it gets more difficult to keep the fenugreek dose high enough to make an impact. There is not as much, if any, research on galega and blessed thistle for lactation, but the records of historical use abound and I have clinically seen them work with no reported side effects. I generally use them encapsulated as well, but occasionally I'll use a tincture formulation along with fenugreek capsules. I use galega at 70-500 mg, usually

closer to the high end of the range. For *Cnicus*, traditional references suggest 4 g twice a day but I find two 500 mg capsules two to three times a day should be sufficient. In my experience, tinctures are not as effective, but may be administered in equivalent dose ranges, with special attention given to limit the amount of alcohol consumed by the nursing mother. Usually tincture doses are in small enough amounts that the alcohol content isn't a major issue.

Digestives

Foeniculum vulgare (fennel) Pimpinella anisum (anise) Carum carvi (caraway) Humulus lupulus (hops) Silybum marianum (milk thistle)

These herbs have many historical references for their use with lactation. (Mills & Bone 2005, Hoffmann 2003). Many cultures use carminatives, especially from the *Apiaceae* family, to assist with lactation. The physiological links are not entirely clear. I have found them less reliable than fenugreek, galega and blessed thistle, but they are remarkably helpful as supporting herbs. They are effective in easing

Below: Trigonella foenum-graecum (fenugreek) seeds. Photo by Humbads.



the slight digestive discomforts that fenugreek sometimes causes. They also seem to help with colic symptoms in infants who receive them through breastmilk. Many hormones in the digestive system are affected by oxytocin and prolactin, and these herbs may improve digestion which is crucial for the mother to create milk. In the United States, fennel is the most popular additive to lactation teas, but in other countries around the world, anise and caraway are chosen. Hops have also been traditionally used as a galactogogue. Fennel, anise and caraway can be given encapsulated with other oxytocics, between 70-500 mg about two to three times a day. Single capsules of fennel have been reported to have an effect as well, but I rarely rely on it solely. Anise and caraway are more commonly used in food form, but can be used at the general range we also use for fennel.

Hops aids digestion, relaxes frayed nerves and improves sleep, all of which are shown to improve milk production. Some women don't like its bitter taste, however. This is how beer got associated with improving milk production, but I find that the tea works better and reduces the amount of alcohol in the milk. I use hops mainly in combinations at a dose range of 50-100 mg two to three times a day.

I have heard several times that milk thistle also improves milk supply. It, too, is a good digestive herb and improves the fat quality of the milk as well. It supports the liver, helping with hormone metabolism, and can potentially help resolve hormonal imbalances. The flavolignans in milk thistle can potentially have a phytoestrogenic effect on estrogen receptors (ER2) and limit the suppression estrogen would normally have on milk production (Zuppa 2010). I have not found it to make any dramatic increases in lactation, but I consider it a good support. It can be given ground and sprinkled onto oatmeal or it can be powdered and encapsulated. I find these forms work best. I prefer using separate 500-600 mg milk thistle capsules, one to two times per day, in conjunction with other galactogogue treatments.

Nutritives

Althaea officinalis (marshmallow) *Avena sativa* (oats)

Oats and marshmallow are nutritives that support adequate mineral intake for mothers to make good quality milk. Marshmallow also



Opposite: *Althaea officinalis* (marshmallow). Photo courtesy of 7Song

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Below: Avena sativa (oats). Photo courtesy of Rosalee de la Forêt helps keep the milk flowing well by preventing clogged ducts and subsequent infections. Its mucilage content helps keep the milk emulsified. Oats provide many minerals and have the added bonus of restoring the nervous system. Oats are useful for frail nervous systems agitated from lack of sleep and exhaustion. I use all forms of



oats, but I prefer dried oat top cold infusions (one cup whole oat tops left in one quart water overnight, strained and then sipped throughout the day) or as a glycerite, 1 to 5 mL twice a day. In my experience, these forms extract most of oats' mineral and nutritive content. Eating minimally processed oats is another way of accessing the herb's nutritional content.

Nervines

Melissa officinalis (lemon balm) Humulus lupulus (hops) Avena sativa (oats)

As mentioned earlier, addressing the nervous system with a variety of herbs can also contribute to an increased milk supply. When a woman is relaxed and calm, her oxytocin levels go

up. This effect should be maximized as much as possible in the first few weeks after birth to ensure sufficient lactation. I rarely use nervines alone for milk supply, but I do employ them if all the mother needs is some nervous system restoration. I do often use them in conjunction with the oxytocic galactagogues mentioned above or in combination with herbs discussed here. For the nervine effects of these herbs, I recommend 1/2 to 1 mL in glycerite form of each in combination, two to three times a day.

Lemon balm has a history of traditional use for postpartum women. It is uplifting and joyful both in scent and in action. Fresh lemon balm tea is ideal if available. Lemon balm is also known for its mild effects on the thyroid and is used in hyperthyroid situations. Postpartum women have an increased risk for a transient thyroiditis that, if not addressed, can result in a hypothyroid state. Although not yet researched, lemon balm may gently help prevent the onset of thyroiditis in these situations. Meanwhile, the gentle calming and uplifting effects of this herb are useful for general recovery and for preventing post-partum depression as well.

In addition to their actions discussed above, hops and oats are gentle nervines. I combine them in teas or glycerites with other nervines such as rose, lavender and sometimes chamomile. I use these in small amounts as well - generally 1 mL or less per herb per dose, one to three times a day, depending on the psychological picture of the mother in terms of anxiety or depression. These can also be combined with fennel, galega and blessed thistle as a tea to complement fenugreek supplementation while adequate milk supply is reached.

Once milk supply and breastfeeding are stabilized, generally the treatment can be discontinued, as the body will usually maintain its milk supply levels from there. The key, of course, is that the infant must be successfully latching and feeding solely from the breast and gaining well before the treatment is discontinued. If no improvement is seen within a week, then other methods should be employed and careful evaluation will be needed to get to the source of the problem.

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