



## Papaya

Revised: November 15, 2023.

## Drug Levels and Effects

### Summary of Use during Lactation

Papaya (*Carica papaya*) fruit contains the proteolytic enzymes papain and chymopapain before ripening, but they are not present in the ripe fruit. Cooked, unripe papaya fruit has been used orally in India, Melanesia and Angola, and papaya leaves have been used in Indonesia as galactagogues;[1-5] however, no scientifically valid clinical trials support this use. Galactagogues should never replace evaluation and counseling on modifiable factors that affect milk production.[6,7] Papaya leaves, which contain papain and other enzymes, are also used in some products, but have no known lactation-related uses. No data exist on the excretion of any components of papaya into breastmilk or on the safety and efficacy of papaya in nursing mothers or infants. Papaya fruit is "generally recognized as safe" (GRAS) as a food by the U.S. Food and Drug Administration. Papaya also contains carotenoids and can improve beta-carotene and vitamin A status in nursing mothers.[8] Allergic reactions to papaya, such as asthma and skin rashes are not uncommon and cross reaction with other substances such as latex and kiwi have occurred. Those with allergies to papaya or cross reacting substances should avoid papaya.

### Drug Levels

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

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

### Effects in Breastfed Infants

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

### Effects on Lactation and Breastmilk

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

### References

1. Sayed NZ, Deo R, Mukundan U. Herbal remedies used by Warlis of Dahanu to induce lactation in nursing mothers. *Indian J Tradit Knowl* 2007;6:602-5.

**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.

2. Bourdy G, Walter A. Maternity and medicinal plants in Vanuatu. I. The cycle of reproduction. *J Ethnopharmacol* 1992;37:179-96. PubMed PMID: 1453707.
3. Rasiya Beegam, A, Nayar TS. Plants used for natal healthcare in folk medicine of Kerala, India. *Indian J Tradit Knowl* 2011;10:523-7.
4. Jendras G, Monizi M, Neinhuis C, Lautenschläger T. Plants, food and treatments used by BaKongo tribes in Uíge (northern Angola) to affect the quality and quantity of human breast milk. *Int Breastfeed J* 2020;15:88. PubMed PMID: 33097071.
5. Sayuti NA, Atikah N. The pattern of herbal medicines use for breastfeeding mother in Jogonalan, Klaten, Indonesia: a mini survey. *BMC Complement Med Ther* 2023;23:399. PubMed PMID: 37936188.
6. Brodribb W. ABM Clinical Protocol #9: Use of galactogogues in initiating or augmenting maternal milk production, second revision 2018. *Breastfeed Med* 2018;13:307-14. PubMed PMID: 29902083.
7. Breastfeeding challenges: ACOG Committee Opinion, Number 820. *Obstet Gynecol* 2021;137:e42-e53. PubMed PMID: 33481531.
8. Ncube TN, Greiner T, Malaba LC, Gebre-Medhin M. Supplementing lactating women with pureed papaya and grated carrots improved vitamin A status in a placebo-controlled trial. *J Nutr* 2001;131:1497-502. PubMed PMID: 11340106.

## Substance Identification

### Substance Name

Papaya

### Scientific Name

*Carica papaya*

### Drug Class

Breast Feeding

Lactation

Milk, Human

Complementary Therapies

Food

Phytotherapy

Plants, Medicinal