

# 25 Tips to Improve Surgical Techniques for Tots to Teens

For an approach with less tears and less fear, implement these straightforward strategies before, during, and after procedures.

By Alanna Bree, MD

As with all things, experience is key to developing an effective approach to treating children and adolescents. Procedures for patients in this age group are no exception. Of course, experience is most helpful when it builds on good training—something that I was lucky to have with Annette Wagner, MD at Northwestern Children's Memorial Hospital in Chicago. She is a dear friend and wonderful mentor who taught me many of the tips that I am sharing with you below.

## During the Procedure

**1. Schedule procedures with sufficient time.** Consider setting aside a half-day for office-based procedures as it is difficult to work pediatric procedures into a busy clinic.

**2. Timing is everything.** Know what to expect from your patients and be prepared to adapt your approach to meet the needs and concerns of various age groups. In general, girls at about eight to nine years old and boys at about 10-11 years old tolerate outpatient procedures under local anesthesia.

**3. Maintain your cool.** Be relaxed and confident. Patients and parents will sense your mood and react positively. If you appear harried, apprehensive, or rushed, patients will sense this and adopt a similar attitude.

**4. Have sufficient support staff for assistance.** Consider how many "hands" you'll need during various pro-

cedures and staff accordingly. Failure to have enough staff available will lead to individuals bouncing from exam room to exam room which is inefficient, potentially distracting, and possibly problematic.

**5. Allow parents to remain in the room if desired.** But do not engage them in restraining the patient.

Ideally, parents are seated near the head of the child to provide for distraction and support. Swaddling of the patient with a sheet is a good way to immobilize infants and toddlers for short procedures such as laser or skin biopsies. Never restrain patients on a board.

**6. Allow patients to participate in decisions, such as the color of suture or dressings.** In addition to providing patients a sense of control, the "cool" factor may further enhance patients' satisfaction with the procedure.

**7. Engage the child in conversation at an age-appropriate level throughout the procedure.** It provides further distraction for the patient.

**8. Consider creative measures for distraction.** Blowing bubbles is helpful for distraction of younger children. Videos, headphones, radios, and hand-held video games are great distracters for older children and adolescents.

**9. Set up surgical trays outside of the room and cover all instruments to reduce anxiety.** The child should never see the needle or syringe. Have all instruments laid out and loaded on

the tray in advance to maximize efficiency and shorten the time of the procedure.

## Preoperative Topical Anesthesia

Topical anesthesia is ideal for many procedures involving pediatric patients because it is convenient, effective, and generally low-risk when used properly. To enhance patient satisfaction and optimize pain relief, consider the following:

- LMX and EMLA are both effective options worth considering.
- Use a thick amount of the cream at the application site (like frosting on a cake) and occlude with a polyurethane film.
- Do not rush. Application should be for no less than 60 minutes. Have the patient sit in the waiting room after application so that you can continue with other patients. The anesthetic can also be applied by the parents prior to the appointment. Provide clear instructions on time of application and occlusion, if necessary.
- Always take care to consider toxicity issues. No more than 1 gram to an infant less than 5kg and no more than 10 grams on a child one to six years old (greater than 10kg).
- You can also use preoperative acetaminophen or acetaminophen with codeine for pain control and as an anxiolytic.

**10. Position the child comfortably on the table with pillows and sheets as necessary.** Provide a relaxed atmosphere and tone. Allow children to bring in their own pillow, blanket, or stuffed animal to hold during the procedure.

**11. Explain in advance and on the child's level what to expect during the procedure.** Never use words such as "hurt," instead use words like "pinch." Above all, do not lie. If you do, you will lose the trust and cooperation of your patient.

**12. Position yourself and the drapes to obstruct the patient's view of the surgical site.**

**13. Hide any blood-tinged material on the tray and out of view of the patient.**

**14. Perform the procedure as quickly as possible without sacrificing good technique.** This will prevent anxiety and restlessness, which increases as the attention span decreases.

### **Suturing, Dressings, and Post-operative Care**

**1. Use more deep dermal sutures to maintain strength of the wound in a young, active child.** Limit epidermal sutures as the reactivity of children's skin is increased.

**2. Choose suture based on the site.** Choose interrupted or skin glue for the face; running cuticular for the scalp; running subcuticular for the extremities, axillae, or groin; inter-



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rupted over joints.

**3. Timing of suture removal is important:** five to seven days on the face, 10 to 14 days on the trunk and extremities, 12 to 14 days on the scalp.

**4. Apply steristrips for added support.** These should not be removed but allowed to peel off.

**5. Use bulky dressings to slow the patient down.** These should be left in place for 48 hours. Immobilize joints with orthopedic dressings and splints.

**6. Apply pressure dressing for the scalp with a head wrap maintained with tubular burn netting for 48 hours.**

**7. Instruct parents to administer Tylenol, which is usually sufficient for post-operative pain.**

**8. Instruct patients to keep the surgical site dry and covered post-operatively.**

**9. Patients should limit physical activities for 30 days after a procedure.**

**10. All scars require strict UV protection for the first year.** Physical coverage is necessary. Recommend covering scars on the face with tape in the summer. Additionally, the area should be protected with zinc oxide-containing sunblock all year long.

**11. Consider risks for hypertrophic scarring, particularly in patients with a history of it or in "high-risk" anatomic sites.** Simple interventions to consider include regular scar massage and use of silicone gel sheeting to help prevent scar formation. If hypertrophic scars develop, treatment options include intralesional steroids and pulsed dye laser.

### **Satisfaction is The Payoff**

When it comes to performing procedures in pediatric patients, success depends as much on the dermatologist's technical skill as it does on effectively handling the patient and his/her parents. By implementing these few easy strategies, dermatologists can enhance comfort, diminish anxiety, and improve post-procedural compliance.

Success doesn't require a significant investment of time or cost. Rather, some simple changes in approach combined with an emphasis on communication will pay off with more satisfied patients. ■