U.S. National Library of Medicine
National Center for Biotechnology Information

**NLM Citation:** Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Acupuncture. [Updated 2024 Jun 15].
**Bookshelf URL:** https://www.ncbi.nlm.nih.gov/books/


# Acupuncture

Revised: June 15, 2024.

## Drug Levels and Effects

### Summary of Use during Lactation

Acupuncture and acupressure at traditional Chinese medicine (TCM) sites used to treat low milk supply has been claimed to cause release of prolactin and oxytocin, although published studies have found mixed results on serum prolactin. In one study, acupuncture did not affect prolactin hyperresponsiveness after stimulation with metoclopramide in women with amenorrhea-galactorrhea syndrome. Galactorrhea has been reported following acupuncture for pain treatment. No adverse effects on milk production were seen among lactating women who received acupuncture for postpartum sciatica.[1]

Acupuncture has been well described in TCM for treating insufficient milk supply,[2,3] and has also been used in some Western countries.[4-6] Numerous studies found acupuncture at CV 17 (also referred to as Ren 17, Danzhong or Shanzong; located at the center of the sternum), SI 1 (Shaoze; on the little finger), ST 18 (Rugen; lower breast margins), Zusanli (ST 36), and Taichong (LR 3) to benefit women with a low postpartum milk supply.[7] These studies generally do not meet current evidence-based guidelines, partly because of the extreme difficulty in double-blinding and placebo-controlling acupuncture studies. However, 2 studies did find a better response to electroacupuncture applied at a traditional site for lactation stimulation (SI 1) than electroacupuncture applied at a site unrelated to milk production (LI 1). Electroacupuncture increased serum prolactin, infant weight and maternal perception of milk production more than domperidone alone.[8] None of the studies reported to date have made an attempt to optimize maternal nursing technique before acupuncture. Although less studied, acupressure at milk acupuncture sites has had similar effects.[9] Systematic reviews concluded that acupuncture and acupressure are effective in increasing serum prolactin and breastmilk volume, although study quality is critically low.[9-13] Acupressure combined with back massage increases serum prolactin and milk production more than either alone in one study.[14] The combination of acupuncture and Chinese herbal medicines appeared to be more effective in increasing lactation parameters than acupuncture alone.[13]

Acupuncture therapy has been used to treat breastfeeding for milk stasis (engorgement). Randomized, nonblinded studies in an outpatient Swedish lactation clinic compared routine care (including oxytocin spray) to routine care plus acupuncture at 2 or 3 points for treating milk stasis.[15,16] A meta-analysis concluded that women who received acupuncture were less likely to develop an abscess, had less severe symptoms on day five,

**Disclaimer:** Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

**Attribution Statement:** LactMed is a registered trademark of the U.S. Department of Health and Human Services.

and had a lower rate of fever than women in the usual care group However, there is insufficient evidence from published trials to justify widespread implementation.[17] A survey of 50 Swedish maternity units in 2007 found that 60% of hospitals used acupuncture to treat milk stasis, 18% used acupuncture to treat mastitis, and 2.2% each used it for painful breastfeeding or to improve milk supply. The authors felt that this extensive use was not justified based on the limited evidence for most of these uses.[18] Acupuncture and acupressure have also been used successfully as a treatment for breast engorgement and pain.[10,19]

Auricular therapy uses stimulation of acupoints on the ear corresponding to various anatomical sites and functions of the body for the diagnosis, treatment, and prevention of disease. All studies applied *Vaccaria* seeds to press on ear acupoints. Two systematic reviews on auricular therapy to increase milk supply have come to differing conclusions. One review found a positive effect on milk production, onset of lactation, serum prolactin, breast fullness, neonate states, and frequency of newborn urination and defecation.[20] A more recent review found varying efficacy between studies and poor methodology that did not allow for a definitive conclusion on efficacy as a galactogogue.[21] No adverse effects were reported in any studies. A newer additional small study found similar results.[22] A controlled study found that auricular acupressure may slightly increase the pain threshold some areas of the breast in nursing mothers.[23] A single-blind study found auriculotherapy to increase breastfeeding self-efficacy in the mothers of preterm infants and to increase infant weight gain at hospital discharge.[24]

## Effects in Breastfed Infants

Relevant published information was not found as of the revision date.

## Effects on Lactation and Breastmilk

Galactorrhea has been reported after acupuncture for pain treatment in 2 women who had previously breastfed, but were not currently breastfeeding.[25,26]

In a Polish study, 8 women who had galactorrhea for 2 to 9 years after delivery were given metoclopramide as a diagnostic agent before and after acupuncture. After a 10 mg oral dose of metoclopramide, serum prolactin was measured within the first hour after the dose and at 2 hours after the dose. Women were divided into 2 groups. All women had normal baseline serum prolactin levels, but were hyperresponsive to metoclopramide, with average prolactin elevations of 760% and 926% in the two groups. The women underwent 10 sessions of acupuncture, with each group receiving acupuncture at different points thought to reduce hyperlactation. Although galactorrhea resolved in 1 woman and improved in 3 others, no difference was noted in the prolactin response to metoclopramide stimulation. The authors interpreted this finding to indicate that acupuncture's effect on galactorrhea is not mediated via prolactin secretion.[27]

An uncontrolled case series on 27 women in Romania who reported insufficient lactation following delivery were given acupuncture, but no instructions on proper breastfeeding techniques. The main acupuncture points were CV 17, SI 1, and ST 18, with some women receiving treatment at additional TCM points. Acupuncture was done daily until milk supply improved, then every 2 to 3 days. No blinding or controls were attempted. Improvement was rated as good in 19 women, satisfactory in 8 women and no response in 4 women. Women who responded required 2 to 7 sessions, while nonresponders received up to 10 sessions. Primiparous women responded with fewer sessions than multiparous women.[28]

An uncontrolled case series from one Chinese hospital reported on 30 women who had insufficient postpartum milk supply and were treated with acupuncture at the CV 17, SI 1, and ST 18 primary sites, with supplementary treatment at ST 36 (Zusanli; middle of shin) and LR 3 (Taichong; dorsal foot near big toe). No instructions on proper breastfeeding techniques were provided. Most reportedly improved to some degree with one treatment and markedly improved with 3 to 5 treatments, especially if treated within 10 days of delivery.[29]

A multicenter, randomized, single-blind clinical trial in China compared breast fullness, amount of milk produced, TCM symptom score, and prolactin levels in two groups of 138 patients. No instructions on proper breastfeeding techniques were reported. One group received electroacupuncture (EA) at the SI 1 site and the control group received EA at the LI 1 site. The percentage of women rated as clinically "cured" or "markedly improved" was 98% in the treatment group and 24% in the control group, which was a statistically significant difference. The TCM score, breast fullness, milk production and prolactin levels were also reportedly better in the group treated at SI 1.[30]

A multicenter, single-blind clinical trial in China compared breast fullness, amount of milk produced, neonatal body weight, artificial feeding frequency and volume, urination frequency and crying time of neonates in 276 women randomized to receive either acupuncture at CV 17 or a traditional herbal galactogogue mixture (Tongre Decoction). No instructions on proper breastfeeding techniques or other support were reported. The endpoints were improved in the two groups, with no significant difference between the two groups.[31]

In a Chinese study, women reporting lactation insufficiency were randomized to receive electroacupuncture bilaterally at the SI 1 site (n = 46) or the LI 1 site (n = 46). Women received a total to 10 treatments. The 24-hour milk volumes and morning serum prolactin levels were measured before and after the treatment course. At the end of therapy, all women receiving acupuncture at the SI 1 site had improved milk volumes compared to 70% at the LI 1 site. Serum prolactin was unchanged from baseline in the treatment group, but was lower at the end of the study in the control group.[32]

A study in Italy randomized women with insufficient milk supply postpartum to receive either acupuncture (n = 41) or routine observation (n = 43). The main acupuncture points were CV 17, SI 1, and ST 18 with some women receiving treatment at additional points, based on TCM diagnoses. Women received a total of 6 treatments over 2 weeks. Before therapy, the rate of exclusive breastfeeding was similar in the 2 groups at about 50%. By 3 weeks after study enrollment, the rate in the observation group was lower (60%) than in the acupuncture group (98%). At 3 months of age, exclusive breastfeeding was 15% in the observation group and 35% in the treated group.[33]

A nonrandomized trial in China used acupuncture at the neiguan and yang chi points to treat engorgement in 40 patients. After treatment, breast tenderness and swelling and milk output were all improved to a statistically significant degree.[34]

A randomized, nonblinded study in Iran compared maternal breastfeeding education to acupressure among women referred for hypogalactia. At 2 and 4 weeks after initiation, both groups had increased milk output, but the volumes of milk were greater in the acupressure group than in the education group.[35]

A study in China of women with cesarean section were randomized into an observation group (n = 28) and a control group (n = 30). The control group received routine care while the observation group acupoints from the breast related meridians received massage for 1 minute starting the 3rd day after operation, and continuously for 5 days. From the 3rd to 5th days, the lactation volume, breast filling and galactostasis score in the observation group were all lower than those in the control group. The difference in milk viscosity was not significant in the first 4 days between the two groups, but on the 5th day, the milk viscosity in the observation group was lower than that in the control group. The investigators concluded that massage at the acupoints from the breast related meridians effectively promotes the lactation secretion in postpartum hypogalactia and alleviates breast distention.[36]

A randomized, nonblinded trial compared acupressure at breast-related sites to a control group that received standard care. The lactation volume, breast filling, galactostasis scores were better in the treatment group between days 3 to 5. On day 5, milk viscosity was lower in the treatment group.[37]

Standard therapy plus tuina therapy, which involves acupoint massage at several acupoints, was compared with standard treatment alone in primiparous mothers with full-term deliveries by cesarean section. Eighty mothers were randomized into the 2 groups of 40 each if they were producing less than 1 mL of milk per feeding at 48 hours postpartum. Mothers in the tunia group received 15 minutes of therapy to each breast daily for 2 days. At 72 hours postpartum, patients who received tunia therapy had greater increases in breast volume, and greater increases in serum prolactin than those who received only standard therapy. Treated women had average increases in milk of about 50 mL between 72 and 96 hours compared to untreated women who had average increases of only about 4 mL during the same time period.[38]

A poorly controlled study compared the milk outputs of two groups of women, those who received acupressure at the CV17, ST18 and SI1 points 3 times a week for 3 weeks (n = 35) and those who did not (n= 35). The control group had no increase in milk output over time, while the mothers receiving acupressure had a steady increase of milk output. At the end of 3 weeks, the average milk production was about 60% higher in the acupressure group. [39]

A study compared postpartum mothers who received postpartum gymnastic exercises (n=40) to those who received acupressure for 5 to 10 minutes daily for 7 days starting at 24 hours postpartum (n=40). Acupressure was applied at the LU 1, CV 17, Si 1 acupuncture points. Milk output was evaluated on days 2, 4 and 7 postpartum. Milk output was slightly (about 17 mL) increased over control on all days in women who received acupressure.[40]

A randomized study of women (n = 20 in each group) who were mixed feeding their infants in the first month postpartum compared 12 sessions of electroacupuncture or low-level laser therapy to the breast over 1 month and control women. All women also received oral domperidone 10 mg three times daily. Both laser therapy and electroacupuncture increased serum prolactin, infant weight and maternal perception of milk production more than domperidone alone. Electroacupuncture increased these values to a greater degree than laser therapy.[8]

A nonblinded, randomized study compared acupressure to no treatment in primiparous mothers who had a cesarean section before 37 weeks of gestation, had an infant in the NICU and were unable to breastfeed. Both groups were given breast pumps and instructed to pump 8 times daily. The acupressure group receive 15 minutes of acupressure at the Tangzhong (CV17), Hegu (L14) and Shaoze (SI1) points. Mothers who received acupressure produced greater quantities of milk at 4 times over the first 2 days postpartum.[41]

A nonrandomized, nonblinded study of women who had undergone cesarean section compared those who received acupoint stimulation, breast massage and *Vaccaria* seed decoction twice daily for 7 days (n = 74) to those who received routine western medicine nursing intervention (instructing mothers to breastfeed, letting the baby contact and suck early after delivery, dietary guidance and psychological intervention, and instructing mothers to get more exercise). Serum prolactin was greater at 3 days postpartum in the acupoint group than the prenatal prolactin and at 1 day postpartum and in the control group. The acupoint group had a higher exclusive breastfeeding rate, higher milk yield at 48 hours postpartum, and milder breast tenderness than the control group. At 42 days postpartum the acupoint group had a greater infant weight than the control group.[42]

A non-blinded, study randomized postpartum primiparous women who had undergone a cesarean section to either receive or not receive auricular thumbtack needle acupuncture once for 3 days. The lactation initiation time in the treated group was earlier than that in the control group and the breastfeeding score in the treated group was higher than that in the control group. The lactation adequacy rate at postpartum 72 hours postpartum was 63.8% in the treated and 41.7% in the control group. The exclusive breastfeeding rate at 42 days postpartum was 72.3% in the treated group and 47.9% in the control group. The mRNA and protein expression levels of TDP-43 and Btn1A1 in breastmilk in the observation group were higher than those in the control group. All of these differences were statistically significant. There was no statistically significant differences in mRNA and protein expression of XDH in breastmilk between the two groups.[43]

A nonrandomized convenience sample of mothers of infants in the NICU who would be breast pump-dependent for a prolonged time were compared to a historical sample of mothers. The intervention mothers received acupuncture at the Shao Ze (SI 1), Zusanli (ST 36), Dan Zhong or Shan Zhong (R 17), and Taichong (L 3) points for a maximum of 3 times weekly for the first 30 days postpartum. Milk volumes of the two groups were compared on days 10, 14, 21, and 30 after starting acupuncture and at every time point, pumped milk volume was greater in the group that received acupuncture. Mothers who received corticosteroid therapy prepartum had lower milk volumes in both groups.[6]

A meta-analysis of 19 randomized, controlled trials of acupuncture to increase serum prolactin containing 2400 participants was conducted using 10 databases, including 4 Chinese databases. Secondary outcomes included milk secretion volume (MSV), total effective rate (TER), mammary fullness degree (MFD), and exclusive breastfeeding rate (EBR). Using the GRADE tool, all outcomes were rated as critically low primarily because of low methodological quality, inconsistencies, and publication bias. The quality of evidence was critically low.[13]

## References


1. He BS, Li Y, Gui T. Preliminary clinical evaluation of acupuncture therapy in patients with postpartum sciatica. J Midwifery Womens Health 2018;63:214-20. PubMed PMID: 29569351.
2. Yao CX. Acupuncture treatment for agalactia. J Tradit Chin Med 1988;8:128. PubMed PMID: 3412011.
3. Clavey S. The use of acupuncture in the treatment of insufficient milk supply. Am J Acupunct 1996;24:35-46.
4. Winterfeld U, Meyer Y, Panchaud A, et al. Management of deficient lactation in Switzerland and Canada: A survey of midwives' current practices. Breastfeed Med 2012;7:317-8. PubMed PMID: 22224508.
5. Pierdant G, Westphal K, Lange A, et al. Stimulation of lactation using acupuncture: A case study. J Hum Lact 2022;38:559–63. PubMed PMID: 35189736.
6. Baker-Fox C, Hayakawa J, McCarty R, et al. East meets west: Effect of acupuncture on lactation and maternal quality of life. Breastfeed Med 2024;19:291-300. PubMed PMID: 38535968.
7. Fan ZL, Yang MF, Yin RP, et al. [Exploration on the acupoint selection rule for the treatment of postpartum hypogalactia with acupuncture and moxibustion based on the set visualization analysis system]. Zhongguo Zhen Jiu 2020;40:1138-42. PubMed PMID: 33068361.
8. Maged AM, Hassanin ME, Kamal WM, et al. Effect of low-level laser therapy versus electroacupuncture on postnatal scanty milk secretion: A randomized controlled trial. Am J Perinatol 2020;37:1243-9. PubMed PMID: 31327162.
9. Bautista-Hernández MA, Argueta-Figueroa L, Gómez-Jiménez DC, et al. Evidence of the acupuncture points stimulation for the treatment of hypogalactia: A systematic review and meta-analysis. Enferm Clin (Engl Ed) 2024;34:61-73. PubMed PMID: 38185370.
10. Hajian H, Soltani M, Mohammadkhani MS, et al. The effect of acupressure, acupuncture and massage techniques on the symptoms of breast engorgement and increased breast milk volume in lactating mothers: A systematic review. International Journal of Pediatrics (Mashhad) 2021;9:12939-50. doi:10.22038/ijp.2020.54458.4305
11. Rosetti MA, Spatz DL. Effects of acupressure on lactation: An integrated review. MCN Am J Matern Child Nurs 2022;47:345-52. PubMed PMID: 36227074.
12. Fang YW, Chen SF, Wang ML, et al. Effects of traditional Chinese medicine-assisted intervention on improving postpartum lactation: A systematic review and meta-analysis. Heliyon 2024;10:e27154. PubMed PMID: 38524574.
13. Bao QN, Yin ZH, Zhou YF, et al. Efficacy and safety of acupuncture for postpartum hypogalactia: A systematic review and meta-analysis of randomized controlled trials. PLoS One 2024;19:e0303948. PubMed PMID: 38843204.
14. Rahayu S, Hadisaputro S, Hidayat ST, et al. Effect of the combination of Roxy back massage (RBM) and lactapressure interventions on prolactin levels and breast milk production: A randomized controlled trial. NeuroQuantology 2022;20:2318-33. doi:10.48047/NQ.2022.20.20.NQ109233

15. Kvist LJ, Wilde Larsson B, Hall-Lord ML, et al. Effects of acupuncture and care interventions on the outcome of inflammatory symptoms of the breast in lactating women. Int Nurs Rev 2004;51:56-64. PubMed PMID: 14764015.
16. Kvist LJ, Hall-Lord ML, Rydhstroem H, et al. A randomised-controlled trial in Sweden of acupuncture and care interventions for the relief of inflammatory symptoms of the breast during lactation. Midwifery 2007;23:184-95. PubMed PMID: 17052823.
17. Mangesi L, Zakarija-Grkovic I. Treatments for breast engorgement during lactation. Cochrane Database Syst Rev 2016;6:CD006946. PubMed PMID: 27351423.
18. Mårtensson L, Kvist LJ, Hermansson E. A national survey of how acupuncture is currently used in midwifery care at Swedish maternity units. Midwifery 2011;27:87-92. PubMed PMID: 20092915.
19. Farshidfar B, Jafarpour H, Kordasiabi AHS, et al. The effect of massage and acupressure on breast engorgement: A review. International Journal of Pediatrics (Mashhad) 2020;8:11227-32. doi:10.22038/ijp.2020.47417.3847
20. Chen ML, Tan JY, Suen LK. Auricular therapy for lactation: A systematic review. Complement Ther Clin Pract 2017;29:169-84. PubMed PMID: 29122257.
21. Lee B, Kwon CY, Lee SH. Effectiveness and safety of auriculotherapy for breastfeeding: A systematic review. J Tradit Chin Med 2020;40:721-37. PubMed PMID: 33000573.
22. Alissa R, Lim M, Hutsell D. The use of auricular acupuncture in promoting breastmilk production in lactating mothers of infants in the neonatal intensive care unit. Breastfeed Med 2022;17:A5-A6. doi:10.1089/bfm.2022.29217.abstracts
23. Han S., Kim B., Park H. Auricular acupressure on breast pain among breastfeeding mothers receiving gentle hand techniques: A randomized, single-blind, sham-controlled trial. J Hum Lact 2024;40:248–58. PubMed PMID: 38379313.
24. Rabiee N, Ghasempour Z, Abolhassani M, et al. Comparing the effect of premature infant care training and performing auriculotherapy techniques on anxiety, general self-efficacy and breastfeeding self-efficacy of mothers with premature infants. Iran J Nurs Midwifery Res 2023;28:772-8. PubMed PMID: 38205410.
25. Jenner C, Filshie J. Galactorrhoea following acupuncture. Acupunct Med 2002;20:107-8. PubMed PMID: 12216598.
26. Campbell A, Macglashan J. Acupuncture-induced galactorrhoea--a case report. Acupunct Med 2005;23:146. PubMed PMID: 16259314.
27. Komorowski JM, Reterski Z, Owczarczyk I. Acupuncture therapy does not change metoclopramide-induced prolactin secretion in normoprolactinaemic galactorrhea syndrome. Endokrynol Pol 1984;35:231-4. PubMed PMID: 6542492.
28. Tureanu L, Tureanu V. A clinical evaluation of the effectiveness of acupuncture for insufficient lactation. Am J Acupunct 1994;22:23-7.
29. Zhao Y, Guo H. The therapeutic effects of acupuncture in 30 cases of postpartum hypogalactia. J Tradit Chin Med 2006;26:29-30. PubMed PMID: 16705850.
30. Wang HC, An JM, Han Y, et al. [Multicentral randomized controlled studies on acupuncture at Shaoze (SI 1) for treatment of postpartum hypolactation]. Zhongguo Zhen Jiu 2007;27:85-8. PubMed PMID: 17370485.
31. He JQ, Chen BY, Huang T, et al. [Randomized controlled multi-central study on acupuncture at Tanzhong (CV 17) for treatment of postpartum hypolactation]. Zhongguo Zhen Jiu 2008;28:317-20. PubMed PMID: 18652318.
32. Wei L, Wang H, Han Y, et al. Clinical observation on the effects of electroacupuncture at Shaoze (SI 1) in 46 cases of postpartum insufficient lactation. J Tradit Chin Med 2008;28:168-72. PubMed PMID: 19004195.
33. Neri I, Allais G, Vaccaro V, et al. Acupuncture treatment as breastfeeding support: Preliminary data. J Altern Complement Med 2011;17:133-7. PubMed PMID: 21303190.
34. Tian HY, Wei LY, Wu CZ. [Penetration needling at special points for 40 cases of stopping lactation]. Zhongguo Zhen Jiu 2014;34:1035-6. PubMed PMID: 25543446.
35. Esfahani MS, Berenji-Sooghe S, Valiani M, et al. Effect of acupressure on milk volume of breastfeeding mothers referring to selected health care centers in Tehran. Iran J Nurs Midwifery Res 2015;20:7-11.

36. Chen C, Yan Y, Gao X, et al. Effects of cesarean delivery on breastfeeding practices and duration: A prospective cohort study. J Hum Lact 2018;34:526-34. PubMed PMID: 29365288.
37. Zhu Y, Liu Y, Quan X. [Application of acupoint massage in postpartum hypogalactia in puerpera]. Zhongguo Zhen Jiu 2018;38:33-7. PubMed PMID: 29354934.
38. Lu P, Ye ZQ, Qiu J, et al. Acupoint-tuina therapy promotes lactation in postpartum women with insufficient milk production who underwent caesarean sections. Medicine (Baltimore) 2019;98:e16456. PubMed PMID: 31464890.
39. Sulymbona N, As'ad S, Khuzaimah A, et al. The effect of acupressure therapy on the improvement of breast milk production in postpartum mothers. Enferm Clin 2020;30 (Suppl 2):615-8. doi:10.1016/j.enfcli.2019.12.002
40. Erfina, Ahmad M, Usman AN, et al. Potential of acupressure to be complementary care by midwives in postpartum women's breast milk production. Enferm Clin 2020;30 (Suppl 2):589-92. doi:10.1016/j.enfcli.2019.12.001
41. Sarı E, Güngör Satılmış İ. The effect of acupressure on lactation in non-breastfeeding mothers after preterm cesarean delivery. Health Care Women Int 2023;44:361-73. PubMed PMID: 36219142.
42. Zhan J, Huang N, Meng N, et al. Lactation prescription plus acupoint stimulation improves breastfeeding quality and alleviates breast tenderness in parturients undergoing cesarean section. Am J Transl Res 2023;15:539-47. PubMed PMID: 36777860.
43. Lin QP, Xu JB, Yang J, et al. Effects of auricular thumbtack needle on lactation function and TDP-43/Btn1A1/XDH pathway in primiparous women with cesarean section. Zhongguo Zhen Jiu 2023;43:771-5. PubMed PMID: 37429656.

# Substance Identification

## Substance Name

Acupuncture

## Drug Class

Breast Feeding

Lactation

Milk, Human

Acupuncture Therapy

Acupressure

Complementary Therapies

Galactogogues