

- Adolescents require a needle length of 25 to 51 mm (1 to 2 inches) in deltoid or vastus lateralis (Schechter, Zempsky, Cohen, et al, 2007).
- Inject into the vastus lateralis or ventrogluteal muscle; the deltoid may be used in children 18 months old or older.
- Use an air bubble to clear the needle after injecting the vaccine (theoretically beneficial but unproved).

References

Schechter NL, Zempsky WT, Cohen LL, et al. Pain reduction during pediatric immunizations: evidence-based review and recommendations. *Pediatrics*. 2007;119(5):e1184–e1198.

Zuckerman J. The importance of injecting vaccines into muscle. *BMJ*. 2000;321(7271):1237–1238.

Safety Alert

Emergency Management of Anaphylaxis*

Drug: Epinephrine 0.001 mg/kg up to maximum of 0.3 mg

Dose: EpiPen Jr (0.15 mg) intramuscularly (IM) for child weighing 8 to 25 kg (17.5 to 55 lbs.)

EpiPen (0.3 mg) IM for child weighing 25 kg (55 lbs.) or more

Observe for adverse reactions, such as tachycardia, hypertension, irritability, headaches, nausea, and tremors.

*Keet C: Recognition and management of food-induced anaphylaxis, *Pediatr Clin North Am* 58(2):377–388, 2011.

Hib vaccine is one of the safest vaccines available but may be