Reduce the Pain of Vaccination in Babies

A Guide for Parents

Why is vaccination pain a concern?

- Vaccinations are a routine part of a baby's medical care. They protect a baby from serious diseases.
- Most babies experience pain from vaccinations. Pain can cause a baby to develop a fear of doctors, nurses and needles.
- No parent wants to see a baby in pain. Some parents delay or stop vaccinations because of pain. This can leave a baby without protection from serious diseases.

Plan ahead to reduce pain

- Read this guide to learn about 3 ways you can reduce your baby’s pain during vaccinations. These methods are proven to be safe and effective. You can combine the different methods for better results.
- Plan what you will do for your baby’s next vaccination. Tell your baby’s health care provider so they can support your goals.
- Carry this card with your baby’s vaccination record, and pack any supplies you will need in your baby’s diaper bag.
- After your baby’s vaccination, judge how much pain your baby had. Observe your baby’s:
  - body movements (calm or thrashing?)
  - face (neutral or locked in a grimace?)
  - sounds (silent or high-pitched cry?)
- Use what you see to plan what you will do the next time to reduce your baby’s pain.

1. What you can give

**TOPICAL ANAESTHETIC CREAM, GEL OR PATCH**
- In Canada, you can buy topical anaesthetics to reduce the pain from needles without a prescription: EMLA™ (lidocaine-prilocaine), Ametop™ (tetracaine), or Maxilene™ (lidocaine).
- They dull pain where the needle enters your baby’s skin.
- They are safe for babies, even newborns.
- Apply them at home or at the clinic before the needle.
- For babies under 1 year of age, apply to the upper outer part of the leg; for children aged over 1 year, apply to the upper arm. If your baby is getting more than one needle, apply to both legs or both arms.
- If using the patch, just peel off the backing and stick the patch on the skin. If using the cream or gel, squeeze out 1 g (about the size of a 5-cent coin) on the skin and cover it with the dressing provided or with plastic wrap.
- You have to wait for topical anaesthetics to take effect. Leave them on the skin undisturbed for the recommended waiting time: 60 minutes for EMLA™; 45 minutes for Ametop™; and 30 minutes for Maxilene™.
- Remove the medicine after the waiting time. Your baby’s skin may appear whiter or redder than normal. This is okay and will go away.
- Allergic skin reactions are rare. If there is a rash, talk to your baby’s health care provider about it. It could be an allergic skin reaction.

**SUGAR WATER**
- You can use sugar water to reduce your baby’s pain. Sugar water is safe for babies, even newborns.
- Make sugar water at home or at the clinic by mixing 1 teaspoon of white sugar with 2 teaspoons of distilled or boiled water. For babies over 6 months, you may use tap water if the tap water is safe for drinking.
- Give your baby some sugar water 1 or 2 minutes before the needle.
- Use a dropper (or syringe) to place the sugar water into the side of your baby’s mouth between the cheeks and gums. Give your baby one drop at a time and let your baby suck on the sweet taste.
- You may also dip a soother (pacifier) into the sugar water and give it to your baby before, during, and after the needle.

SEE OVER FOR PAGE 2
A Guide for Parents

2. What you can do

BREASTFEED YOUR BABY
- If you are breastfeeding, start to breastfeed your baby before the needle. Make sure you have a good latch. Then continue breastfeeding during and after the needle.
- Breastfeeding combines holding, sweet taste, and sucking and is one of the best ways to reduce pain in babies.
- Breastfeeding during needles is safe for babies, even newborns. There is no evidence that babies will choke or associate their mothers with pain.
- Undress your baby to free the leg(s) or arm(s) where the needle will be given before you start breastfeeding.
- If your baby cannot breastfeed, hold your baby and use sugar water and a soother.

HOLD YOUR BABY
- Position your baby upright and hold your baby close before, during and after the needle. This helps your baby to feel secure and to stay still.
- Sit on a chair or lean against the examination table to minimize the risk for accidental falls.
- Make sure to undress your baby to free the leg(s) or arm(s) where the needle will be given.
- Don’t hold your baby too tightly. If you do, your baby may get upset.

YOUR STATE OF MIND
- Try to stay calm, use your normal speaking voice, and be positive before, during, and after the needle. This will help your baby stay calm. Babies see and feel what their parents are doing, and often do the same.
- If you are nervous, you can take a few slow, deep breaths to calm yourself. Breathe so your belly expands, not your chest. You can do this while holding your baby.

DISTRACT YOUR BABY
- Taking your baby’s focus away from the pain can reduce your baby’s pain.
- While holding your baby close, distract with singing, talking, or sucking (breastfeeding or soother) before, during, and after the needle. Add rocking your baby back and forth after the needle.
- You may choose to distract an older baby with toys such as bubbles, pop-up books, rattles, or smartphones. If toys do not work, hold your baby close and distract with singing, talking, or sucking (breastfeeding or soother) before, during, and after the needle and add rocking your baby back and forth after the needle.
- The way you distract your baby once may not work the next time. Be prepared to change what you are doing to keep your baby distracted.

Adapted from CMAJ December 14, 2010 182:E843-E855 by permission of the publisher.
© 2010 Canadian Medical Association