Magic Tricks for Needle Sticks

Several techniques can make procedures "magically" better! Use these tips before, during, and after a procedure to make make the experience a positive one.

Before Procedure: Provide an age-appropriate explanation of what will happen for the child, and give a chance to ask questions. Language matters:

- % Use the words bother, tight squeeze, or pressure in place of hurt, sting, shot/needle
- If asked "Will it hurt?" be honest and calm. Say:
 - •It's probably not going to be that big a deal for you.
 - •Let's make a plan to make it more comfortable.
 - •The tight squeeze may not be fun, but that part is so short. It may not even bother you.

During Procedure: Immediately effective interventions include letting children sit in a "position of comfort" on a parent's lap and using distractions.

- **Don't apologize!** Apologizing and empathizing ("I'm sorry, it's okay honey, I know...") ironically increase distress.
- Face the child toward the parent, sitting on the lap. For an IV, rest the child's arm on the exam table while the parent gives them a hug. For shots, face a child sideways in the parent's lap, so the shot arm can be relaxed. When parents secure the child, the child feels more secure.

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Magic Tricks for Needle Sticks

(Continued from front)

Distraction with Props:

- Blow bubbles, pinwheels, or a kazoo.
- Find small details, or count things on bright pictures (or use DistrACTION® Cards).
- Have the child focus on the vibration or ice pack from Buzzy or move attention away from the procedure. Rub on toes, or massage the other arm.

Distraction without Props:

- 🥯 Color Cloud the child holds a big breath, then imagines breathing a color out during the procedure. Try aiming puff at held up fingers, or imaginary targets!
- 参 Touch or tickle the uninvolved arm, direct the child to concentrate on these sensations instead.
- 🅯 Tell a story with child-given details: What color is the castle, what kind of animal, what dessert is on the King's table?
- Count anything dots, ceiling tiles, letters in a sign.

After Procedure:

- Praise the child no matter what!
- More detailed instructions can be found on BuzzyHelps.com



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Advanced Needle Fear Solutions

Needle phobia can cause dread days before a procedure, resulting in moving home shots to a medical setting, or even discontinuing effective treatment. Before this happens, try a "do over" for children ages 4-10.

Kids are used to having new rules. When you are 100% consistent after calling a "do over," kids usually adapt in 1-3 events. "OK, this isn't working. Let's change this, make a plan for next time, and you choose what you want to try."

- 1) Write down coping options to make the new deal official. Have the *child* keep track of what worked. This gives them control and offers some objectivity about the process of making shots better.
- **2) Change body position.** Lying on the back provokes anxiety. Try lying on the side, or sitting up in a low chair with the leg extended, not flexed. Tensing muscles makes shots worse, so extended but relaxed is the best. For arms, let the shoulders relax. For gluteal injections, lying prone (face down) is better than bending over. When possible, sitting on a parent's lap is a comforting position.
- 3) Choose a new active distraction. Focus attention away from the injection. Play a video game, blow on a kazoo, or count items you find in the room. Passive watching or listening usually do not work as well.

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Advanced Needle Fear Solutions

(Continued from front)

- **4) Stimulate other Sensations.** Take a big sip of something cold and sweet right at the moment of the injection. Have your child turn Buzzy on and off in their hand. Press Buzzy to your child's chest or other body part (for counter-stimulation).
- **5)** Create a reward system. Collect stickers, beads, or other kid currency for each injection towards a bigger prize.
- 6) Create a team reward! Decide on a prize for working on this together, like an outing to a movie or a favorite shop, collecting tokens toward the goal. The better you both do, the more points. Both of you performed the plan perfectly? Three tokens for each. You forgot to have the cold sweet drink nearby but otherwise did well? Two for you, three for her (and you got some feedback on what was most important to her). You lost it, they had to be dragged out from under a table? Well, 1 for her, 2 for you maybe, and the prize is still within reach. Having a tangible token actually helps.

Having a plan and feeling more in control can reset the fear wind-up. When fear sets in, remind her "No, no, this is going to be completely different, remember? We have our plan." Different methods work for different children, if one doesn't succeed, try another! Visit BuzzyHelps.com for more ideas, and if you have a solution of your own, email it to: info@paincarelabs.com



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7 Secrets for Shots

Here are 7 quick tips that can decrease injection pain and improve compliance with necessary medical treatments.

- 1) Distract the nerves. Use the ice pack and Buzzy on an injection site for 30-60 seconds to help numb the area before the shot. Slide Buzzy proximal (toward the head) to the site, with Buzzy's bottom end closest to the procedure. Leave in place and vibrating while giving the injection. If the medication stings, rub Buzzy on the site afterwards. For IV, place Buzzy under the tourniquet, no need to wait or move Buzzy.
- **2)** Relax the muscles. Pushing medication into taut muscles makes it hurt more, at the time and after the injection. Even passively stretched muscles hurt. Rather than bending over for a gluteal injection, try lying on your side with the buttocks muscles relaxed. Same thing for thigh shots: sitting up causes the muscles to be active, keeping you balanced. Try using a side position.
- **3) Distract your mind.** Counting and finding tasks can reduce pain by half. At a minimum, count corners, count ceiling tiles, count holes in an air grate. For more sophisticated tasks, bring DistrACTION® cards, or use a find & seek book.

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7 Secrets for Shots

(Continued from front)

- **4)** Distract the senses. The brain can process only so much at one time. Stimulate taste or smell to decrease pain. For example, immediately before a shot, guess the flavor of a cold and sweet mystery drink, a stick of gum, or breathe deeply from a layender or mint sachet.
- **5) Topical Anesthetics.** L.M.X.4° is over-the-counter, and works in 30 minutes to dull the first stick. Try using plastic cling wrap to hold L.M.X.4° in place; it pulls off painlessly!
- **6)** Blow! Blowing out physiologically calms nerves and reduces pain. For added fun, set up a pinwheel, bubbles, or grab a kazoo.
- **7) Focus on something you can control.** Whether you're pinching your own finger, or thinking about the health or life benefits of the shot, concentrate on that thought, action, or sensation.



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Topical Anesthesia Tips

Cream-based topical anesthetics are a well studied form of topical pain relief for IV access. Here are some pointers to maximize their effectiveness:

LMX4° is a liposomal delivery system allowing a 4% lidocaine preparation to be rapidly absorbed. While lacking a specific FDA indication for needle pain, it is widely used and is as effective in 30 minutes and EMLA is in 60 minutes for IV access. A 2017 study demonstrated equal pain relief and patient satisfaction in a pediatric ED using LMX4® or Buzzy for venipuncture. Buzzy was as effective in a tenth of the time, at 1/5th the cost.

EMLA contains 2.5% lidocaine and 2.5% prilocaine, and vasoconstricts for the first 60-90 minutes; pain relief begins around 45 minutes, deepening to 0.5cm over the next 3 hours. At 1.5 hours vasodilation begins, improving venipuncture success.

Consider using plastic cling wrap: It hurts less to remove than other occlusive dressings.

Synera is a stiff but less messy self-stick patch containing 70mg tetracaine and 70mg lidocaine recommended for children 3 years of age and older. The self-heating element enhances absorption, gives efficacy in 20 minutes, and results in some vasodilation.

For injections, Buzzy is more effective and better researched than LMX or EMLA. (Continued on other side) ©Pain Care Labs (a dba of MMJ Labs), All rights reserved, Buzzy is a registered trademark of MMJ Labs.



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Topical Anesthesia Tips

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review protocol. Syst Rev. 2018 May 22;7(1):78.

When time does not permit, Buzzy® works in about 15 seconds. It decreases IV pain 80% compared to nothing, and increases IV success compared to cold spray. It's proven as effective at pain relief as LMX. The AAA batteries last about 20 hours, or 400 pokes, before needing replacement.

	EMLA*	L.M.X.4 [®]	Synera®	Buzzy (Needle Pain Relief.)
Prep Time (min)	60	20-30	20	1
Hassle	+++	+++	+	++
Duration	4h	1h	3h	Contact
Vasoconstriction	Yes	No	No	No
Issues	Methemoglobinemia, rare purpura	Tegaderm removal pain	Patch may burn, danger if chewed	Vibration may Tickle
Cost Per Site	\$5.7	\$5.7	\$12	\$0.09

From Venipuncture Updates, ACEP newsletter April 2009

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Improving Infant Immunizations

To get all the protection they need, children under age two get a lot of shots. Fortunately, there are proven ways parents and providers as a team can improve comfort, decrease crying, and reduce the long term impact of pain.

Before Procedure: Breastfeeding during infant vaccines is proven to decrease distress. If not possible, a **sucrose solution** immediately before the injections is recommended. Sucking something during vaccines or drinking something sweet may help, too.

Topical anesthetics may help. L.M.X.4° is over-the-counter and can be put on 20 minutes before.

During Procedure: Give injections with the child in a "position of comfort".

- Skin to skin helps infants <1 month; cuddling or holding is recommended for all ages.
- Let children 3 years and older sit up in your lap; lying flat on the back provokes anxiety at all ages.
- Our red, black, and white DistrACTION° cards are designed for babies 6 months and younger. For older infants and toddlers, directing them to look at the brightly colored cards while asking the questions on the back can help.
- Holding a vibrating Buzzy* without ice against the chest, or directly proximal to the site of injections, can help provide a competing sensation.

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Improving Infant Immunizations

(Continued from front)

Nursing tips that make vaccines better:

- Give the least painful vaccine first, most painful injection last.
- Don't aspirate or warm the vaccines! Multiple studies show aspiration is not needed for vaccines, and makes pain and distress worse.
- Simultaneous injections decrease distress for infants younger than 1 year.
- Sequential injections are recommended for older children.
- Give injections in thigh at less than 11 months; use the arm when chubby enough.
- Parental presence and pain management education are recommended.

After Procedure:

- Dress and cuddle the infant to be ready to go as soon as shots are over.
- Change of venue or even altitude ("Let's stand up now!") helps distress, too.

More detailed instructions can be found on BuzzyHelps.com

Taddio A, . Reducing pain during vaccine injections: clinical practice guideline. Canadian Medical Journal 2015 August 24. Taddio A. Procedural and physical interventions for vaccine injections. Clin J Pain 2015 Oct;31S124-31.



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