

Herbals and Breastfeeding

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Which herbals are safe to take while breastfeeding? Here's a guide to popular herbs and their potential risk to nurslings.

Herbal medications are used to treat a variety of ailments. Unfortunately, consumers often self-medicate without consulting an appropriate healthcare professional. This can be an unwise decision with serious consequences, especially in breastfeeding mothers.

Although many drugs, including herbal medications, do not enter the breast milk to any significant degree and are often undetectable in milk, safety cannot be implied. Breastfeeding mothers who use herbals should consult with a physician or pharmacist who has information concerning the safety of herbal medications. Only after careful consideration should the mother be started on these medications or breastfeeding withheld. One important consideration is that stopping or temporarily stopping breastfeeding is not always the best answer.

Presently, the number of postpartum mothers who are breastfeeding is increasing. According to the Ross Laboratories Mothers' Survey, there has been a significant increase in the initiation of breastfeeding and in maintaining nursing at six months of age.¹ The benefits of breastfeeding greatly

surpass those benefits achieved by formula feeding. These benefits are two-fold, improving the health of both nursling and mother. Nurslings will tend to have a lower incidence of ear, respiratory, and gastrointestinal infections due to antibodies that are transferred from mother to the child through breast milk.²⁻⁴ Furthermore, breastfeeding also decreases the risk of other diseases such as childhood diabetes (juvenile diabetes),⁵ Crohn's disease,⁶ and lymphomas.⁷ One of the most important benefits of breastfeeding is the enhancement of the emotional bond that develops between the mother and the child. Breastfeeding tends to reduce stress in the infant, gives the infant a sense of security, and provides maternal comfort.

COUNSELING NURSING MOTHERS

If possible, always advise a nursing mother to pursue nonpharmacological therapy to treat her symptoms. When this is not an option and true medical intervention is necessary, certain techniques can be employed to decrease the risk of

potential side effects to the nursling.

- The nursing mother should take oral medications immediately following nursing, or right before the infant's longest sleep to avoid nursling exposure to a

drug at its peak plasma level.

- The nursing mother should take the lowest dose possible. She should always avoid extra-strength or long-acting formulations. Combination products present a special hazard.

- The nursing mother should know the use and side effects for all constituents of a formulation before using it. She should be aware of potential side effects and she should be able not only to monitor herself for side effects, but also to monitor the nursling for these side effects or unusual changes in behavior.⁸

GALACTOGOGUES

Chaste Tree: Chaste tree fruit from the species *Agni Casti Fructus* is used as an alcoholic extract traditionally to treat dysmenorrhea by regulating the menstrual cycle. Chaste tree fruit is believed to exert a dopaminergic influence, thus inhibiting prolactin secretion.⁹ Like Bugleweed, Chaste tree fruit has also been used to relieve symptoms of mastodynia associated with nursing.

No special cautions are known with regard to Chaste tree fruit. However, some people taking Chaste tree fruit have developed itching and rash.¹⁰ If used during nursing, Chaste tree fruit may affect milk production and subsequently nursing performance. Furthermore, Chaste tree fruit extract contains a high alcoholic content of approximately 50%–70%. Despite the lack of absolute contraindication to breastfeeding, Chaste tree fruit should be used with due caution, observing for any negative influence on nursing performance.

Fennel: Fennel has been used historically as a galactagogue (to stimulate milk production).¹¹ It has also been used for gastrointestinal disorders and as an expectorant. The dose of the oil is 0.1–0.6 mL which is equivalent to 100–600 mg of herb. Side effects include allergic reactions and dermatitis. There are no known contraindications for fennel oil.¹⁰

Fenugreek: Fenugreek is used internally to stimulate appetite. It has also been used as external poultice to control inflammation. Fenugreek has been used fairly extensively by lactation consultants to increase milk production in nursing mothers. It is available in alcohol based liniment formulations, ointments, gels, or oils. A bath additive product also exists. The recommended dose of fenugreek is 6 grams if taken orally, or 50 grams mixed in eight ounces of water applied to the area of inflammation. The major side effect of fenugreek are skin reactions following repeated exposure to the external products. No known contraindications limit the use of fenugreek.¹⁰ However, fenugreek contains bitter principles, and if used externally around the nipple area prior to nursing, residual drug may alter nursing performance. Some experts have expressed



concern regarding coumarin derivatives in fenugreek and state that fenugreek should be avoided during breastfeeding. As a side note, the American Academy of Pediatrics considers dicoumarol to be compatible with breastfeeding.¹²

Garlic: Garlic was formerly believed to cause “colicky” infants if the mother ingested it while breastfeeding. Well known for its cardiovascular effects, garlic was demonstrated to enhance nursing performance during breastfeeding.^{12,13} In these reports, an

equal number of women from the garlic group and the lactose-containing placebo group reported “colicky” infants. Nursing time was increased in the garlic group; however, this increased time did not correlate to increased volume of milk ingested. In addition, after repeated serial exposure to garlic-flavored milk, nursing time decreased. The dose of garlic in the studies was 1.5 g of garlic per capsule once daily for three consecutive days.¹⁴

Goat’s Rue: Goat’s rue has found some current favor among lactation consultants to stimulate milk production. Historically it has been used as a galactagogue. It consists of the dried, above-ground parts of the herbal family, Fabaceae. Goat’s rue contains galegin, which has a hypoglycemic action similar to those of synthetic guanidine derivatives.¹⁰ One recommended dose is 1–2 mL of the tincture 2–3x a day. Although there are no known contraindications for the use of Goat’s rue during breastfeeding, its effectiveness as a human galactagogue has not been documented.

Milk Thistle: Milk thistle has been used historically to increase milk supply.¹¹ The drug contains sili-

binin, silydianin, and silychristin, which supposedly have liver-protecting properties. Common side effects include laxative effects and reported allergic reactions. There are



no known contraindications to its use. The average daily dose is 12–15 grams which is equivalent to 200–400 mg of silybinin. It is administered as an infusion and other galenical formulations.¹⁰

ANALGESICS

Bugleweed: Also known as gypsywort or *lycophila herba*, Bugleweed contains hydrocinammic acid, caffieic derivatives, flavonoids, and lithospermic acid. Traditionally, it has been used to counter mild thyroid hyperfunction and to relieve mastodynia or tension and pain in the breast. Bugleweed is taken by mouth as either a freshly pressed juice or a crushed herb. No data exist on its safety in breastfeeding.¹⁰ However if used during breastfeeding, both baby and mother should be monitored because in rare instances, extended exposure to Bugleweed has resulted in thyroid enlargement. Usual daily doses of Bugleweed are 1–2 grams for the tea or 20 mg of the extract.

Comfrey: Comfrey root is a topical herb applied to bruised areas, sprains, or pulled muscles to relieve pain. Extracts, pressed juice, or the crushed roots of comfrey root are used to prepare poultices for external application. The drug contains allantoin and varying amounts of pyrrolizidine alkaloids and pyrrolizidine alkaloid derivatives. Pyrrolizidine is a well-known hepatotoxin that has been found to enter the breast milk of lactating rats.¹¹ Comfrey root is an anti-inflamma-

tory agent that has antimitotic actions. Ointments are available in varying strengths ranging from 5%–20%. The German Commission E recommends that daily doses not exceed 100 mg of the pyrrolizidine alkaloids and pyrrolizidine alkaloid derivatives. Furthermore, accompanying warnings dissuade against prolonged use of this agent, recommending limited use for no more than 4–6 weeks a year.¹⁰ Comfrey root should be avoided during breastfeeding for two reasons: the potential of hepatotoxicity secondary to pyrrolizidine and its antimitotic properties.

HEADACHE (MIGRAINE) AGENTS

Feverfew: Derived from the leaves of *Tanacetum parthenium*, feverfew may decrease the number and severity of migraine attacks. The main active component of feverfew is thought to be parthenolide, a sesquiterpene lactone. Feverfew preparations are available in capsule and tablet form. However, due to the multiple unique preparations of this product, gross differences in dosing, efficacy, and safety may exist.⁹ Specifically, thujone, a compound found in Tansy preparations, is neurotoxic. Toxicity studies of thujone-free preparations of feverfew are not available.¹⁰ Standardization of these preparations is warranted, and until then, safety in breastfeeding cannot be assured.

COUGH, COLD, AND ALLERGY PRODUCTS

Coltsfoot: Coltsfoot leaf, or *Farfarae folium*, is used as an anti-inflammatory agent during acute upper respiratory disturbances. Like Comfrey root, Coltsfoot leaf acts by inhibiting mitosis related to inflammation. It also contains the liver toxin pyrrolizidine and its related toxic derivatives. It is consumed as

either a tea or juice. Other galenical preparations (e.g., tinctures, boiled and strained products) are available. The usual daily dose of Coltsfoot leaf tea is 4.5–6 grams not exceeding 10 mg of pyrrolizidine alkaloids and pyrrolizidine alkaloid derivatives. Acceptable pyrrolizidine amounts are further reduced to 1 mg in instances where such preparations as the pressed juice are used. Coltsfoot leaf is contraindicated during both pregnancy and nursing because of the potential toxic liver effects and its antimitotic action. Its use is recommended not to exceed 4–6 weeks total during a year.¹⁰

Echinacea: A very popular herb commonly used to boost the immune system is Echinacea, otherwise known as purple coneflower. Echinacea has been used to prevent the common cold, promote wound healing, and treat uncomplicated lower urinary tract infections. No known side effects exist for the internal or external applications of Echinacea. Echinacea does contain a specific form of pyrrolizidine. However, this form is considered to be a nontoxic derivative of pyrrolizidine.¹¹ Echinacea is available as a tea, tincture, expressed juice, or capsule.

A daily dose of 900 mg is recommended in adults. No known contraindications to its use during nursing exist other than allergy to the plant family Asteracea (sunflowers). The recommended duration of treatment with Echinacea should not exceed 8 weeks during any course of treatment due to potential liver toxicity and tachyphylaxis.¹⁵ Patients with conditions such as tuberculosis, HIV infection, or autoimmune diseases should not use Echinacea.¹⁰

Elder Flower: Elder flower tea, otherwise known as *sambuci flos*, is used during episodes of acute upper respiratory infection. Patients should

drink one to two cups of tea several times a day. Recommended doses vary by preparation. The average daily dose is 10–15 grams of drug a day, 1.5–3 grams fluid extract, and 2.5–7.5 grams tincture. Elder flower tea acts as a diaphoretic and also increases bronchial secretions. No known side effects or contraindications are known. Therefore, use of elder flower tea during nursing is not contraindicated.¹⁰

ANTI-ASTHMATIC PREPARATIONS

Ephedra: Ephedra, commonly known as ma huang, is a potent herb indicated for the alleviation of asthma-associated bronchoconstriction. Ma huang has become famous for its purported vitalizing, stimulating effects. Ephedra contains the alkaloids ephedrine and pseudoephedrine. Available as either a comminuted herb or other galenical preparations, ephedra acts by indirectly inhibiting the sympathomimetic and central nervous system. German Commission E-recommended single doses are 15–30 mg total ephedrine alkaloid in adults and 0.5 mg/kg in children. A daily dose of 300 mg should not be exceeded in adults. Correspondingly, children should not receive more than 2 mg/kg/day of the ephedrine alkaloid. In addition to bronchodilation, ephedra also causes vasoconstriction, tachycardia, insomnia, and motor restlessness. Contraindications include, but are not limited to, anxiety disorders, hypertension, glaucoma, and thyrotoxicosis. Ephedra preparations may cause tachyphylaxis and addiction; therefore, only short-term use is recommended.¹⁰ Given the potential cardiovascular risks as well as the risk of addiction, the use of ephedrine or ma huang is not recommended during breastfeeding.

CONSTIPATION

Aloe: Aloe, obtained from the dried latex of the leaves of *Aloe barbadensis* and other Aloe species of its genus, is used to treat constipation. Its pharmacologic actions are due to its hydroxyanthracene derivatives, which increase motility of the GI tract and prevent the colon from becoming stationary. Aloe is available orally as a powder and aqueous extracts (powdered or liquid). The recommended dose of aloe should be based on the hydroxyanthracene content of the dosage form. The daily dose is 20–30 mg hydroxyanthracene/day calculated as anhydrous aloin. However, the dose should be reduced, if possible, to the lowest dose required to maintain a bowel movement. Short-term side effects usually result in GI tract distress. On a long-term basis, side effects encountered include electrolyte imbalance, albuminuria, and hematuria. Potassium deficiency is of utmost concern because of the potential to cause cardiovascular dysfunction such as arrhythmias.¹⁰ Due to aloe's anthranoid content and the side effects caused by anthranoids, it should be avoided while the mother is breastfeeding.



Buckthorn, Cascara Sagrada, and Rhubarb: Buckthorn, cascara sagrada, and rhubarb root have similar pharmacological actions as aloe, due their hydroxyanthracene content, and therefore have similar side effects. They are available in liquid and solid forms for oral use, and dosages are 20–30 mg of hydroxyanthracene calculated as glycofrangulin A, caecaroside A, and rhein, respectively.¹⁰ Like aloe, buckthorn, cascara sagrada, and rhubarb

root should be avoided while breastfeeding because of their anthranoid content.

Flaxseed and Psyllium Seed (Blonde): Flaxseed is a bulk forming laxative containing fiber and fatty oils. Collected from *Linum usitatissimum*, the seeds must be cracked, not ground, to produce a laxative effect. The recommended dosage of flaxseed is one tablespoon of cracked seed with five ounces of

water or juice two to three times a day. When flaxseed is taken as recommended, there are no known side effects.¹⁰ Flaxseed is not absorbed systemically and therefore poses little threat to the nursling during breastfeeding. Psyllium seed (blonde) is also a bulk-forming laxative that contains seeds of the plant *Plantago ovata*. The dosage of psyllium seed or other galenical preparations is 12–40 grams daily taken orally with five ounces of water or juice. There are no known side effects to psyllium seed (blonde); however, allergic reactions have occurred. Caution should be used in insulin-dependent diabetic patients as this herbal preparation may disrupt the absorption of food. A reduction in daily insulin doses may be necessary.¹⁰ As with flaxseed, psyllium is not systemically absorbed. Therefore, psyllium seed (blonde) can be safely used while breastfeeding.

Senna: Senna leaf and pod, obtained from *Cassia senna*, contain hydroxyanthracene derivatives, including sennosides, which increase motility of the GI tract and prevent the colon from becoming stationary. Herbal preparations of senna have similar side effects as other hydroxyanthracene derivative-containing herbal preparations used for constipation. The recommended daily dose of senna leaf or pod is 20–30 mg

hydroxyanthracene (calculated as sennoside B). Senna leaf and pod are available in liquid and tablet form. Senna is also available as an herbal tea preparation.¹⁰ Herbal medications of senna contain anthranoids and should be avoided while nursing. Although there are reports that deny negative effects on the nursling,¹¹ the German Commission E recommends avoiding this herb while breastfeeding.

INDIGESTION/ULCERS

Chamomile: Chamomile is derived from fresh or dried flower heads of *Matricaria recutita* but is found in many herbal teas available in grocery stores and retail pharmacies. Chamomile has antispasmodic as well as anti-inflammatory effects on the GI tract, which are attributed to the terpenoids (bisabolols), flavonoids and matricin found in the flower heads of chamomile.⁹ The recommended daily use of chamomile tea is 3–4 freshly brewed cups a day, drunk between meals. There are no known or reported contraindications or side effects to the use of chamomile.¹⁰

Licorice: Licorice root is used in the treatment of peptic/duodenal ulcers. The active components in licorice are thought to be glycyrrhizic and glycyrrhetic acids, which account for licorice's anti-inflammatory and anti-allergic effects. The recommended daily dose is 1.5–3 grams as *Succus liquiritiae* to treat ulcers and is available in liquid and solid dosage forms. However, the components of licorice root possess mineralocorticoid properties leading to unwanted and sometimes fatal side effects, including sodium and water retention, hypokalemia, and hypertension, which can lead to heart failure or even cardiac arrest.¹⁰ Due to these effects, licorice should not be used while nursing.

NAUSEA AND VOMITING PREPARATIONS

Ginger: Ginger root is indicated for the alleviation of symptoms of motion sickness or nausea as well as dyspepsia. Obtained from the rhizome of *Zingiber officinale*, ginger root has activity attributed to oleoresin (a volatile oil and resin mixture), and the sesquiterpene hydrocarbons, zingiberene and bisabolene. Available as 500 mg of powdered rhizome capsules, the recommended dose of ginger is two capsules once motion sickness or nausea begins, then 1–2 capsules every four hours as needed for motion sickness or nausea.⁹ No known side effects have been reported. The German Commission E notes that use of ginger during pregnancy to manage morning sickness is contraindicated.¹⁰ The editor of the Commission E Monographs notes, though, that a review of the literature does not justify this caution. It is stated that there is no evidence that



ginger causes any harm to the mother or the nursling.

WEIGHT CONTROL/LIPID LOWERING AGENTS

Herbal Phen-Fen: Herbal phen-fen is merely a combination of two herbs mentioned elsewhere in this article, ephedra and St. John’s Wort. Herbal phen-fen borrows its name from the once popular, and lethal, weight-loss combination of phentermine and fenfluramine. The use of herbal phen-fen during nursing is not recommended.

Soy Lecithin: Soy lecithin consists of various phospholipids extracted from the Merrill family plants. Supporters of soy lecithin suggest that it may provide some benefit in people with hypercholesterolemia when dietary response is less than optimal. Dosages should be determined by the amount of 3-n-phosphatidylcholine contained in the preparation. The recommended dose is generally 3.5 grams daily.¹⁰ There are no known contraindications to its use by breastfeeding mothers.

URINARY TRACT PREPARATIONS

Goldenrod: Goldenrod is harvested from various species of *Solidago* and is considered one of the safest and most effective herbal medications for inflammation of the lower urinary tract. Its action as a diuretic is attributed to saponins, flavonoids, and glycoside leucoposides (hydrolyzed to salicylic acid in the intestinal tract).⁹ Goldenrod is available as tea and other botanical preparations, and a dose of 6–12 grams daily is recommended. Goldenrod should be taken with copious amounts of water.¹⁰ No known side effects or contraindications have been reported for this herbal medication. Although data concerning goldenrod’s transfer into breast milk is lacking, goldenrod appears to be safe for breastfeeding mothers.

Petasites: Petasites root is an antispasmodic agent used to treat acute spastic, urinary tract pain as, especially pain related to stones. Petasites root contains sesquiterpenes, and also pyrrolizidine alkaloids which have toxic derivatives. The drug is available as an ethanol-based extract and other galenical preparations. Usual doses of petasites root are equivalent to 4.5–7 grams of drug but should not exceed a total of 1 mg of pyrrolizidine and its toxic components.¹⁰ Pyrrolizidine probably enters breast milk and is a known toxin that causes liver injury.¹¹ Pyrrolizidine-containing products, such as petasites root, are therefore contraindicated during nursing.

Uva Ursi: Uva ursi, sometimes called bearberry leaves, has been used to treat urinary tract infections. Uva ursi does have an antimicrobial effect against some strains of *E. coli*, *Proteus vulgaris*, *S. aureus*, and *P. aeruginosa*. This action is related to a component found in Uva ursi called

Table 1
Selected Herbal Products

INDICATION	CONTRAINDICATED	RECOMMENDED ALTERNATIVE
Galactogogues		Chaste Tree*, **, Fennel*, Fenugreek*, Garlic, Goat’s Rue, Milk Thistle
Analgesics	Comfrey	Bugleweed*,**
Headache (Migraine) Agents	Feverfew	
Cough, Cold, and Allergy Products	Coltsfoot	Echinacea, Elder Flower
Anti-Asthmatic Preparations	Ephedra	
Gastrointestinal Agents	Aloe, Buckthorn, Cascara Sagrada, Licorice, Rhubarb, Senna	Flaxseed, Psyllium Seed (Blonde), Chamomile
Nausea and Vomiting Preparations		Ginger
Weight Control/Lipid Lowering Agents	Herbal Phen-Fen	Soy Lecithin
Urinary Tract Preparations	Petasites, Uva Ursi	Goldenrod
Anti-Anxiety Agents	Indian Snakeroot, Kava Kava	Passionflower*, St. John’s Wort*, Valerian*
Stimulants	Angelic Root/Dong Quai, Ginseng Root, Siberian Ginseng	Ginkgo biloba*
Sleep Preparations		Melatonin
* Monitor nursing for potential side effects		
** May decrease prolactin level		

aglycone hydroquinone. Aglycone hydroquinone is released from its transport form, arbutin, in alkaline urine. The drug is said to have an inhibiting effect on tyrosinase activity. Tyrosinase plays an important role in the formation of melanin from DOPA. The effect of this inhibition is a decrease in melanogenesis.

Therefore, duration of treatment should not exceed seven days or more than five times a year with either of the following dosage regimens.¹⁰ Available in a powder form for infusions or macerations, there are two recommended doses. If taken as a single dose, one would prepare 3 grams of *Uva ursi* in 150 mL of water as an infusion or maceration. This dose is equivalent to 100–210 mg of hydroquinone derivatives. For a multidose regimen, the above directions are followed, and doses are repeated up to four times a day. This regimen yields a daily dose of 400–840 mg of hydroquinone derivatives. Little is known about the transfer of *Uva ursi* into breast milk.¹⁰ Therefore, its use during nursing is not recommended due to possible disruptions in melanogenesis.

ANTI-ANXIETY AGENTS

Indian Snakeroot: Indian Snakeroot is used mainly to control mild, essential hypertension. Indian Snakeroot has also gained popularity for the treatment of tension, anxiety, and psychomotor irritation. It is available in powders, galenical preparations, or as the crushed herb. This herbal preparation contains Rauwolfian alkaloids, which are the same components contained in early antihypertension agents such as reserpine. Reports of severe mental depressive disorders surfaced as Rauwolfian alkaloid use increased in the beginning days of hypertension management.¹⁶ A daily dose of 600

mg of drug (corresponding to 6 mg of total alkaloid calculated as reserpine) is recommended. As a Rauwolfian alkaloid, Indian Snakeroot, like reserpine, can also cause central nervous system depression due to the breakdown of norepinephrine. It is therefore contraindicated in breastfeeding.¹⁰

Kava Kava: Kava kava is a popular herbal medication used for nervous anxiety and restlessness. It acts by depressing the central nervous system. The drug consists of kava pyrones, called kawain, extracted from the dried rhizomes of the *Piper methysticum* plant. Kava kava is available in galenical preparations as well as in comminuted decoctions. Equivalent doses are based on the kava pyrone amount and are 60–120 mg daily for adults. Kava kava is believed to enter breast milk and therefore, due to its depressant effects on the central nervous system, it is contraindicated in nursing mothers. In addition, long-term exposure to Kava kava can cause a temporary, yellow discoloration of skin, hair, and nails.¹⁰

Passionflower: Passionflower is isolated from the flower of the climbing vine *Passiflora incarnata*. This herb is most commonly used to treat anxiety and insomnia. Passionflower is often found combined with other herbal products in the same preparations. Thus, it is necessary to carefully check all ingredients prior to use. Made primarily of flavonoids, particularly the flavonoid vitexa, and harmala-type alkaloids, Passionflower also contains coumarin derivatives. The traditional dose is 4–8 grams of passionflower brewed as a tea and taken in divided doses throughout the day. Other formulations include capsules. Passionflower has no known side effects or contraindications. However, no data exist with

regard to its use in nursing mothers.¹⁰ Due to its potential sedating effects on the nursing, breastfeeding infants should be monitored for this possibility.

St. John's Wort: Perhaps the most well-known herb today is St. John's Wort, used in the treatment of depression and anxiety. Its active constituents are obtained from hypericum extracts, which have been shown to alter many of the brain's neurochemical pathways, including inhibition of multiple neurotransmitters.¹⁷ Hypericum has a half-life of 25 hours, and peak plasma levels are reached approximately five hours after oral ingestion.¹⁸ St. John's Wort has no known contraindications, and the main side effects are photosensitivity and abdominal symptoms. Available in capsules, tea, oils, and transdermal patches, the usual dose to treat depression is 0.2–1 mg hypericum.¹⁰ No known contraindication to breastfeeding exists.

Valerian: Valerian root is perhaps the most effective anxiolytic in this group.⁹ Having been used as a minor tranquilizer and sleep aid for over 1,000 years, Valerian root can either be ingested orally or used as a bath ingredient. The exact active constituent remains to be discovered. The recommended oral dose is 2–3 grams of fresh herb brewed as a tea and taken in divided doses throughout the day. Equivalent doses of tincture can also be used. When preparing a valerian root bath, 100 grams of the herb per tub should be used. Side effects or contraindications have not been reported;¹⁰ nonetheless, monitoring the baby for drowsiness is advisable.

STIMULANTS

Angelica Root/Dong Quai: Angelica root, also known as dong quai, has been used in the treatment of female disorders, particularly for

the regulation of the menstrual cycle. Dong quai contains coumarin and coumarin derivatives that are thought to contribute to its antispasmodic and vasodilatory effects. Dong quai also contains compounds that may stimulate the central nervous system. Angelica root is available as either a pulverized herb or a botanical product. A daily dose of 4.5 g is recommended. Certain furanocoumarins present in dong quai sensitize the skin to light and UV radiation.¹⁰ Because little is known regarding breastfeeding and angelica root, and with its effect on estrogen and photosensitivity, this herb should be avoided during breastfeeding.

Ginkgo Biloba: Another well-known herbal is Ginkgo biloba, used by a large number of people to combat decreased memory and concentration, and dementia. Younger persons take Ginkgo to enhance learning ability.



Dosage recommendations range from 120–240 mg a day in two to three divided doses. Treatment should last at least eight weeks in cases of organic brain disease. Other uses should be limited to 6–8 weeks on a one-time basis to determine if any therapeutic benefits exist. No apparent information on breastfeeding and Ginkgo biloba exists.¹⁰ It is a known platelet inhibitor and may affect coagulation processes in the mother and the nursing. Therefore, it should be used with caution, especially in infants with cardiovascular disease.

Ginseng: Ginseng is a name that includes two very different groups of herbs. The first is the traditionally known ginseng, from the Panax family. The second group originates from the Eleutherococci

family, and is known as Siberian Ginseng. These two different types of ginseng each possess very different properties and must therefore be discussed separately.

• **Ginseng Root:** Ginseng from the Panax family, or ginseng root, contains steroid-like ginsenosides. Claims for this drug are that it enhances mental capacity. Also, the tonic is advertised to invigorate during times of fatigue. Daily doses of 1–2 grams of the root are prepared from cut root or powder. Ginseng root may be taken for up to three months. Little is known about ginseng root and breastfeeding.¹⁰ Ginseng may cause estrogenic side effects as well as platelet changes.^{17,18} Until more information is known, ginseng root should be avoided during nursing.

• **Siberian Ginseng:** Siberian ginseng, also called Eleuthero root, contains eleutherosides, lignans, and coumarin derivatives. Like Ginseng root, this drug claims to enhance mental capacity. The tonic is also advertised to invigorate during times of fatigue. The dose, though, is different from Ginseng root. Eleuthero root requires 2–3 grams daily in either an extract or a tea for up to three months.¹⁰ One report claiming androgenization of an infant in a pregnant mother taking Siberian ginseng is in the literature.¹⁹ Little is known regarding eleutherosides and breastfeeding. Until more information is available, Siberian ginseng should be avoided during nursing.

SLEEP PREPARATIONS

Melatonin: Melatonin is a widely used medicinal for the treatment of insomnia and jet lag. A naturally occurring compound secreted by the pineal glands, melatonin aids in the regulation of the

sleep cycle, among other physiologic processes. The normal physiologic dose is 0.3–0.5 mg a day. Available manufactured preparations range in dosage forms from 0.5–5 mg. An extended-release formulation is also available but should be avoided in breastfeeding. Mothers with autoimmune disorders, diabetes, or depression should avoid using melatonin due to potential adverse effects.²⁰ No specific information exists on the use of melatonin during breastfeeding. If necessary, a dose of 1–3 mg appears to be acceptable for nursing mothers.

CONCLUSION

Both patients and healthcare professionals must approach herbal medication use cautiously. The fact that herbal products are promoted as “natural” does not imply that they are always safe to use.²¹ Unlike conventional medications, herbal products are not regulated by the Food and Drug Administration and are not subject to its Good Manufacturing Practice guidelines. Therefore, a lack of standardization exists among herbal medications. In addition, an active or harmful ingredient may be more or less concentrated in a particular plant depending on where, when, and how the herb was harvested. These inconsistencies can lead to fluctuations in efficacy and to potentially harmful side effects in the mother and/or nursing.

Little is known about side effects of herbals. There have been reports of specific herbal side effects, but there are a lack of a standardized reporting mechanisms for herbals. The information presented in this article can serve as a general guideline for breastfeeding mothers. However, the use of any medication while breastfeeding is only recommended if patients have a real

medical need for treatment.

Conventional medications should be considered first-line therapy because more clinical studies and data exist for conventional therapy during nursing.

Currently, not all healthcare professionals have sufficient knowledge of alternative therapies and herbal medications. By enhancing their overall knowledge of herbal products and their role in patient care, pharmacists can be a valuable asset for improving pharmaceutical care for breastfeeding mothers. ■

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