Reduce the Pain of Vaccination in Children Under 3 Years

A Guide for Parents

Why is vaccination pain a concern?

- Most vaccines are given with a needle. This can be painful and frightening for children.
- Pain can cause a child to develop a fear of doctors, nurses and needles.
- No parent wants to see a child in pain. Some parents delay or stop vaccinations because of pain. This can leave a child without protection from serious diseases.

Plan ahead to reduce pain

- Read this guide to learn about 3 ways you can reduce your child'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 child's next vaccination.
- Some strategies require preparation ahead of your child's visit:
 - 1) Sugar water can be prepared at home or at the clinic by mixing 1 teaspoon of sugar with 2 teaspoons of water.
 - Topical anaesthetics can be applied at home or at the clinic to numb the skin these can be purchased at a pharmacy without a prescription.
- 3) Toys for distracting your child can be packed and brought to your child's visit.
- Tell your child's health care provider so they can support your goals.
- To see a video, visit Immunize Canada at http://immunize.ca/en/parents/pain.aspx OR download the ImmunizeCA app at http://immunize.ca/app
- After your baby's vaccination, judge how much pain your child had. Observe your child'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 child's pain.

1. 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 child cannot be breastfed, you may bottle feed your child or give a soother before, during and after vaccination.

HOLD YOUR CHILD

- Hold your child on your lap or hug your child during the needle. This will help your child stay still and feel secure.
- Sit on a chair to minimize the risk of accidental falls.
- Make sure to undress your child to free the leg(s) or arm(s) where the needle will be given.
- Don't hold your child too tightly. This can increase pain and distress.
 You may rock your child back and forth after the needle.



Reduce the Pain of Vaccination in Children Under 3 Years

A Guide for Parents

2. What you can give

SUGAR WATER

- You can use sugar water to reduce your child's pain.
- Sugar water is safe for children, 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 child some sugar water 1 to 2 minutes before vaccination, using a dropper (or syringe). Place it into the side of your child's mouth between the cheeks and gums.
- If your child uses a soother, the soother can be dipped into the sugar water and given to your child **during** the needle. Combining sugar water with a soother and holding your child can simulate aspects of breastfeeding.
- If your child is getting a vaccine called rotavirus, then you do not need to give sugar water because the rotavirus vaccine has sugar in it.

TOPICAL ANAESTHETIC CREAM, GEL OR PATCH

- In Canada, you can buy topical anaesthetics without a prescription. Available products include: EMLA™ (lidocaine-prilocaine), Ametop™ (tetracaine), or Maxilene™ (lidocaine).
- They dull pain where the needle enters your child'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. Confirm the location with your child's health care provider. If your child is getting more than one needle, apply to both legs or both arms.
- You have to wait for topical anaesthetics to take effect. Apply to injection site between 30 and 60
 minutes before the needle, according to manufacturer instructions.
- Remove the medicine after the waiting time. Your child's skin may appear whiter or redder than normal. This is OK and will go away.
- Allergic skin reactions are rare. If there is a rash, talk to your child's health care provider about it. It could be an allergic skin reaction. If your child experiences an allergic skin reaction, use another product the next time.

3. How you can act

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 child stay calm. Children see and feel what their parents are doing, and often do the same.
- Avoid using reassuring statements like "It'll be over soon" and "You're OK". Reassurance can increase distress and pain.
- 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 CHILD

- Taking your child's focus away from the pain can reduce your child's pain.
- While holding your baby close, distract with videos (for example, mobile devices), toys and music.
- Start distracting your child **before** the needle but distract only when your child is calm enough to do so; otherwise, distress may be increased.
- The way you distract your child once may not work the next time. Be prepared to change what you are doing to keep your child distracted.







Adapted from CMAJ 2010;182:E843-55 and CMAJ 2015;187:975-82 with permission of the publisher, the Canadian Medical Association.







