

Candida Protocol

It is important to get the best latch possible when you have sore nipples. Even if the cause of sore nipples is *Candida*, improving the latch can decrease the pain. With the “ideal” latch, the baby covers more of the areola (brown or darker part of the breast) with his lower lip than the upper lip. Note also that the baby's nose does not touch the breast. Note it is not always easy to change the latch of the older baby. For videos showing how to latch on a baby, go to www.drjacknewman.com.

Diagnosing *Candida albicans* (yeast)

This can be difficult and mothers should not attempt to self diagnose. The pain due to *Candida albicans* is often confused with pain due to poor latching, and/or pain due to vasospasm /Raynaud's phenomenon. A good practitioner will help you to differentiate between these conditions.

For Nipple Pain: Specific Local Treatment of the Nipple

A. APNO (All Purpose Nipple Ointment) is a compounded ointment mixed from the following ingredients:

- Mupirocin 2% ointment (15 grams)
- Betamethasone 0.1% ointment (15 grams)
- To which is added miconazole powder so that the final concentration is 2% miconazole. This combination gives a total volume of just more than 30 grams. Clotrimazole powder (not as good as miconazole) to a final concentration of 2% may be substituted if miconazole powder is unavailable, but both exist (the pharmacist may have to order it in, but compounding pharmacies almost always have it on hand). Using powder gives a better concentration of antifungal agent (miconazole or clotrimazole) and the concentrations of the mupirocin and betamethasone remain higher. Sometimes we will add ibuprofen powder to a final concentration of 2%.

The ointment is applied sparingly after each feeding (except the feeding if/when the mother uses gentian violet). “Sparingly” means that the nipple and areola will shine but you won't be able to see the ointment. Do not wash or wipe it off, even if the pharmacist asks you to. The APNO can be used for *any cause* of nipple soreness ("all purpose nipple ointments"), not just for *Candida* (yeast). Use the ointment until you are pain free for a few days and then decrease frequency over a few days until stopped. If you are not having less pain after 3 or 4 days of use, or if you need to be using it for longer than two or three weeks to keep pain free, ***get good help or advice.***

If Not Getting Better...Add:

B. Gentian violet (see handout: *Using Gentian Violet*). Use once a day for four to seven days. If pain is gone after four days, stop gentian violet. If better, but not gone after four days, continue for seven days. Stop after 7 days no matter what. If not better at all at four days, stop the gentian violet, continue with the ointment as below and seek good help. Gentian violet comes as a 1% solution in water. It also *usually* dissolved in 10% alcohol, as gentian violet is not soluble in pure water. This amount of alcohol is negligible, as the baby will only get a drop of gentian violet. Apparently some pharmacists will dissolve it in glycerine instead of alcohol, if you wish. 2% gentian violet *should not* be used.

Or:

C. Grapefruit Seed Extract (GSE), active ingredient must be “citricidal”. Should be followed by, and used in conjunction with, the APNO (All Purpose Nipple Ointment). Apply *diluted* solution directly on the nipples. It does not need to be refrigerated. It may be covered and used until solution is finished.

To dilute GSE:

- Mix very well 5- 10 drops in 30 ml (1 ounce) of water.
- Use cotton swab to apply on both nipples and areolas *after* the feeding.

- Let dry a few seconds, and then apply “all purpose nipple ointment”.
- If also using Gentian Violet, do not use GSE on that particular feed but use after all other feeds.
- Use until pain is gone and then wean down slowly over the period of at least a week.
- If pain is *not* significantly improving after two to three days, increase the concentration by 5 drops per 30 ml (ounce) of water. Can continue increasing concentration until 25 drops/ 30 ml of water
- If flaking, drying, or whiteness appears on the skin, substitute pure olive oil for APNO 1-3x/day and decrease the concentration of the GSE drops. If the flaking does not get better, stop the GSE drops.
- Laundry can be treated as well: add 15-20 drops in the rinse cycle of all wash loads
- May be used in conjunction with oral GSE and Probiotics

If Not Getting Better and/or the Pain is in the Breast as Well (Need to Treat Systemically)

Add:

D. Oral GSE: Grapefruit seed extract (*not* grape seed extract, active ingredient must be “citricidal”), tablets or capsules, 250 mg (usually 2 tablets) three or four times a day orally (taken by the mother). If preferred the liquid extract can be taken orally, 10 drops in water three times per day (though this is not as effective). Oral GSE can be used before trying fluconazole, instead of fluconazole, or in addition to fluconazole in resistant cases.

And/or

E. Probiotics: Acidophilus with bifidus (with FOS (fructo-oligosaccharides) is okay). The mother should take 1-2 capsules (strength of 10 billion cells) 2-3x/day. **The probiotics should be taken at least 1 hour apart from oral GSE.** Baby should be treated with Probiotics 2x/day for approximately 7 days (Mother may wet her finger and roll it in probiotic powder (break open a capsule), and let baby suck on mother’s finger right before a feeding).

If Still Not Getting Better at All...

Add:

F. Fluconazole: (see handout Fluconazole) If pain continues and it is sure the problem is *Candida*, or at least reasonably sure, *add* fluconazole 400 mg loading, then 100 mg twice daily for at least two weeks, until the mother is pain free for a week. The nipple ointment should be continued and the gentian violet can be repeated. Fluconazole should not be used as a first line treatment. If used, fluconazole should be *added* to above topical and oral treatments, not used alone. Fluconazole takes three or four days to start working, though occasionally, in some situations, it has taken 10 days to even start working. If you have had *no relief at all* with 10 days of fluconazole, it is very unlikely it will work, and you should stop taking it.

G. Other Medications: For deep breast pain, ibuprofen 400 mg every four hours may be used until definitive treatment is working (maximum daily dose is 2400 mg/day).

Questions? Email Jack Newman at drjacknewman@sympatico.ca, or Edith Kernerman at breastfeeding@sympatico.ca or consult: Dr. Jack Newman’s Guide to Breastfeeding (called The Ultimate Breastfeeding Book of Answers in the USA) or our DVD, Dr. Jack Newman’s Visual Guide to Breastfeeding; or The Latch Book and Other Keys to Breastfeeding Success; or L-eat Latch & Transfer Tool, or the GamePlan for Protecting and Supporting Breastfeeding in the First 24 Hours of Life and Beyond. See our website at www.drjacknewman.com. To make an appointment email breastfeeding@ccnm.edu and respond to the auto reply or call 416-498-0002.

Handout *Candida Protocol* Revised: May 2008
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