Vaccine injections can be painful and stressful for children, parents and clinicians, but you can really make a difference.

For your next vaccine injection, plan with parents to make it less painful and stressful.

**Ask parents to:**
1. Apply topical anaesthetics to numb the skin – these can be purchased at a pharmacy without a prescription.
2. Distract the child – use an age-appropriate item.

**Talk about:**
1. What will happen: “You will get a vaccine in the arm with a needle.”
2. How it will feel: “There may be a pinch, pressure or pushing for a few seconds.”
3. What you will do to manage discomfort: “We are going to do some things so it does not bother you.”
4. What the child will do: “You can help by choosing a toy to bring.”

Do not tell children “it won’t hurt” because evidence shows that this is ineffective and promotes distrust. Instead, tell them how potential discomfort will be minimized.

Read the 4 P’s of vaccination pain management below and combine these evidence-based strategies to improve pain relief.

For more information and a video, visit the SickKids (The Hospital for Sick Children, Toronto, Canada) website: www.aboutkidshealth.ca/pain-free-injections

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**STEP 1: PHARMACOLOGICAL (PAIN MEDICINE)**

**TOPICAL ANAESTHETICS**
- Available products: lidocaine (Maxilene™), tetracaine (Ametop™), lidocaine-prilocaine (EMLA™).
- Apply to injection site 30 to 60 minutes before injection.
- Two doses may be needed (one for each arm) if 2 or more injections are being given.
- May cause temporary reddening or whitening of skin – this is normal. If a rash appears it could be an allergic reaction – be aware of this.

**STEP 2: PSYCHOLOGICAL (THOUGHTS AND BEHAVIOURS)**

**Deep breaths**
- Direct parents to stay calm and use a normal speaking voice. This will help the child stay calm.
- If they are nervous, prompt parents to take slow, deep breaths before and during injection. They should breathe so their stomach expands, not their chest.
- Prompt children 3 years and older to take slow deep breaths too. Using bubbles or a pinwheel can help children to breathe deeply and also distracts them.

**Distract**
- Distract the child before injection, and continue during and after injection. Stay focused on the child and help the child stay engaged in the distraction.
- Some distractions that can be used: talking, singing, counting, jokes, books, bubbles, pinwheels, toys and games.
- Acknowledge the child’s pain, but do not focus on it – this can increase pain and distress.

**STEP 3: PHYSICAL (BODY POSITION AND ACTIVITY)**

**Sit upright or hold**
- Have the child sit upright or have parents hold the child on their lap in a hug during injection. This feels good and helps the child stay still.
- Advise parents not to hold their child too tightly – this can increase pain and distress.

**RUB THE SKIN**
- For children 4 years or older, offer to rub or stroke the skin near the injection site with moderate intensity right before and during injection. This creates ‘white noise’.

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**STEP 4: PROCEDURAL (INJECTION TECHNIQUE)**

**Rapid intramuscular injection, no aspiration**
- Perform all intramuscular injections quickly without prior aspiration. Aspiration is unnecessary because the sites used for vaccination are devoid of large blood vessels.

**NO ASPIRATION**
- When multiple injections are to be given, inject the most painful one last.
- There is insufficient evidence for or against simultaneous injections.

**ORDER OF INJECTION**

**Give the most painful last**

These are scientifically proven ways of reducing pain in children during vaccine injections.

Talk with the parent about what worked and plan ahead to make the next vaccination less painful.