



Papaya

Revised: May 15, 2024.

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 galactogogues;[1-5] however, no scientifically valid clinical trials support this use. Galactogogues should never replace evaluation and counseling on modifiable factors that affect milk production.[6,7] 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-reactions 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

A nonblinded study in Indonesia randomized postpartum women with perceived low milk supply to either an herbal decoction containing 25 grams *Sauropus androgynus* (katuk) leaves, 10 grams *Coleus amboinicus* (torbangun) leaves and 5 grams papaya leaves (n = 60) or to 500 mg *Sauropus androgynus* extract (CV Al-Ghuroba, Indonesia; n = 60). Patients were to take the product and weigh their infant twice daily for 28 days. Maternal serum prolactin was measured on day 14 and 28. Breast milk volume and infant's weight increased on days 14 and 28, and serum prolactin levels in decreased in both groups; however, the changes were not

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statistically significant. Mean infant weights increased, with no difference between the two treatments. Two mothers in the combination group and 3 in the extract group had increases in aspartate aminotransferase and/or alanine aminotransferase.[9]

A randomized, but not placebo-controlled trial gave postpartum mothers (n = 30) a mixture containing *Sauropus androgynus* extract, papaya leaves, mung beans, tamarind and sugar. One bottle of 400 mL of the mixture was taken daily for 4 weeks postpartum. A control group (n = 30) received breastfeeding counseling only. The amount of breastmilk produced was estimated weekly for 4 weeks by weighing mothers before and after feeding, although it is unclear how this was done and by whom. Daily milk production in the third week (801 vs 656 mL) and fourth week postpartum (909 vs 757 mL) was greater in the women who consumed the galactagogue mixture.[10]

References

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Substance Identification

Substance Name

Papaya

Scientific Name

Carica papaya

Drug Class

Breast Feeding

Lactation

Milk, Human

Complementary Therapies

Food

Phytotherapy

Plants, Medicinal