

**Give It Your Best Shot:  
Enhancing Technique and Minimizing Patient  
and Practitioner Trauma and Injury in  
Pediatric Injections**

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They/Them

# Objectives

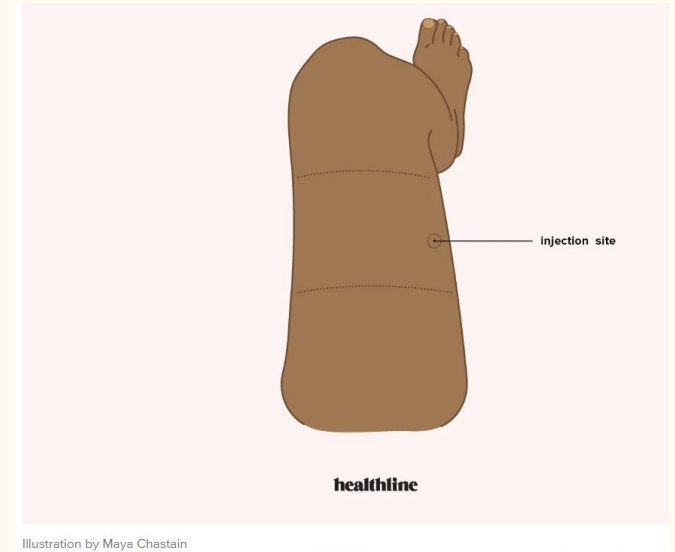
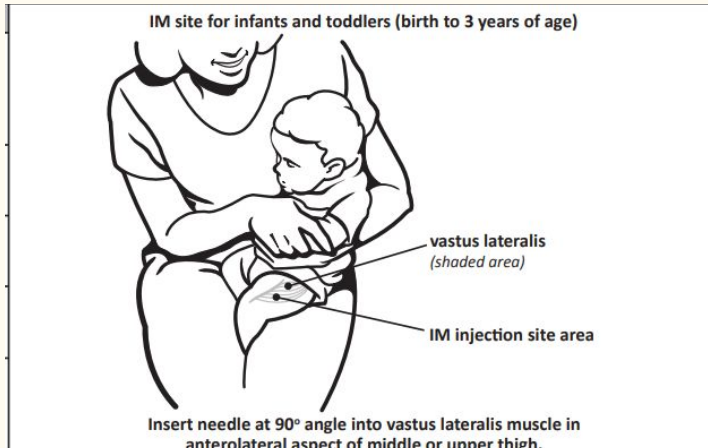
- To understand proper placement and techniques when giving pediatric injections
- To manage the environment in which injections will be given in order to promote success and safety
- To be aware of and learn to use various pain and fear management tools, techniques, and services
- To be able to practice and promote techniques that minimize trauma and enhance coping skills for both patients and practitioners

# Placement & Technique

# Intramuscular

## Vastus Lateralis

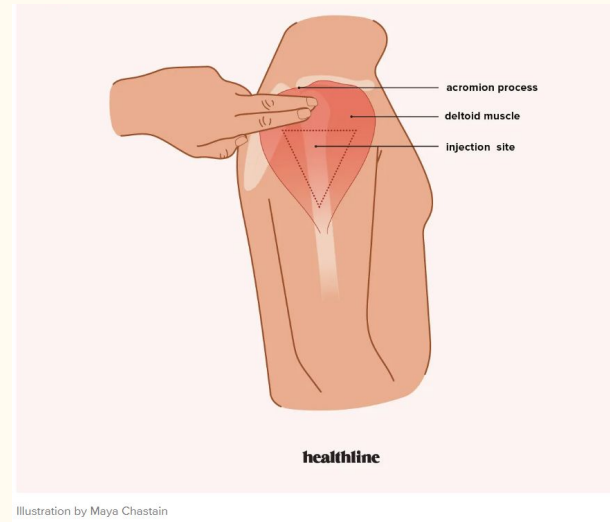
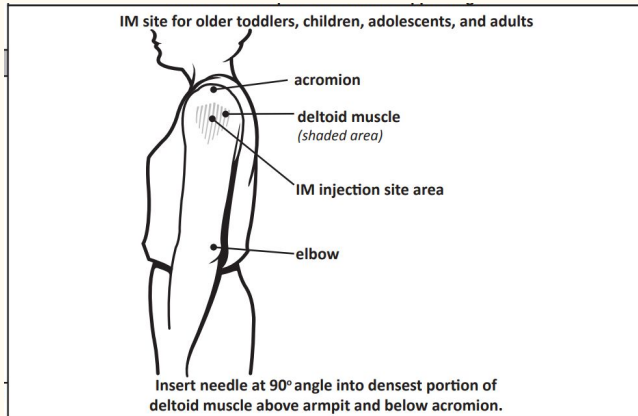
- Indicated for ages birth - 3
  - Can be used in older patients if safely able to administer into the muscle, or if situation demands
- Anterolateral aspect of the thigh
  - Look for larger area of the upper-mid outer thigh



# Intramuscular

## Deltoid

- Indicated for age 3+
  - With sufficient muscle mass
- Between midline acromion process and midaxillary line
  - Thickest portion of the deltoid muscle; have willing patient raise their arm

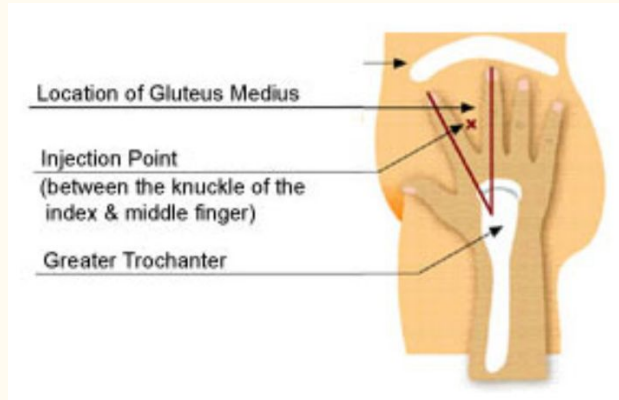


# Intramuscular

## Ventrogluteal

- Indicated for ages 7 months+
- Ventrogluteal muscle of the hip
  - Place palm on greater trochanter and thumb pointed toward front of leg
  - Forefinger on anterior iliac crest
  - Second finger spread back to make a V
  - Inject into the V

Note: Gluteal sites are uncommon in ambulatory pediatric settings.



# Intramuscular

- 90 degree angle
- Needle specifics:
  - 1" standard
  - 5/8" in smaller infants
  - 1 1/2" in larger patients
  - 23-25 gauge
- Avoid bruises or discoloration, previous injection sites, rashes, open wounds
- Separate multiple injections as much as safely possible
- Hold skin taut with other hand as you administer
- Determine site, amount, and needle sized based on patient size, age, and ability to safely and correctly administer

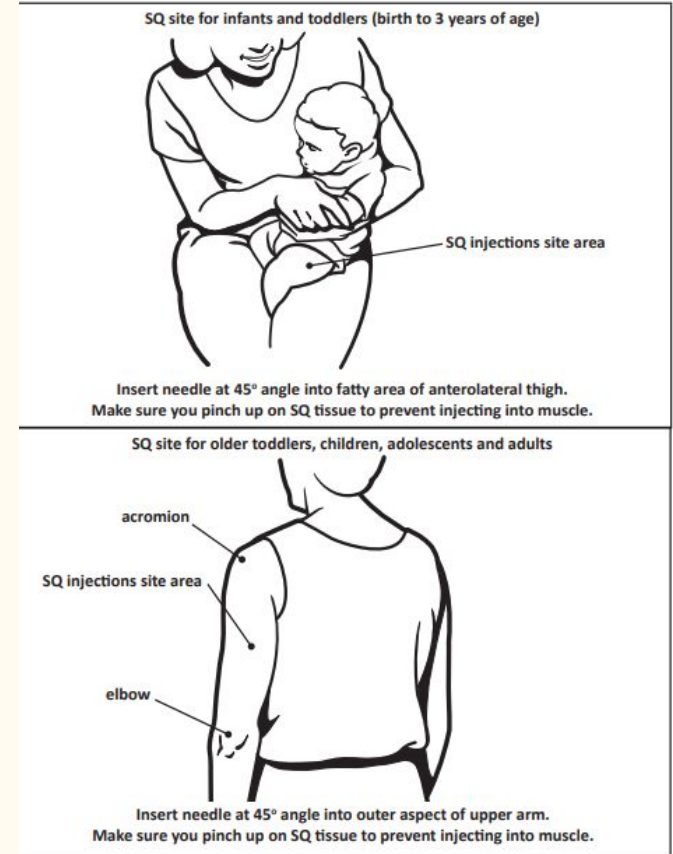
# Subcutaneous

## Thigh

- Indicated for birth - age 11, situation dependent
- Fatty area of upper outer thigh

## Arm

- Indicated for age 3+, situation dependent
- Fatty area of upper arm



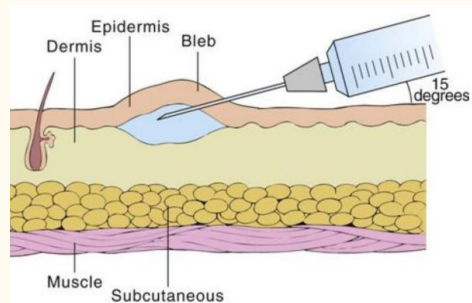


# Subcutaneous

- 45 degree angle
- Needle specifics:
  - $\frac{5}{8}$ " standard
  - 23-25 gauge
- Avoid bruises or discoloration, previous injection sites, rashes, open wounds
- Separate multiple injections as much as safely possible
- Avoid injecting into the muscle by pinching up on subcutaneous tissue
- Hold skin taut with other hand as you administer
- Determine site, amount, and needle sized based on patient size, age, and ability to safely and correctly administer

# Intradermal

- 15 degree angle
  - No more than 1/8" from top of skin
- Needle specifics:
  - 1/4 - 1/2" standard
  - 25-27 gauge
  - Bevel up
- Avoid bruises or discoloration, previous injection sites, rashes, open wounds, scars, or moles
- Use inner aspect of forearm
- Inject slowly for wheal formation
- Hold skin taut with other hand as you administer



# Environmental Management

# Ensuring a Safe Environment for Patient and Practitioner

## Patient

- Comfort people and items
- Unable or unlikely to grab at instruments, causing themselves harm
- Not in any unnecessary pain
- Not likely to aspirate or get injured

## Practitioner

- Patient in a safe and secure position, unlikely or unable to grab instruments or objects used to throw or hit
- Practitioner feels comfortable with patient/caregiver understanding and behavior
- Practitioner feels comfortable administering injection in proposed position

Tools, Techniques, & Services

# Tools

- Topical Analgesics and Numbing Agents
  - Gebauer's Pain Ease spray, Emla cream, lidocaine cream, numbing patches, etc.
  - Can be over-the-counter or prescription
- Shot Blocker
  - Works by confusing nerve signals to the brain
  - Added benefit: holds skin taut
- Buzzy
  - Works by confusing nerve signals to the brain
  - Hold “between the pain and the brain”
- ...And More!



# Techniques

## Get to know your patients

- Find or create a bond, even short term
  - You can talk about characters on clothing, favorite colors, comfort items, etc. with speaking children
  - With children too young or otherwise unable to speak, you can find if they like any special movements (clapping hands), songs, etc. that you can do with caregivers
- If this is a patient you see frequently, get to know their needs and preferences

## Demonstration

- Can show on caregiver, toy etc.
- Use as close to realistic instruments as possible, making them safe for the patient to handle on their own
- Let the patient practice on you!

## Distraction

- People, items, shows, conversation, singing, etc. can all be great distractions

# Techniques

## Developmentally-Appropriate and Comfortable Conversation

- Speak to the patient as much as possible
  - Explain the steps and expectations clearly, in patient-friendly language
    - Adjust as need for special cases
  - Use the 3 Ps:
    - Prepare
    - Procedure
    - Praise
- Body Language should be non-threatening:
  - Do not stand over, lean over or reach across your patient
  - Be on patient's eye level
- Consent is Key
  - Talk before you touch
  - Consent can be verbal or nonverbal
  - Respect as many “no” signs as you can
    - When not possible, acknowledge and explain why



# Techniques

## Comfort Positioning

- What is it?
  - Involving a caregiver or coworker to help comfort, support, and hold a child during a medical procedure
- Why use it?
  - Child feels more secure and comfortable
  - Non-threatening, non-aggressive
  - Safety of patient and practitioner can be ensured with fewer people in the room
  - Extremity can be isolated
  - Can eliminate need to lay down
    - Often an issue of control or fear for children
- When to use it:
  - Injections, IV starts, blood draws, catheterization, tube placement, swabs, sutures, exams, and more!

# Swaddle

- Allows infant to feel secure
- Gives parent a role
- Works well for injections, heel pokes, lab draws, nasal and throat swabs



# Chest-To-Chest

- Allows child to watch or look away
- Can isolate an extremity and minimize kicking
- Adult can be standing or sitting
- Works well for injections, IV starts, lab draws



# Chest-To-Back

- Allows child to sit up
- Prevents child's head from backing away
- Legs can be controlled
- Works well for injections, nasal and throat swabs, facial cares, catheterization



# Side Sitting

- Good option for bigger or older child, as well as distraction
- Able to isolate upper arm while controlling lower
- Legs can be controlled if necessary
- Works well for injections, lab draws, IV placement



# Side By Side

- Allows bigger or older child more autonomy while still feeling secure
- Can provide gentle help with holding body or extremities still
- Works well for arm injections, lab draws, IV placement



# Services

- Child Life Services
  - Ambulatory
  - Inpatient
  - Emergency
- Facility Tours
  - Typical spaces, typical experiences, typical expectations
- Behavioral Health
  - Reduce anxiety and trauma and identify root

# Trauma Minimization



# Patients

- Services already discussed
- Taking time and breathers as needed and appropriate
- Feeling safe, secure, and comforted
- Preparation
  - In the Facility
    - “We are going to do X at TIME.” “I am going to touch Y.”
  - At Home
    - “Tomorrow you will get X shots. Let’s make a plan.”
- Choices
- Rituals or Routines
- Honesty

# Practitioners

- Patient trauma minimization
- Swapping out or taking a break
- Ending on a good note
- Rationalization
- Coping Skills
- Leaving work at work
- Therapy

# Questions or Comments

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