Immunization Reactions

Immunizations (vaccines) protect your child against serious diseases. About 25% of children have temporary symptoms following the standard vaccines of childhood, including the flu vaccine.

Symptoms of Immunization Reactions

- Temporary pain, swelling and redness can normally occur at the injection site and are usually the only side effects. Sometimes, the swelling and redness may be large (up to 2 inches). A hard lump may also be felt at the injection site. If these symptoms start within the first 48 hours, this is a normal reaction to the shot. These local symptoms may last 3 to 7 days and can be cared for at home.
- Any hives and itching around the injection site is normal and does not mean your child is allergic to the vaccine.
- Significant swelling occurs in 5% of children with the 4th (15 months) or 5th (4 years) dose of DTaP. This is not an allergic reaction and future DTaP vaccines can be given.
- Fever with most vaccines begins within 12 hours and lasts 1 to 2 days. Fevers mainly occur in younger children. This is normal and harmless.
- With live vaccines (MMR and chickenpox), fever and a mild rash occurs in 10% of children. This is normal and usually begins between 1 and 4 weeks after the shot.
- Abnormal reaction: A secondary bacterial infection at the injection site is very rare (less than 1 per 1000). Suspect if the redness or fever begins over 48 hours after the shot was given. Also, be on the look out for increasing pain after 48 hours.

How to Treat Normal Immunization Reactions

1. Reassurance:
   - All of these reactions mean the vaccine is working.
   - Your child's body is producing new antibodies to protect against the real disease.
   - No need to check with your doctor about normal reactions

2. Local Reactions at Injection Site:
   - Cold Pack: For initial pain or swelling at the injection site, apply a cold pack to the area for 20 minutes each as needed. After 48 hours, playing in warm bath water may help.
   - Pain Medicine: Give acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Advil).
   - Localized Hives: Apply 1% hydrocortisone cream (OTC) once or twice.

3. Fever:
   - For fevers above 102° F (39° C), give acetaminophen or ibuprofen. If younger than 6 months, avoid ibuprofen. Always give ibuprofen with food.
   - For all fevers: Give extra fluids. Avoid excessive clothing or blankets.

4. General Reactions:
   - All vaccines can cause mild fussiness, irritability and restless sleep for a day or so. Usually due to a sore injection site. Decreased appetite and activity level can also occur.
   - These symptoms do not need any treatment and will usually resolve in 24 to 48 hours.

5. Call Your Child’s Doctor If:
   - Redness becomes larger than 2 inches (5 cm). Larger than 1 inch for the first year of life.
   - Pain, swelling or redness gets worse after 2 days or lasts over 7 days
   - Fever starts after 2 days or lasts over 3 days
   - You think your child is having a serious reaction

Author: Barton D. Schmitt MD, Denver, CO. Copyright 2000-2010. Revised 12-1-2010