



Making Sense of Mammaries: Assessment and Integrative Care

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Objectives

- Describe normal lactational changes in mammary glandular tissue and overall breast anatomy.
- Identify and assess common lactation-related issues, including causes of discomfort and inflammation.
- Apply integrative and evidence-informed strategies to support mammary function and health.

What are some lactation concepts you once learned but now have a different perspective on?

During your career, the 'facts' you know will change, critical thinking should deepen

Ask yourself:

Is it true?

What is root cause, what else is connected?

Is it urgent or can we try basics first?

What outcomes do I see with current approach?

Are my biases clouding my critical thinking?

What is my source for this info?

Can I grow and pivot as new info comes along?

Does it align with what I see in practice?

Breast, chest, nipple areas of assessment

- Overall assessment, observation, palpation
- Mammary, glandular tissue concerns
- Milk flow concerns
- Tissue concerns
- Nipple health concerns
- Inflammation, infection concerns

Mammary Tissue Development

- Birth to puberty, rudimentary branches elongate through the mammary fat pad
- Functional activation during pregnancy, lactation
- Lactation driven by molecular, biochemical, cellular events primarily regulated by reproductive hormones
- Pregnancy = transition from nonsecreting to secreting organ
- Post-birth = hormonal transition coordinates synthesis, transport of various milk constituents for the onset of milk secretion
- Ongoing removal of milk = maintenance of production
- Many factors throughout the lifespan can impact mammary development and functional lactation

Hands-On Assessment

- Scope of practice, CONSENT
- Assess, palpate all quadrants, axilla
- Movement patterns (conical, vertical, radial), seated, arms up, supine?
- Routine vs case by case? Does current approach give you the info you need?

Documentation Ideas

- Symmetrical, asymmetrical
- Texture (soft, nodular, fibrocystic, dense)
- Glandular/adipose tissue
- Palpable defined areas, masses (fluctuant, firm, area/cm/mm note)
- Nipple-areolar complex (everted, inverted, invaginated, scars, tissue condition, vasospasm, fissure, bleb, etc)
- Skin (erythema, edema, peau d'orange, dermatological concerns of note, etc)

Hands-Off Assessment

- Ask: history, family, changes in Pg/PP
- Visual exam ok? Note intramammary spacing, symmetry, etc
- “Do you have any concerns about your breasts/chest?” “Tell me what changes you have experienced so far”?

Supply Screening

- Real vs perceived
- Previous lactation experiences
- Familial lactation Hx
- Past/current lactation plan
- Past breast/chest/thoracic trauma/surgeries
- Overall health, endocrine, mental health Hx
- Support systems

What is Enough?

Milk production that meets the exclusive needs of the infant

1–6-month singleton, exclusive human milk intake

Mean average 750-800 mL/24hr

Range 450-1200 mL/24hr

Variables:

- Production capacity vs actual need
- Storage capacity
- Ability to impact change

Primary Insufficiency

Physiological inability to produce enough to exclusively feed an infant despite optimal lactation management

Mammary development, lactation function impacted by:

- Genetics, epigenetics
- Nutritional factors
- Endocrine, neuroendocrine factors
- Medications
- Procedures, surgeries

Secondary Insufficiency

Inability to produce enough to exclusively feed due to suboptimal lactation management; has/had physiological ability to lactate sufficiently; poor milk removal, initiation of lactation compromised production

- Pregnancy, birth, postpartum impact
- Systemic disparities, barriers to adequate care
- Suboptimal milk removal early on
 - Infant
 - Suboptimal tools
 - Milk ejection reflex concerns
- Neuroendocrine impact, stress, mood

Production Red Flags

- Minimal breast/chest changes
- Asymmetry, tubular, hypoplastic shape
- Wide intramammary spacing
 - > 1.5" (4 cm) possible risk factor (Kam, 2021)
- Bulbous, disproportionate, short/wide nipples; dense areolas (Ventura, 2021)
- S/S insulin resistance (dark stretch marks, acanthosis nigricans)
- Scant glandular tissue, mostly adipose tissue
- Hx breast surgery
- Hx irregular development, endocrine issues
- Familial Hx of alcoholism (Mennella, 2010)
- Connective tissue concerns (Francis, 2022)

5-Point Hypermobility Screening

Developed by Hakim & Grahame; validated tool used in research and clinical settings

- Can you now (or could you ever) place your hands flat on the floor without bending your knees?
- Can you now (or could you ever) bend your thumb to touch your forearm?
- As a child, did you amuse friends by contorting your body or doing the splits?
- As a child or teenager, did your shoulder or kneecap dislocate more than once?
- Do you consider yourself double-jointed?
- Interpretation
- ≥ 2 "yes" answers \rightarrow suggests generalized joint hypermobility.

Considerations for lactation with Ehlers-Danlos syndrome Francis, 2022

- Research in Pg/lactation limited, 13 EDS subtypes, each case unique
- Mothers may experience: GI distress, reflux, fatigue, chronic pain, joint complaints, subluxations, skin fragility, vascular issues, dysautonomia, poor proprioception, Bf impediments, pain, trouble expressing milk
- Mothers with these symptoms often overlooked, not addressed, impacting a mother's ability to meet her breastfeeding intentions.
- Watch, listen closely: Identifying characteristics of EDS can improve management of lactation challenges

Value of available milk: Affirming Phrases

- Supportive milk production
- Available milk supply
- Current milk capacity
- Milk production exists on a spectrum
- Any amount of milk can be valuable
- Milk production appropriate to circumstances
- Lactation doesn't require exclusivity to be successful

Shatavari (*Asparagus racemosus*)

2026: Meta-analysis, 7 RCTS

“Shatavari, fenugreek, ginger... demonstrate promising effectiveness in enhancing milk production”

Gupta & Shaw, 2011

RCT n=60

GG shatavari powder 60mg/kg vs CC 60mg/kg rice powder (ex 150lb avg 4080 mg/day)

Shatavari: Prolactin levels 3x higher in GG group, infant weigh 16% increase, improved lactation experience

Ajgaonkar 2025, RCT, n=120 (113)

Post-partum ≥ 37 wk, 20-40 yo, uncomplicated vaginal or C/S deliveries, Bf intentions. Baseline characteristics comparable

300 mg Shatavari root extract BID vs placebo - 72 hr postpartum

Results in shatavari group:

Time to evident breast fullness after last feed shorter ($p = 0.002$). Milk volume at 72 h higher ($p < 0.001$).

Maternal satisfaction with lactation and infant wellbeing higher ($p = 0.008$).

No adverse events occurred.

Safety:

No major concerns

Avoid with lithium, diuretics, asparagus allergy

Mindful with hormone-sensitive conditions (breast cancer, endometriosis)

Saponin-rich, GI caution

In Ayurveda, described as “absolutely safe for long term use”

Alok, 2013: High dose, systemic administration (oral, IV) produced NO abnormalities or mortality in mice and rats even up to oral dosage of 64 g/kg (435,200 mg /150lb)

	Category	What to Ask / Look For
B	Breast Pain	Localized, bilateral, temperature, description (burning, tender, sharp, etc)
R	Redness, Rapid Changes	Defined or diffuse margins, rash, sudden lump, skin dimpling, nipple inversion/changes
E	Engorgement, Edema, Emptying Problems	Difficulty removing milk, residual fullness, milk ejection
A	Abnormalities (Skin, Circulation, Bleeding, Discharge)	Dermatological, circulatory (vasospasm, temp, etc), bleeding, unusual discharge
S	Systemic Symptoms	Fever, chills, malaise, tachycardia, feeling acutely ill, autoimmune, allergies
T	Trauma, Tissue Damage	Compression, fissures, open wound, cracks, ulceration, biofilm, blebs

Basic Inflammation Care Ideas

Seek urgent care if warranted

Keep it flowing!

Ensure no blockage from nipple

Lymphatic movement

Gentle touch

Anti-inflammatory support

Integrative options: nutrition, immune support, breast specific probiotics, turmeric, Boswellia

Effectiveness of Topical Curcumin for Treatment of Mastitis in Breastfeeding Women Afshariani et., al, 2014

- RCT: n=63 lactational mastitis, moderate inflammation
- Herb group: n=32, curcumin topical cream, one pump every 8 hours for 3 days
- Control group: (n=32), topical moisturizer, one pump every 8 hours for 3 days
- Results: After 72-hour of therapy, patients in curcumin group significantly lower rate of mastitis, tension, erythema, pain

Boswellia (*Boswellia spp*)

- Common name: Frankincense
- Dose: Oral 1000-2500 mg/day, or topical options
- Anti-inflammatory, immunostimulant, antimicrobial, prevents biofilm formation, antarthritic
- Safety: no real contraindications. Compatible with lactation. Potentially avoid if on immunosuppressant Rx
- Treatment of cyclic breast pain in premenopausal women
- Burratti, 2024 – topical gel (Boswellia, myoinositol, betaine) vs placebo
- Pasta, 2016 – oral (Boswellia, myoinositol, betaine, vitamin complex) vs vitamin only
- Results: Significant pain reduction in experiment group

Basic Nipple Care Ideas

Urgent care if warranted

Keep it clean!

Wash, rinse, spray

Appropriate topical, clean pads

OTC options, non-lanolin nipple cream

Integrative ideas: calendula hydrosol / oil, medical grade honey

Calendula (*Calendula officinalis*)

Common in baby, breast products

Research on efficacy in: Post radiation dermatitis, episiotomy healing, wound care

Actions: antimicrobial, antiseptic, anti-inflammatory, wound/tissue healing, supports lymph flow

Indications for use: polymicrobial internal/external infections, dermatitis, nipple damage, immune support, skin lesions, reduces GI/urinary tract inflammation

Contraindications and Interactions: GRAS. Contraindicated Asteraceae/Compositae family allergy. Avoid internally early Pg.

Available Evidence: Eghdampour, 2013; Shahae, 2023, Rad, 2017; Murzyn, 2010; Mahmoud, 2011; Ramos da Silva, 2016; Niazi, 2018; Arora, 2013; Givol, 2019; Siddiquee, 2021

Basic Bleb Care Ideas

Urgent referral if warranted

Keep it clean, moist, soft, flowing!

Gentle soak, soften, Gently open or not?

Appropriate topical, gob of ointment/topical on clean pads

Rx options: triamcinolone 0.1%, limit use, monitor

Integrative ideas: Calendula oil, medical grade honey, etc

Basic Vasospasm Care Ideas

Keep it warm, minimize compression, optimize movement/circulation

Rx options: nifedipine (10 mg TID vs 30 mg ER)

Labs: CBC, CMP, ferritin, thyroid panel, B12, Vit D3

Integrative Ideas: Manual therapy, topical warmth, L-arginine 1000- 3000 mg/day (avoid if active HSV) (Curtiss, 2019), Turmeric, warming herbs (think chai) ginger (Chao, 2021; Young, 2006)

Mindful care = using our BRAIN

B = Benefits

R = Risks

A = Alternatives

I = Intuition

N = Nothing, Next steps

For additional information, database access or herbal and lactation consulting or education contact Melissa Cole, MS, IBCLC at:



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