



Newborn Care

Prevention and Health Education Unit
Prepared by Licensed Health Educators



Objectives

Recognize the tests and procedures performed on the newborn immediately after birth.

Identify the newborn's feeding methods and their main characteristics.

Describe the basic care of the newborn at home.



The arrival of the baby



- **Preterm birth:** occurs before completing 37 weeks of gestation.



- **Full-term birth:** occurs after 38 weeks of gestation.



The entire gestational process is important; however, in the final weeks, changes occur in the newborn that are essential for surviving outside the womb.

Premature birth

- Premature babies have low birth weight.
- Their organs have not had the opportunity to fully develop.
- They will need to stay for a period of time in the Neonatal Intensive Care Unit (NICU) at the hospital until their systems and organs can function on their own.



Premature Birth

Premature babies are at higher risk of having serious short- and long-term health problems, such as:

Respiratory, cardiac, and digestive system difficulties.

Visual, hearing, and feeding-related problems.

Motor development delays.

Higher risk of infections.

Jaundice (excess bilirubin in the blood).

Low red blood cell count (anemia).

Difficulty regulating body temperature.

Aggressive behavior, anxiety, or challenges interacting with others.

Learning, comprehension, and attention difficulties.



Tests performed at birth

Apgar test

It is an exam that is done at the first and fifth minute after the baby is born.

The score at minute 1 will indicate how well the baby tolerated the birth process. The score at minute 5 will indicate to the doctor how the baby is progressing and adapting outside the womb.



Parameters:

Apppearance, **P**ulse, **G**rimace (reflex), **A**ctivity (evaluation and flexion of extremities), **R**espiration

Health screening tests for the baby

Blood test: Several drops of blood are taken from the baby's heel. The blood is sent to a laboratory to analyze possible metabolic, hormonal, or genetic conditions.

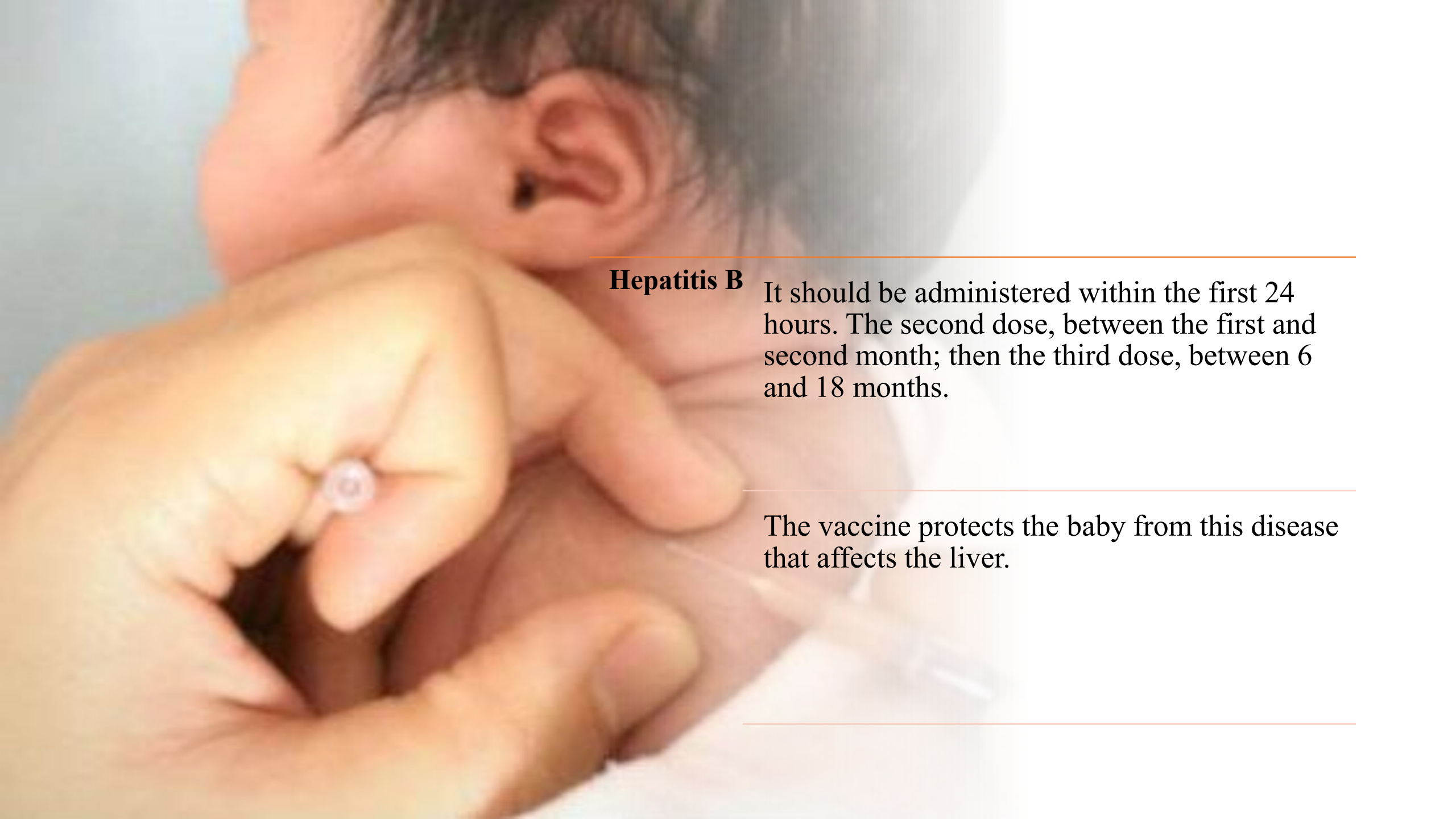
Audiometry: A small microphone is placed in the baby's ear to measure the response to sounds. Another method uses electrodes placed on the baby's head while the baby is calm or asleep.

Detection of critical congenital heart disease: A small sensor is placed on the baby's skin. This sensor is connected for several minutes to a machine called an oximeter, which measures the baby's blood oxygen levels.



Vitamin K Administration

- It is administered as a preventive treatment.
- It helps prevent bleeding that could occur due to the natural deficiency of this vitamin in newborns.
- The American Academy of Pediatrics (AAP) recommends supplementing with a single injection of vitamin K, given intramuscularly at birth.
- The World Health Organization (WHO) recommends that the injection be administered after the first hour of life.

A close-up photograph of a newborn baby's head and shoulders. The baby has dark hair and is looking towards the left. An adult's hand is visible, holding the baby's arm. A medical professional's hand is also visible, holding a small, clear, round object, possibly a vaccine vial or a small container, near the baby's arm. The background is a plain, light-colored surface.

Hepatitis B

It should be administered within the first 24 hours. The second dose, between the first and second month; then the third dose, between 6 and 18 months.

The vaccine protects the baby from this disease that affects the liver.

Newborn care: Welcome home!!



Safety rules when leaving the hospital in the vehicle



The car and the baby's car seat must have passed inspection by the Puerto Rico Fire Department.

Car seats have an expiration date; check it before using them.

Do not use second-hand car seats. They may be worn out, may have been in accidents, or may be expired, which reduces their protective capacity.

Safety rules when leaving the hospital:

The car and the baby's car seat must have passed inspection by the Puerto Rico Fire Department before using them.

Car seats have an expiration date; always check it.

Do not use second-hand car seats. They may be worn out, damaged, or expired, which reduces their protective capacity.



Safety rule when leaving the hospital

The car and the baby's protective seat must have passed the inspection of the Puerto Rico Fire Department.

Protective seats have an expiration date.

Do not use protective seats purchased at thrift stores. They may be worn or expired, so their protection loses effectiveness.



Safety when traveling in the vehicle:



Before every trip, check that the baby is properly secured in their car seat.



Children should **never** travel on an adult's or another child's lap, nor in the trunk of the car or the cargo area of pickup trucks.



Do not share seat belts. Every person in the vehicle must use their own seat belt.



Avoid placing toys or loose objects that could cause injury in the event of an accident.



Never leave the baby in the car seat without fastening the harness.



Place items such as a purse, cellphone, shoes, or laptop on the floor, at the foot of the car seat, to prevent them from flying around. Adjust the rearview mirror to maintain visibility of the child during the trip.

Umbilical Cord Care

When the umbilical cord is cut, a stump (a small piece of healing tissue) remains on the baby's belly button.

The stump should dry and fall off when your baby is between 5 and 15 days old.

Keep the stump clean using gauze and water only. Avoid letting the stump rub against the diaper.

Do not submerge the baby in a tub of water until the stump has fallen off. While waiting, you may bathe the baby with a damp cloth.

Let the stump fall off naturally. Do not try to pull it off, even if it is hanging by a thread.

If you notice that the area around the belly button or the stump is reddish or oozing, it may be a sign of infection. **Contact the pediatrician immediately.**



What can cause a baby to cry?

Babies may cry for no apparent reason, but they are always trying to communicate something. It can be difficult to understand what is bothering them.

Possible reasons:



Hunger:

Newborns eat every 2 to 3 hours, throughout the day and night.

Pain from gas or intestinal spasms:

Pain can occur if the baby has been overfed or if they have not been burped enough.

The foods a breastfeeding mother eats can also cause gas or discomfort in the baby.

Discomfort

For example, feeling the diaper wet.



What can cause a baby to cry?



Colic: Many babies between 3 weeks and 3 months of age develop a crying pattern associated with colic. Colic is a normal part of development that can be triggered by many factors and usually occurs in the late afternoon or evening hours.



Feeling cold or hot: Babies may cry because they feel too wrapped in their blankets or because they want to be kept warm.



Too much noise, light, or activity: This can overwhelm the baby gradually or suddenly.

Recommendations for when your baby is crying



Make sure your baby is breathing well and that their lips and the fingers of their hands and feet are warm and pink.

Ensure there are not too many stimuli around, such as noise, light, or wind.

Check for swelling, redness, rashes, cold fingers or toes, folded earlobes, or compressed fingers or toes.

Check that the baby is not too hot or cold.

Make sure your baby is not hungry.

Make sure you are feeding the baby the appropriate amount and burping them properly.

Stool colors



In a newborn, the first stools may be black. This is known as meconium and contains mucus, skin cells, and amniotic fluid. These should not last more than 2 days.



Seeing light yellow stools in breastfed babies is normal. If they are very watery, they may indicate diarrhea and increase the risk of dehydration.



Orange stools may appear due to pigments acquired in the digestive tract and are more common in babies fed with formula.



After the newborn passes the meconium, stools may be mustard yellow. This color is common in breastfed babies.



White stools may indicate that the liver is not producing enough bile to digest food properly. A pediatrician should evaluate white stools at any time.

Stool colors



Babies who are fed formula may have golden-colored stools.



Dark green stools are more common when starting solid foods, such as spinach and/or peas. Iron supplements can also make stools appear green.



Gray stools may indicate that the baby is not digesting food properly. You should consult the pediatrician if the baby has gray or clay-like stools.



If the baby has not eaten red-colored foods recently and you notice red stools, consult the pediatrician. If the baby has eaten red foods, observe whether the stools return to their normal color at the next bowel movement. If they do not change, call the pediatrician.



Bath time

Place the baby where no drafts of air can reach them.

Have everything you need within reach before bathing the baby.

Use warm water, never hot.

Start washing from the head down to the feet.

Rinse the baby with clean water, not with the water used for bathing.

When finished, wrap the baby in a towel and, after drying, put on the diaper and clothing.

Details about the sleep period



They sleep in periods of 2 to 4 hours.

Place your baby on their back to sleep.

Remove any soft objects from the crib, including blankets, stuffed animals, cushions, and pillows, to prevent anything from covering the baby's face and making it difficult to breathe.

When putting the baby to bed, change the position of their head each night. One night place their head to the right, and the next night to the left. This helps prevent one side of the head from flattening.

Types of feeding for babies



During the first 4 to 6 months of life, babies need only breast milk or formula to meet all their nutritional needs.

Recommendations for feeding your baby

Babies should be fed on demand, which may be between 8 and 12 times a day.

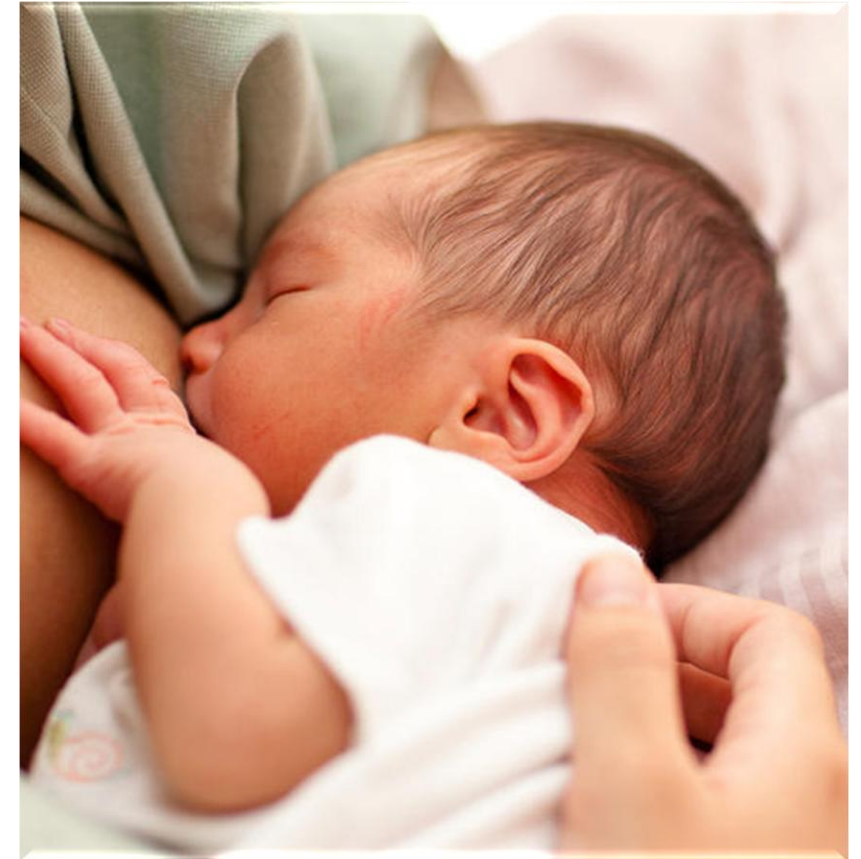
If you use formula, do not overfeed your baby. Follow the pediatrician's instructions.

Support your baby's head so it is higher than their stomach when feeding.

Do not use the microwave to heat milk. Place the bottle in a container with warm water for a few minutes.

If your baby is taking medications, consult your pediatrician to know the appropriate time to administer them.

Prevent infections by keeping the home clean.



Breastfeeding



Breast milk contains beneficial antibodies that help keep babies healthy and protected from infections.

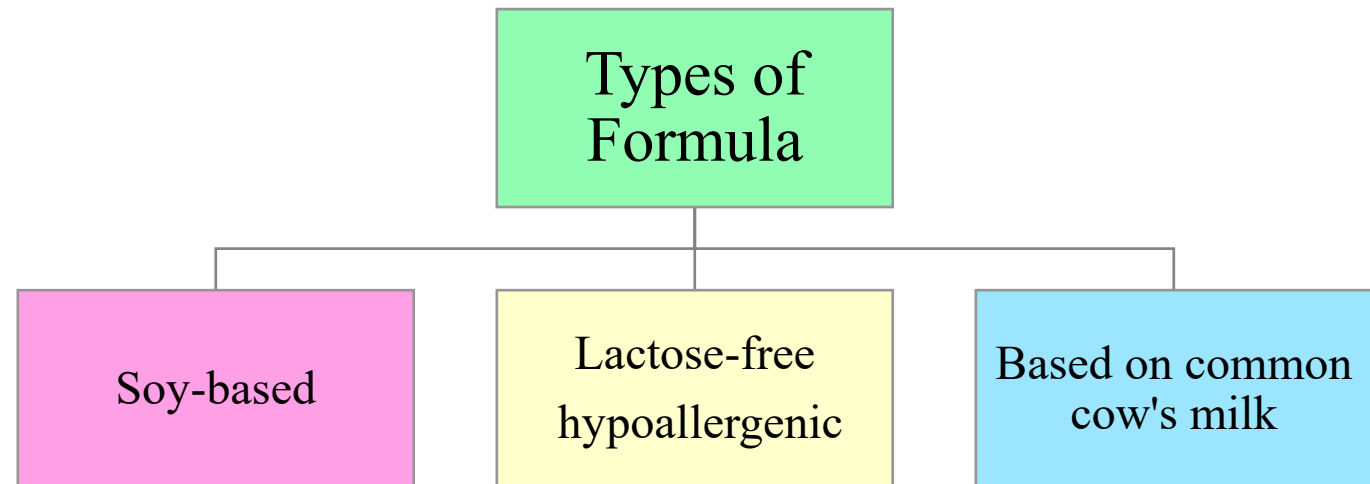
Studies show that breastfeeding supports the baby's physical, cognitive, emotional, and social development.

At 6 months, you may continue breastfeeding and add solid foods when recommended by the pediatrician.

The World Health Organization recommends extending breastfeeding at least until the baby is 2 years old.

Infant formulas

- Formulas are available in different forms, such as powders and concentrated liquids. The best option is to use an iron-fortified formula.
- Consult the pediatrician about which formula to offer your baby.





When to introduce solid foods to your baby?

It is recommended to offer solid foods starting at 6 months of age. Readiness depends on each child and their development.

Your baby should open their mouth when food is brought close.

Your baby should have the ability to sit and keep their head upright.

Recommendations for starting to feed the baby

Soft or puréed foods. Foods should be soft or mashed to prevent choking.

Introduce single-ingredient foods. Offer new foods with one ingredient from any food group every 3 to 5 days. Always watch for the baby's reactions.

Allergy-related evaluations. When your baby is between 4 and 6 months, before introducing foods like eggs, soy, peanuts, or fish, evaluations are recommended to detect sensitivity or allergic reactions.

Include iron and zinc sources. Make sure to include foods that provide iron and zinc, such as baby food made with meat or iron-fortified cereals.

Use baby-specific cereals. If you feed your baby prepared cereals, ensure they are made for infants. These are available in single-serve containers or dry form, to which you can add breast milk, formula, or water.



Build healthy eating habits. Good eating habits should begin in childhood.

Shaken Baby Syndrome

It is a type of brain trauma that occurs when a baby is shaken violently.

The shaking causes the brain to move inside the skull and suffer bruising, swelling, and bleeding, which can lead to severe, permanent brain damage or death.

The characteristic injuries are bleeding inside the brain, in the eyes, and damage to the spinal cord and neck. In addition, there may be rib fractures and other broken bones.

Signs: extreme irritability, lethargy, lack of appetite, breathing problems, seizures, vomiting, and pale or bluish skin. Injuries usually occur in children under 2 years old, but can happen up to 5 years old.



What is the difference between immunization and vaccination?



Immunization is the process through which an immune response is obtained, and the body develops resistance to a specific disease.



One of the ways immunizations occurs is through vaccination. Vaccines are the safest and most effective way to prevent diseases, disabilities, and death.



Weeks after birth, babies have some immune protection. This is transmitted from the mother to the baby through the placenta during pregnancy.



This protection fades; therefore, vaccines will help the baby protect against many diseases.

Recommended vaccines for babies:

DTaP: Tetanus, diphtheria, and whooping cough can be very serious diseases. It is safe for the baby to receive this DTaP vaccine at the same time as other vaccines. Five doses should be given at the following ages: at 2, 4, and 6 months, between 15 and 18 months, and between 4 and 6 years.

- **Polio:** It is a viral disease that can affect the spinal cord, causing muscle weakness, permanent paralysis, and even death. The vaccine prepares the child to fight the virus. Most children who receive all recommended doses of the vaccine will be protected against the virus.

MMR (MMR): Protects against mumps; it is an injection that combines vaccines against three diseases: measles, mumps, and rubella. These diseases spread easily through coughing and sneezing. There is no cure and they can cause long-term health problems.

Recommended vaccines for babies:

Chickenpox: Disease caused by a virus that leads to rash, fever, and can be serious. Some children who have received the vaccine may still get chickenpox, but usually very mildly.

- **Meningococcal (MCV4):** It often strikes without warning, even in people who appear healthy. The vaccine protects against bacterial meningitis. Two doses are recommended: the first between 11 and 12 years old and the second at 16 years old.

Hepatitis: A disease that causes inflammation of the liver. It can lead to liver failure, joint pain, complications in the kidneys, pancreas, blood, and even death. The vaccines protect against hepatitis A and B.

- **Influenza:** A respiratory infection caused by a virus. The vaccine protects against the virus and should be given every year starting at 6 months of age.

Recommended Immunization Schedule for Children and Teens

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

These recommendations must be read with the notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars. To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine and other immunizing agents	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs		
Respiratory syncytial virus (RSV-mAb [Nirsevimab])	1 dose depending on maternal RSV vaccination status (See Notes)					1 dose (8 through 19 months), See Notes													
Hepatitis B (HepB)	1st dose	← 2nd dose →			← 3rd dose →														
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)			1st dose	2nd dose	See Notes														
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)			1st dose	2nd dose	3rd dose				← 4th dose →			5th dose							
Haemophilus influenzae type b (Hib)			1st dose	2nd dose	See Notes		← 3rd or 4th dose (See Notes) →												
Pneumococcal conjugate (PCV15, PCV20)			1st dose	2nd dose	3rd dose		← 4th dose →												
Inactivated poliovirus (IPV)			1st dose	2nd dose	← 3rd dose →							4th dose					See Notes		
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)					1 or more doses of 2024–2025 vaccine (See Notes)														
Influenza (IIV3, cclIV3)					1 or 2 doses annually										1 dose annually				
Influenza (LAIV3)											1 or 2 doses annually		1 dose annually						
Measles, mumps, rubella (MMR)					See Notes	← 1st dose →						2nd dose							
Varicella (VAR)							← 1st dose →						2nd dose						
Hepatitis A (HepA)					See Notes	2-dose series (See Notes)													
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)														1 dose					
Human papillomavirus (HPV)														See Notes					
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2years)		See Notes														1st dose		2nd dose	
Meningococcal B (MenB-4C, MenB-FHbp)														See Notes					
Respiratory syncytial virus vaccine (RSV [Abrysvo])														Seasonal administration during pregnancy (See Notes)					
Dengue (DEN4CYD: 9–16 yrs)														Seropositive in endemic dengue areas (See Notes)					
Mpox																			



Questions or Comments

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Available Service Lines

Medical Advice Line

Available 24 hours a day

7 days a week

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TTY/TDD 1-844-347-7804

Customer Service Line

1-844-347-7800

TTY/TDD 1-844-347-7805

Monday to Friday 8:00 a.m. – 5:00 p.m.

APS Health 787-641-9133

TTY 787-641-2772



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