



What vaccines

are recommended now my baby is

4 months?

Now your baby is four months old, it is recommended they have three vaccines: the combined DTPa-Hib-IPV-HepB, 13vPCV and rotavirus vaccines. Each dose strengthens your baby's immunity to eight diseases (see next page). Two of the vaccines are needles, usually given in the baby's legs. The rotavirus vaccine is given as drops put into your baby's mouth to swallow.

How will the vaccines affect my baby?

Needles hurt a bit and most babies cry for a few minutes afterwards. Your doctor or nurse can do some things to make getting needles easier for your baby. They can give your baby the rotavirus vaccine drops before giving the needles. The drops contain sugar which is an effective pain reliever for babies.^{1,2} The doctor or nurse will be as quick and gentle as they can. They will even try to give both needles at once if they can.

There are some things you can do to help, too. Wrapping your baby firmly, cuddling them in an upright position, facing you, or breastfeeding during (or straight after) the needles are given reduce pain for babies.¹ If you'd prefer not to be in the room when your baby gets the needles, you can bring someone with you to do the cuddling. If you can't bring someone else, let your doctor or nurse know. They may be able to arrange someone to help.

Vaccines contain either parts of a germ or germs that have been weakened so they can't make babies sick. They work by showing the baby's immune system what the germs look like before they catch them. After having a vaccine, if one of those germs does get into the baby's body, the immune system will already know how to clear the germs away so they don't make the baby sick.

Vaccines can make some children feel a little unwell for a day or two. The most common reactions are redness, soreness or swelling where the needles went in, not wanting to eat very much, mild fever (temperature), grizzly or unsettled behaviour and sometimes vomiting or diarrhoea. Most of these symptoms last between 12 and 24 hours and then get better. Sometimes a small hard bump (nodule) develops in the spot where the needles went in, and this can take a few weeks to go away. Although these reactions can be unpleasant, they are a lot less serious than the diseases vaccinations protect babies from.

What can I do if my child gets one of these reactions?

If your baby feels hot, it can help to dress them in light (summer) clothes and offer lots of extra breastfeeds or, if your baby isn't breastfed, lots of small formula feeds through the day. If your baby has a sore, red spot where the needle went in, it can help to put a cool cloth on it. Research has found that cuddles really do make babies feel better. Using a baby sling makes

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it easier to get things done while cuddling a baby who doesn't want to be put down. Paracetamol (Panadol®, Dymadon®) can help ease a fever and relieve soreness. (Follow the instructions on the packet.) You can remind your doctor or nurse to give you a leaflet to help you remember these things today. **If you are worried about your baby's reaction to a vaccination, you can get help from your doctor, or the nearest emergency department, or call Health Direct on 1800 022 222 at any time of the day or night.**

Do vaccines work?

Vaccines almost always prevent babies from getting the diseases described below. Sometimes babies who have been vaccinated catch one of the diseases but they usually get much milder symptoms and recover more quickly than children who haven't had the vaccine.

What are the diseases these vaccines protect my baby from?

The three vaccines recommended for babies at four months strengthen immunity to eight diseases. The DTPa-Hib-IPV-HepB vaccine protects against diphtheria, tetanus, pertussis, Hib, polio and hepatitis B. The 13vPCV protects against pneumococcus. The rotavirus vaccine protects against rotavirus. You may not have heard of these diseases because they are less common than they were before vaccines were available in Australia, but children can still get them, especially if they aren't vaccinated.

Are the diseases serious?

Diphtheria is a serious disease that can cause a membrane (or skin) to grow over a child's throat and stop them from breathing. Diphtheria is very rare in Australia now, but the vaccine is still used to protect children from catching diphtheria from people who have travelled to places where it is more common.³

Tetanus (sometimes called lockjaw) affects all the muscles in the body, including the ones used for breathing. The germ that causes it lives in the soil, which means children can get it through a cut, a burn, a bite or even a prick.³

Pertussis is usually called whooping cough. It spreads very easily from one person to another through the air when someone who has it coughs or sneezes. The germ that causes it irritates the airways causing coughing fits that can be very severe. Small babies can die from whooping cough.³

Hib (Haemophilus influenzae type b) causes a variety of serious illnesses, including swelling around the brain (meningitis), blood poisoning (sepsis), swelling in the throat and infection in the lungs (pneumonia). Babies can die from the diseases caused by Hib and those who survive often have brain damage. Hib spreads from person to person just like a common cold.³

Polio causes muscle paralysis in the limbs and can also affect the breathing muscles and the heart. It is rare in Australia but more common in countries nearby. Children catch polio when they put their hands or toys in their mouths after someone who has the disease (but may not be sick yet) has touched them.³

Hepatitis B is a liver infection that often doesn't even make children sick when they first get it. Even if there are no signs at first, hepatitis B can cause serious liver diseases, including liver cancer, later in life. It spreads from one person to another, usually without either of them even knowing they have it.³

Pneumococcal disease is caused by germs (bacteria) that can cause swelling around the brain (meningitis), infection in the lungs (pneumonia), ear infections that can damage hearing, and other serious diseases. Children can catch it from each other just like they catch colds.³

Rotavirus causes diarrhoea and vomiting (gastroenteritis) that often makes children so sick they need to be admitted to hospital for treatment. Children catch it when they put something in their mouths that has been touched by someone who has the virus (but might not be sick yet).³

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I've heard vaccines can have serious side effects. Is this true?

Serious side effects can happen but they are very rare. About one child out of every 3000 have febrile convulsions³ (fits or seizures) in the days after a vaccination. This can happen when a child's temperature (fever) goes up suddenly. They stop happening when the child's temperature stops going up. Febrile convulsions happen more often when toddlers have an illness (like a cold) that give them a fever, than they do after vaccination. Those who have this reaction usually recover quickly without any long-term effects.³

About 59 in one million (1,000,000) children who get the rotavirus vaccine (drops) get a serious condition that causes a blockage of their intestine (called intussusception).³ Babies who have this illness look very sick. They usually have strong pain in their tummies that comes and goes. They may vomit and they usually look pale and seem weak or sleepy. Babies who have signs of this illness need to go to hospital quickly so they can get the help they need to get better. Intussusception is very rare.

About one in one million (1,000,000) children have a severe allergic reaction (called anaphylaxis) to one of the ingredients in one of the vaccines.³ If this happens, it usually happens before you and your baby leave the clinic and the medical staff are trained to help children who have this reaction to recover quickly. Anaphylaxis is frightening but extremely rare.

Side effects that last more than a few hours or a few days are extremely rare and happen for less than one in one million (1,000,000) vaccinated children.³ **If you are worried about your baby, you can get help from your doctor or the nearest emergency department or call Health Direct on 1800 022 222.**

Where can I get more information?

If you would like more information about childhood vaccination or the diseases they protect children from you can:

- go to the SKAI website, talkingaboutimmunisation.org.au
- or you can write your questions in the space below and ask your doctor or nurse when you see them.

What is next?

More vaccinations are recommended when your baby is six months old. Two of the vaccines recommended for babies who are four months old need to be given again when they are six months old. Repeating the 13PCV and the hexavalent vaccines helps make sure babies get the strongest and most long-lasting protection they can. It is important that babies and children get vaccinated on time to make sure they are protected as early as possible. From six months of age, it is also recommended that your baby gets the influenza vaccine during influenza season.

What questions would you like answered before getting your child's needles?

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I have no questions

References

1. Taddio A, et al. Reducing pain during vaccine injections: clinical practice guideline. Canadian Medical Association Journal 2015;187:975-982.
2. Matsuda E. Sucrose for analgesia in newborn infants undergoing painful procedures. Nursing Standard 2017;31(30):61-63.
3. Australian Technical Advisory Group on Immunisation (ATAGI). Australian Immunisation Handbook, Australian Government Department of Health, Canberra, 2018, immunisationhandbook.health.gov.au

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