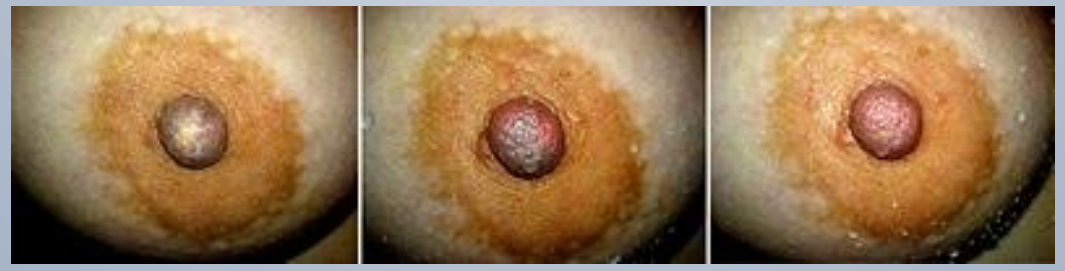
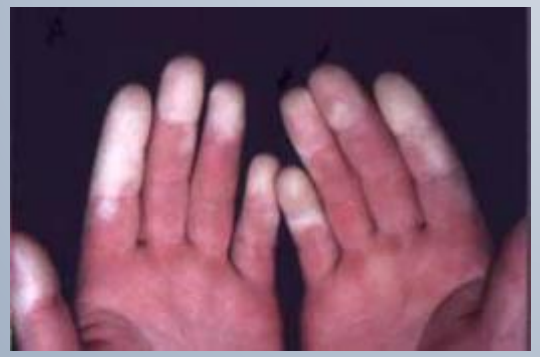
Reynaud's Phenomenon and Breastfeeding

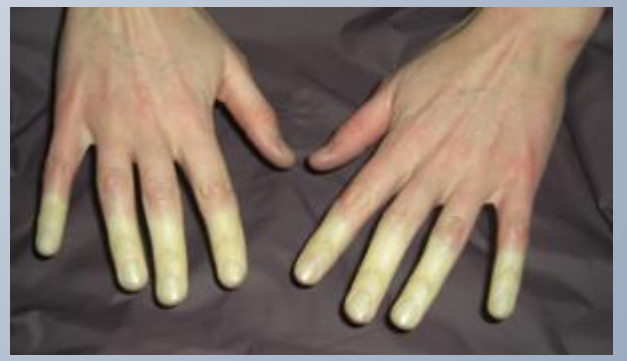
Dr Wendy Jones



Prevalence

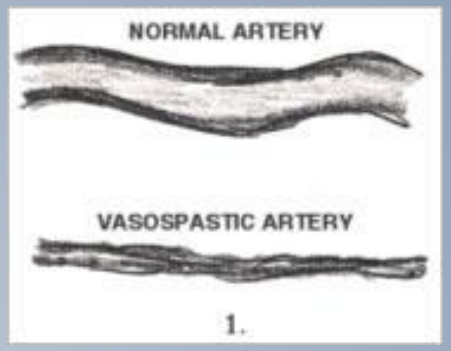
- Prevalence in women 9 times that in men
- Affects up to 22% of otherwise healthy women aged 21-50 years of age





First Described

Maurice Raynor 1862



"local asphyxia of the extremeties"

"episodic digital ischaemia provoked by cold and emotion"

- Originally described as affecting acral parts of the body, mainly fingers and toes but can affect ear lobes, nose and lips
- Can also affect coronary, GI, penile, placental, ocular, pulmonary vessels
- Suffers often also get migraines

Mavid Gunther 1970

Psychosomatic sore nipples

" when the nipples are being examined they blanch, usually the whole face goes white because of the shutting down of the blood supply. Sometimes whilst they are still being inspected the blood supply is restored and the nipples can be watched becoming a mulberry colour. The mother who has this very real trouble usually has some fear or unhappy association connected with breasts or breastfeeding"

Poor attachment

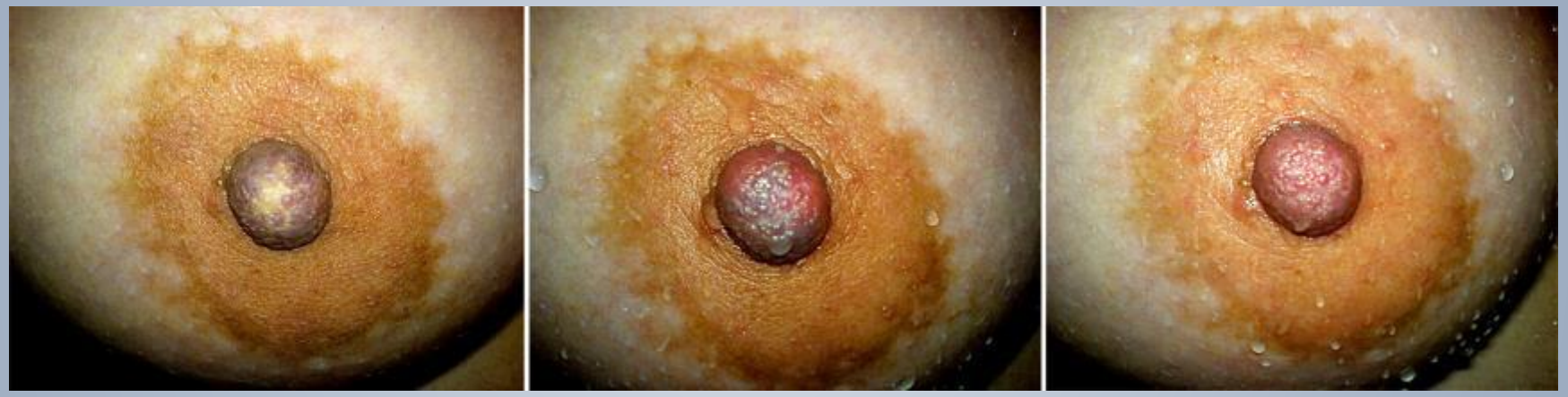
- Poor attachment can cause blanching of the nipple by mechanical compression
  - But not precipitated by cold
  - No history during pregnancy
  - no symptoms between feeds

This is vasospasm not Raynaud’s

Symptoms of Reynaud's Phenomenon

- Excruciating pain even when not breastfeeding
- Pain triggered by cold – even exposing nipples to the air but especially when walking down freezer aisle of supermarket or after shower
- Colour changes to nipple after a breastfeed
  - Pallor (due to vasoconstriction)
  - Cyanosis (deoxygenation of blood)
  - Rubor (reflex vasodilatation)
- Feeling described as "Burning, tingling, numbness or stinging"
- Often confused with thrush and treated as such unsuccessfully and can actually be worse due to fluconazole

Tri phasic colour change



Pallor
(white)

Cyanosis
(blue)

Rubor
(red)

Holmen L and Backe B. Underdiagnosed cause of nipple pain presented on a camera phone. BMJ 2009; 339:b2553

Case study based on a real mum

- pain so bad she has set deadline of 3 days before she gives up: she's been told she has thrush but symptoms haven't responded to two lots of treatment
- Baby 5 weeks old, cracked nipples, had mastitis recently, has a rash on the areolar. Described pain all the time but particularly bad when she gets cold.
- 2nd child – first born in summer breastfed without problems
- Currently pain is so bad she cant bear toddler near her
- History of Reynaud's and has taken nifedipine in the past but not currently
- Rash on breast near where she has been using nipple shield (sounded as if she was using Fairy liquid to help them stick on?)

Coates 1992

- First published case study
- Mother reported severe pain and tri-phasic colour change 3 or more times a day, every day, for over 4 months.
- Affected both nipples simultaneously
- Description of pain;
  - Very painful
  - Burning / stinging
  - Deep ache into back
  - Took an hour to resolve

Coates M. Nipple pain related to vasospasm J.Hum.Lact 1992;8(3):153

Coates 2

- Moist heat helped but didn't cure
- Heat pad on other nipple as she fed
- Pain for first few moments as fed – active nursing comfortable – possibly because baby's mouth warm
- Several treatments for thrush didn't help
- Mum noticed occurred when chilled or stressed
- Pain free in warmer months
- No history of migraines, high BP etc

Kahl 1990

- Studied pregnancy outcomes of 67 women with Reynaud's compared with controls
- Pre-term births more common in those who already had Reynaud's before pregnancy
- Mean full-term birth weight lower in all mothers with Reynaud's
- Placental vessels affected by Reynaud's, restricting blood supply to infant because of vasoconstriction

Kahl LE, Blair C , Ramsey-Goldman R , Steen VD , Pregnancy outcomes in women with primary raynaud's phenomenonArthritis and Rheumatology 1990;33(8):1249-55

Lawlor-Smith and Lawlor-Smith 1997

- 5 patients with severe, debilitating nipple pain
- 3 had had before in previous lactation– a) gave up bf at 6w, b)breastfed 14m, c) breastfed 7m despite pain
- Cold precipitated pain
- 2/5 had triphasic colour change, 3 biphasic
- 5/5 blanching during, after, between feeds
- None smoked

- 2 had history of Reynauds, 2 had parents with Reynauds
- 4/5 nipple trauma, difficult to heal

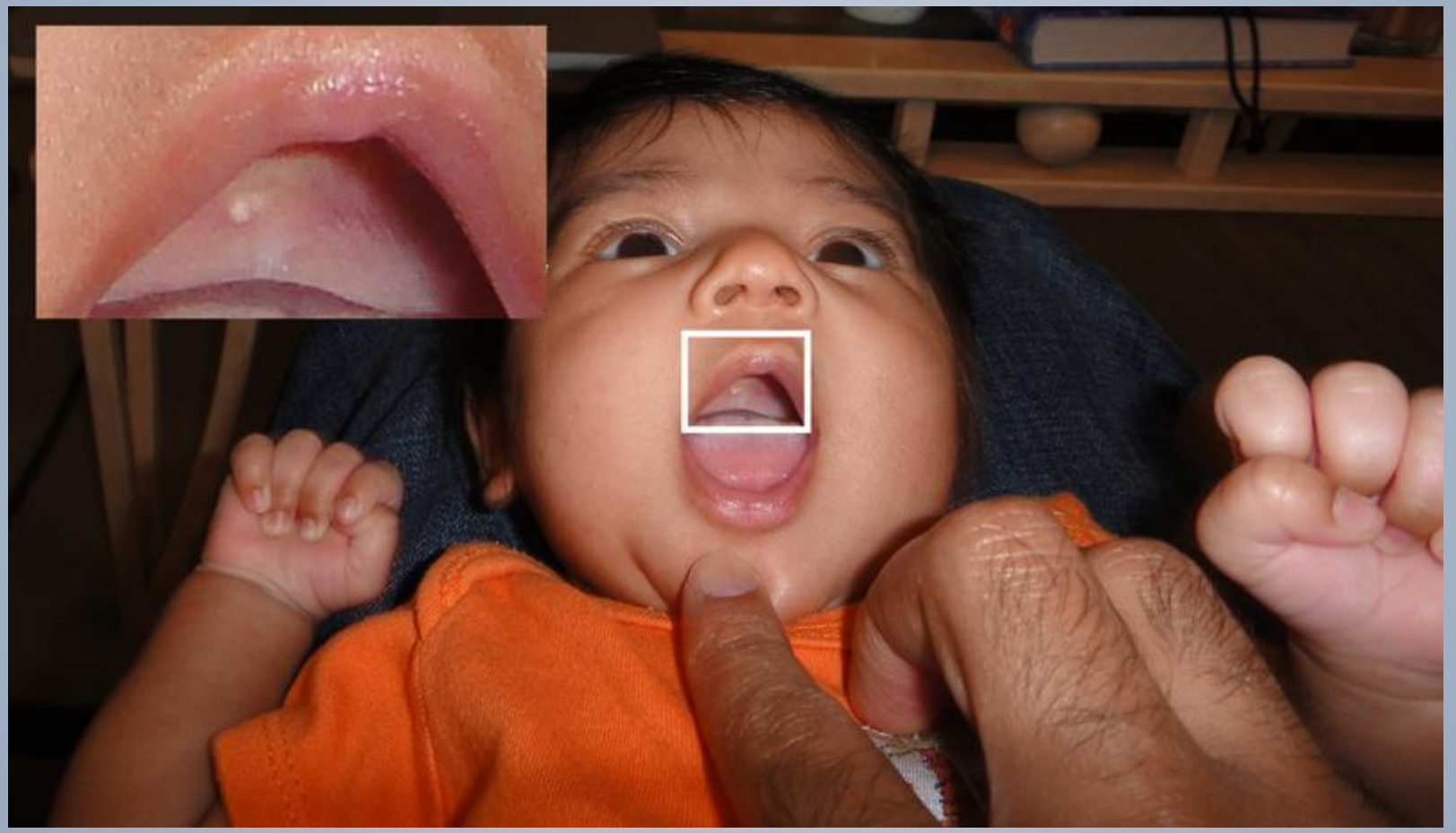
Lawlor-Smith L and Lawlor-Smith C Vasospasm of the nipple: a manifestation of Raynaud's's Phenomenon: case reports. BMJ 1997; 324:644

Morino and Winn 2007

- 24 year old, Induced at 39 weeks (oedema and elevated blood pressure)
- Mother smoked prior to pregnancy but gave up early in first trimester
- Had antibiotics for sinus infection at 37 weeks
- Assessed by 2 LCs – good and effective feeding but mum still describing pain
- Day 17 diagnosed with thrush – topical nystatin cream and suspension – no improvement
- Day 27 only expressing and bottle feeding
- White patch in baby' mouth was Epstein pearl
- Feed watched and triphasic colour change noted
- Mother had history of migraines

Morino C and Winn S Reynaud's phenomenon of the nipples: an elusive diagnosis JHL 2007 23(2):191-3

Epstein pearl



Morino and Winn (2)

- Mother remembered when she played basketball at college she needed warm shower to relieve nipple pain
- Mum chose to take Vitamin B6 150-200mg for 4 days then 25mg daily – stopped after 1 week as no relief (need to be taken for 6 weeks minimum)
- Mum decided to take one feed at a time rather than set long term goal of exclusive breastfeeding for 6m
- Painful breastfeeding and stress reduced – pain free
- Re-occurrence of symptoms when mum went back to work then resolved
- For mum stress was trigger for painful breastfeeding

Email Help with migraine meds

- I usually have bad circulation (chillblanes and white fingers), but this stopped in pregnancy too, so I think my migraines are probably tied up with issues of circulation.
  Baby born 8lb 5oz. She lost a fair bit of weight quickly, and almost 3 weeks on is now 7lb 12 oz. The midwives are happy that she's thriving, but we're still desperately working to get her weight up.

- I've had problems breastfeeding - gradually getting better - but part of the problem has been frequent migraines, which are knocking me out - the headaches are stressing my body so it's producing less milk?

- I do actually get white nipples directly after she comes off, and they then go deep red for a while then normal colour of pale pink (I'm very fair skinned), and I do get pain afterwards (although I'm still having pain much of the time whilst feeding - painful let down, and sporadic nipple trauma - so it's hard to distinguish one kind from the other sometimes! But we're persevering. I use nipple shields when nipples very bad).

- Poor circulation wouldnt affect milk production. She was struggling with Raynaud’s but didn’t realise it. Was the stress of the pain causing the migraines? Nifedipine MIGHT make headaches worse

Managing Reynaud's Phenomenon

- Check attachment first
- Avoid cold, smoking , caffeine
- Avoid decongestants, pill, fluconazole (thrush treatment can make pain worse)
- Try moderate aerobic exercise if mum wishes
- Consider diet if BMI <20
- Minimise stress if this is a trigger

Managing cold

- Keep the whole body warm
- Feed in a warm environment
- Wear warm clothing
- Cover the nipples as quickly as possible
- Wool breast pads
- Dry heat e.g. rice sock, wheat bag
- Massage warm olive oil into nipples

Supplements

- High doses of vitamin B6 (Newman 2012), magnesium (Smith 1960, Turlapaty, Leppert1994), calcium (DiGiacomo 1989), fatty acids (Belch 1985) and fish oil supplementation (DiGiacomo 1989) have also been suggested but take a minimum of 6 weeks to be effective.
- Ginger 2000mg-4000mg daily. Capsules usually contain 500mg. It may also be beneficial to add ginger to the diet, to drink ginger tea, or to put a spoonful of ground ginger in bathing water (Royal Free Hospital)

References for supplements

- Newman 2019 www.breastfeedinginc.ca/vasospasm-and-raynauds-phenomenon
- Smith WO, Hammarsten JF, Eliel LP. The clinical expression of magnesium deficiency. JAMA 1960; 174:77–8.
- Turlapaty P, Altura BM. Magnesium deficiency produces spasms of coronary arteries; relationship to etiology of sudden death ischemic heart disease. Science 1980; 208:198–200
- Leppert J, Myrdal U, Hedner T, Edvinsson. The concentration of magnesium in erythrocytes in female patients with primary Raynaud's phenomenon; fluctuation with the time of year. Angiology 1994; 45:283–8.
- Belch JJ, Shaw B, O'Dowd A, Saniabadi A, Leiberman P, Sturrock RD, Forbes CD.Evening primrose oil (Efamol) in the treatment of Raynaud's phenomenon: A double-blind study. Throm Haemost 1985; 54 (2):490–4
- DiGiacomo RA. Fish oil supplementation in patients with Raynaud's's Phenomenon: a double blind, controlled, perspective study. Am J Med 1989; 86:158-64
- Royal Free hospital www.royalfree.nhs.uk/pip_admin/docs/Raynaudsnatural_186.pdf

SMOKING

- Even 2 cigarettes a day are enough to increase vascular resistance by 100%
- Cutaneous blood flow reduced by 40%
- Nicotine is what has this affect
- NRT may be enough to trigger

CAFFEINE

- May exacerbate symptoms
- Caffeine is a vaso-dilator but causes reflex vaso-constriction
- Not just tea and coffee, cola-type drinks, lucozade
- Some painkillers contain caffeine

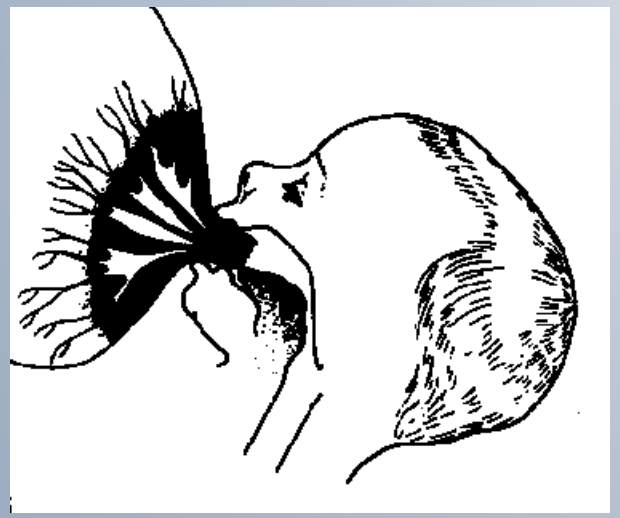
Vasospasm and Raynaud's.

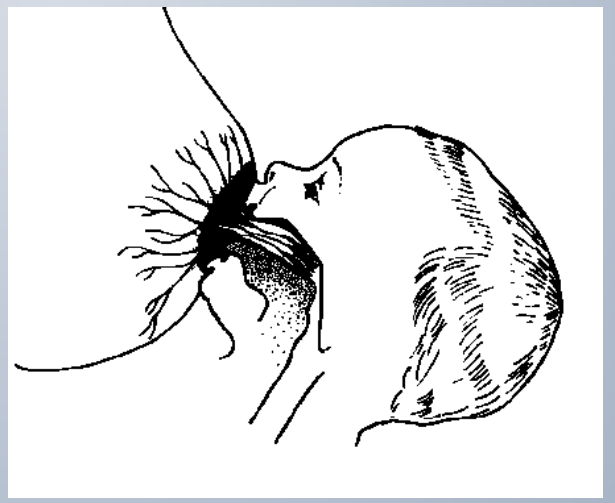
Are they the same?

I don't think so – vasospasm does not respond to medication

Cause of vasospasm

- Shallow latch
- Baby clamping down to slow fast flow of milk
- Tongue tie





Differentiating vasospasm from Reynaud's

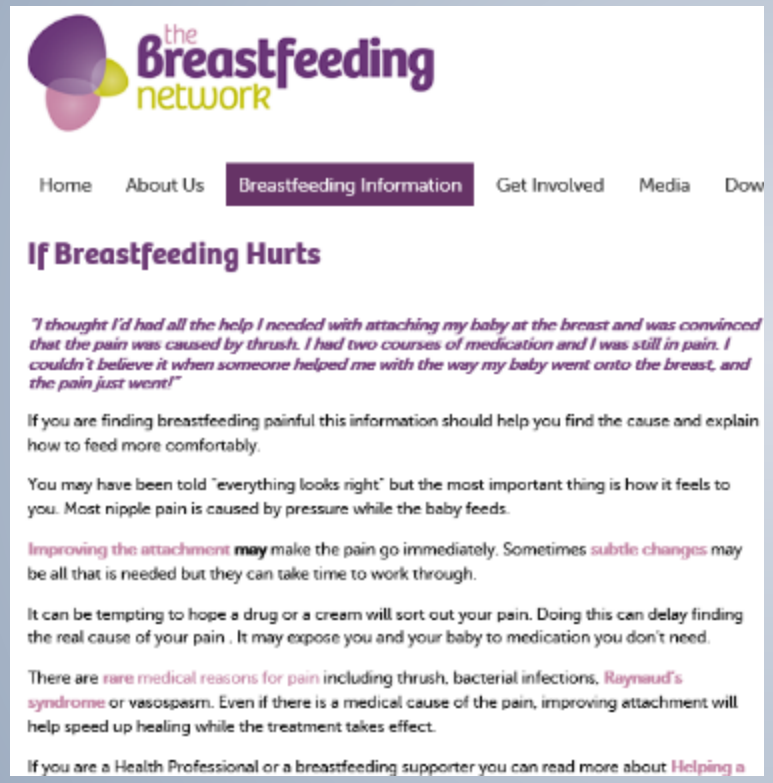
- Nipple white after feed
- Vasospasm nipple flattened, creased, pointed after feed
- May be white stripe
- Doesn't get worse with cold
- No history of Reynaud's or migraines
- Nifedipine wouldn't work

LOOK AT POSITIONING AND ATTACHMENT FIRST AND LAST

Cause of sore nipples

- ALMOST all cases of sore nipples should be treated as less than perfect attachment first, second and last
- Go back to basics
- Watch and listen or refer to someone who has expertise to assess attachment
- Don’t look for a medical condition or a drug as a magic wand

If breastfeeding hurts ……



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If Breastfeeding Hurts

"I thought I'd had all the help I needed with attaching my baby at the breast and was convinced that the pain was caused by thrush. I had two courses of medication and I was still in pain. I couldn't believe it when someone helped me with the way my baby went onto the breast, and the pain just went!"

If you are finding breastfeeding painful this information should help you find the cause and explain how to feed more comfortably.

You may have been told "everything looks right" but the most important thing is how it feels to you. Most nipple pain is caused by pressure while the baby feeds.

Improving the attachment **may** make the pain go immediately. Sometimes subtle changes may be all that is needed but they can take time to work through.

It can be tempting to hope a drug or a cream will sort out your pain. Doing this can delay finding the real cause of your pain . It may expose you and your baby to medication you don't need.

There are rare medical reasons for pain including thrush, bacterial infections, Raynaud's syndrome or vasospasm. Even if there is a medical cause of the pain, improving attachment will help speed up healing while the treatment takes effect.

If you are a Health Professional or a breastfeeding supporter you can read more about Helping a

If there is pain in one breast

Then

- there is a greater probability of pain being due to attachment

If there is pain in both breasts

Then

- always consider improving attachment, even if there is a medical basis for pain

If pain strongest at start of feed:

If

- The nipple has changed shape when the baby comes off the breast – either lipstick shaped or flattened
- Baby slurps onto nipple rather than attaching with open gape
- There are visible signs of trauma or pressure on nipple

Then

- Attachment is the most likely cause
- Seek assessment by a

If

- Pain continues despite support from skilled practitioner to improve attachment by breastfeeding practitioner

Then

- Consider tongue-tie.
- Assess for tongue tie and palate anomalies
- refer for frenulotomy if appropriate
- http://www.unicef.org.uk/BabyFriendly/Parents/Problems/Tongue-Tie/

www.breastfeedingnetwork.org.uk/if-breastfeeding-hurts-05-may-2015/

More information

- Jones W Breastfeeding and Medication
- https://breastfeeding-and-medication.co.uk/fact-sheet/february-is-raynaud-s-awareness-month-www-sruk-co-uk
- www.breastfeedingnetwork.org.uk/raynauds/
- Hale TW Medications and Mother's Milk
- LactMed Nifedipine www.ncbi.nlm.nih.gov/books/NBK501047/
- For more information please email wendy@breastfeeding-and-medication.co.uk