



Newborn Survival Guide

A comprehensive guide by pediatricians (they're moms too!) that answers the popular newborn questions from new parents

baby
playbook

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Welcome to parenthood.

Congratulations on your new bundle of joy!

Whether you are anxiously awaiting their arrival or recently brought them home, I hope that this guide provides some peace of mind for you.

As a pediatrician and father, I know that the newborn stage can be overwhelming. Those first few months are full of learning all kinds of new things and adjusting to life with a new baby. Be prepared: as soon as you get the hang of one stage, it feels like a new milestone appears and brings a whole new set of skills to learn.

We specifically chose these topics to share with parents because they are the topics that pediatricians spend the most time discussing. These are 5 of 70+ written guides that are available inside the Baby Playbook and ParentMD memberships.

My two boys are grown now, but it feels like just yesterday that I was in your shoes. Please know that you are on a wonderful (sometimes challenging) journey of parenthood. If you are looking for more information like this that is simple to find and trusted, check out www.ParentMD.com.

Don't blink. It goes fast!



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This guide is not intended to provide diagnosis, treatment, or medical advice. Any information provided in this guide is provided for informational purposes only and you should not use the information in this guide to diagnose or treat any health issues. Always seek the advice of your pediatrician or other qualified health care provider regarding any medical or health related questions and decisions and never disregard professional medical advice or delay in seeking it because of something you have read in this guide.



Newborn Sleep Patterns

Written by: Jenny Segeleon, MD, FAAP

How much sleep does my newborn need?

Trying to figure out newborn sleep patterns can be frustrating, even for seasoned parents. Lack of sleep is unavoidable and one of the toughest challenges for new parents, at least for the first few months. There is no such thing as sleep training a newborn. However, you can create a positive sleep environment and set realistic expectations for both of you.

Most newborns require 16 to 19 hours of sleep a day. This will decrease to 14 to 16 hours a day by one month in most babies. Babies will not follow a set sleep routine or pattern for the first few months. Therefore, parents must listen to and adjust to their baby's needs every step of the way when it comes to sleep. Sleep is one of the most important things for all of us, and it starts in the newborn period.

Often, newborns come into this world with their days and nights confused. For several months, they've drifted off in utero during the day as Mom walks around and rocks them to sleep. They become more active at night when Mom is still and quiet. This pattern carries over once they are born. It's no wonder a baby's sleep pattern may be unpredictable, which can be frustrating to sleep-deprived new parents! Just remember, it gets better! Typically, you can start to expect a consistent sleep pattern by four to six months of age.

Newborns have tiny stomachs and must eat every 2 to 4 hours for the first several months of life, including through the night. This critical period of rapid growth requires your baby to eat often. You must wake your baby every three to four hours to feed until your baby reaches a weight over the birth weight. After reaching birth weight or more, it's okay if your baby sleeps longer.

Pay attention to your baby's sleep pattern. If your newborn sleeps too much, it could indicate something more serious or be a sign of illness.

How to create a good sleep routine

- Always place babies on their backs to sleep.
- Place babies in a crib or bassinet when sleepy but not completely asleep. Avoid rocking or feeding your baby to sleep. You do not want them to associate falling asleep with a stimulus like rocking or feeding. They need to be able to self-soothe and put themselves to sleep. This is key to establishing a good routine.
- Swaddle your baby; in other words, wrap your baby snugly so that arms and legs remain still and your baby won't startle themselves awake. Always use a light blanket to swaddle and allow enough room for legs to bend at the hips. Stop swaddling once your baby can roll over.
- Watch for signs of sleep readiness, including yawning, rubbing eyes, and fussiness.
- Stay ahead of your baby's fussiness and crying phase. Find the window of opportunity to initiate sleep to avoid your baby becoming overtired or overstimulated.

Be patient when it comes to sleep and sleep routines. Most babies will fall into a good pattern by 4 to 6 months of age. Start working on a day and night routine around four months. The first stretch of the night will be the longest sleep period and should get longer as your baby gets older.

By four months, your baby should take two to three good naps a day. Newborns will have very short sleep cycles, but the cycles get longer quickly. Watch your baby's sleep cues and leverage them to establish a good healthy routine.

You can start true sleep training close to six months of age if your baby still has not fallen into a predictable pattern. Place your baby in their crib, sleepy but not asleep, around the same time every day. By six months of age, most babies should be down to two solid, predictable naps and should be sleeping close to six to eight hours at night. By one year of age, you should expect a full ten to twelve hours of sleep every night!

Sources: www.aap.org; www.HealthyChildren.org





Feeding Your Infant

Written by: Jenny Segeleon, MD, FAAP

One of your first important decisions as a new parent is what to feed your precious new bundle of love. You have two choices for the first six months of life, breast milk or formula. Either option can be suitable for you and your baby. Both give babies everything they need to grow and develop properly. The American Academy of Pediatrics (AAP) recommends breast milk exclusively for the first six months. Although breast milk is ideal, it may not work for everyone. Do not feel guilty if breastfeeding is not the right choice for you, whatever the reason. Be confident knowing you made the best decision for your new family.

Breastmilk

Breast milk provides babies with all the nutrition they need to grow. While they only need breast milk for the first six months of life, babies can continue to drink breast milk until one year of age or older. Your baby will not need solid foods for at least six months. Don't be fooled by myths that claim feeding solids early will help your baby sleep. It is simply not true! Babies digest solid foods better as they get older.

Breast milk is full of proteins, fats, carbohydrates, vitamins, and minerals. It also contains antibodies from the mother that help protect babies from infections. These antibodies are exclusive to breast milk. The colostrum, which is the first milk, is full of antibodies and good nutrition. More dense and yellow, it is produced in the first few days after the baby's birth. Some moms will syringe feed their baby colostrum to ensure the baby gets every last drop of this essential first nutrition. If you plan to breastfeed, doctors, nurses, and lactation consultants can

help you and set you up for success! Don't hesitate to ask for help and guidance.

Breastfeeding can be a stressful process at first, and many give up. Be patient and understand it is a learning process for you and your baby when it comes to latching, holding, sucking, and swallowing the right way.

Most breastfed babies need to feed every one to three hours. Therefore, you can expect eight to ten feedings in a 24-hour period during the first month. If your baby tries to sleep over four hours, wake your baby to eat. Your baby can guide you on how much and how often it's necessary to feed. Watch for cues and feed on demand for the first two to four weeks of life. Almost all babies will lose weight during the first few days of life. This weight loss is normal, but your baby should gain enough weight to be back to birth weight by two weeks old. Your pediatrician will closely monitor your baby's weight, so be sure to attend all of your baby's doctor's appointments.

By two months, your baby should start to spread out daytime feedings to about every three hours. You may get lucky and start getting a four-hour stretch at night. Usually, by four to six months, babies will be able to sleep up to six hours at night. Do not try to force a schedule early on, as there will be no rhyme or reason to your baby's routine at first. Just be patient and go with the flow. A predictable pattern will soon follow, but rushing this natural process often leads to disappointment.

Many benefits exist for mom and baby when you choose to breastfeed.

For mom:

- Decrease in breast and ovarian cancer
- Decrease in Type 2 diabetes
- Decrease in high blood pressure

For baby:

- Decrease in asthma
- Decrease in obesity
- Decrease in Type 2 diabetes
- Decrease in common respiratory diseases
- Decrease in acute otitis media (ear infections)
- Decrease in Sudden Infant Death Syndrome (SIDS)
- Decrease in vomiting and diarrhea illnesses

Some moms prefer to pump breast milk exclusively or pump when they need a break and want someone else to feed their baby. To be safe, pay attention to storage rules and guidelines for pumped breast milk.

Fresh pumped milk can be left:

- On the counter for up to four hours
- In the fridge for up to four days
- In the freezer for four to six months

Frozen or Thawed breastmilk can be left:

- On the counter for one to two hours
- In the fridge for one day
- Never re-freeze breast milk

*Always use or discard milk within two hours if your baby doesn't finish a bottle.

Formula Feeding

Some of the same rules apply to both breastfed and formula-fed babies. Formula-fed babies also need to eat on demand during the first month of life. Generally speaking, they will take one to two ounces of formula the first few weeks and gradually increase the volume to four to six ounces a feeding by six months. Regarding how much to feed at a time, all babies are different, and parents should read their hunger cues. Watch for signs like rooting and fussiness. Always start with lower volumes and increase as you feel the need or when your baby does not appear satisfied. When babies spit up large volumes after feeding, it's a sign they may have taken in too much. Remember, babies have tiny stomachs that can only hold so much. Overfeeding also can lead to overweight children.



Types of Formula

- Cow's milk formula is a regular formula made from cow's milk proteins. Cow's milk formula is most similar to breast milk.
- Soy-based formula is made from soy protein. Soy-based formulas often are used in cases of mild allergy or diarrhea.
- Hypoallergenic formulas are made from broken-down proteins that are easy to digest. These formulas are most often used for true milk protein allergies.
- Sensitive formulas include partially broken-down proteins for easier digestion.
- AR formulas include added rice or starch for babies prone to spitting up.
- You can find formulas in both Ready-to-Feed and powder forms in the store.
- Always choose an FDA-approved formula.
- Always ask your doctor before changing formulas!

How to prepare and store formula

Once you have decided on the best formula option for your baby, follow these general rules for preparing and storing the milk:

- Always prepare formula with clean hands and bottles
- Wash all of the bottle pieces in the dishwasher or a sink with hot soapy water
- Always cover the formula container with the appropriate lid once opened
- Keep formula at room temperature
- Check the "use by" date and discard any expired formula
- In most communities, room temperature tap water is perfectly fine for your baby
- Do not use well water. If this is the only option, use sterile nursery water
- Mix formula precisely as directed on the can - never guess
- Never use a microwave to heat milk. Room temperature is best
- Never freeze formula
- Discard any formula leftover after feeding
- Discard formula after 24 hours in the refrigerator
- Discard any formula that's been sitting out for two hours or more

Sources: www.aap.org; www.CDC.gov;
www.stanfordchildrens.org



Wet Diapers and Baby Poop

Written by: Jenny Segeleon, MD, FAAP

As a new parent, you will be amazed at how much time you spend discussing, inspecting, and analyzing your new baby's diapers. When was the last time they went? What did it look like? What did it smell like? The questions regarding wet and dirty diapers are endless.

Urine Output/Wet Diapers

Babies should have their first wet diaper within 24 hours of birth. As long as they are well-hydrated with breast milk or formula, babies should wet a diaper at least every six hours. Some babies will produce urine every two to three hours. The urine should be light to darker yellow. If your baby boy is circumcised after birth, your doctor will likely wait until he makes more urine after his procedure before you can leave the hospital.

Parents may notice a pink or brick-red dusty color in the diaper during the first week of life. This is a sign of more concentrated urine and mild dehydration. It is normal and will self-resolve as your baby becomes more hydrated with more frequent feedings. Parents often will mistake this for blood. If you are concerned, ask your pediatrician. It is always good and acceptable to bring a sample diaper to your appointment.

Baby girls may have a small amount of blood-tinged mucous in their diapers during the first

few weeks of life. This is a vaginal discharge caused by maternal hormones that crossed over from the mother after birth. This also is normal and should resolve without any treatment.

If you see anything that looks like blood after the first two weeks of life, consult your pediatrician. It could be a sign of infection or other serious condition.

Baby Poop

Many shades of normal exist when it comes to baby poop. Baby poop comes in various colors, frequencies, and consistencies, depending on whether you are feeding your baby formula or breast milk. All babies can appear to struggle to have a bowel movement early on in life. They may grunt and groan and turn red in the face when they are trying to poop. This is normal as long as the poop is soft when it comes out. Babies have an immature connection between their gut and brain. The communication between the gut and brain will improve with time, and they won't struggle as much as they get older.

Formula-fed babies typically have a bowel movement one or two times a day. The stools of formula-fed babies resemble a peanut butter consistency. Some will go every other day. This can be normal as long as the stool is still soft.

Breastfed babies, in general, will have a bowel movement two to five times a day. Early on, they may stool a small amount after every feeding. The early milk, called colostrum, can act like a baby laxative, resulting in frequent stools. However, bowel movements can slow down dramatically after the first month to as little as once every five or seven days. While this may seem unusual, when breastfed, your baby will begin to utilize and absorb all of the breast milk, leaving very little left over for waste. A wide range of what is considered normal exists in breastfed babies.

A Color Guide to Poop

Normal Poop

Black – The first few stools are called meconium. Meconium is the waste formed in utero from amniotic fluid, skin cells, and mucous. This stool will be sticky and tar-like, but it only lasts for the first few days.

Yellow/green/light brown --

Transitional stool. It is less sticky and has a consistency similar to brownie batter.

Yellow/tan/green – Formula-fed stools are more firm and pastier, like peanut butter, and have more odor than breast milk stool.

Yellow – Yellow is a typical hue for breast milk stools. It may resemble mustard with little seeds throughout. It has a sweeter odor and is a loose consistency, more like loose pudding or melted soft-serve ice cream. If breast milk stool appears greenish, it could be lacking the fat which is found in the hind milk. Nursing mothers should be sure to empty their breasts completely to avoid green stools.

Abnormal Poop (when to call your doctor)

Black – If your baby's stool is still black after the first week of life, it could indicate the presence of old blood and could be a serious problem.

Red – Red stool also could be from blood or infection. Flecks of bright red blood in the stool could indicate a milk protein allergy. Your pediatrician can test for blood in the office if you bring in a stool sample.

White/Pale – White or pale stool is not normal and could be caused by the liver not producing enough bile that is needed to digest food.



Constipation in Babies *under 12 months of age*

Written by: Erica Bailen, MD, FAAP

Constipation in a child under 12 months of age can present in various ways and occur for a number of reasons. It can involve excessive pain, crying and straining while passing a bowel movement, and skipping multiple days between dirty diapers.

Constipation can be related to a change in diet such as a decrease in breast milk and an increase in formula intake, the introduction of solids, or when changing from formula/breast milk to cow's milk. Sometimes constipation seems to happen for no reason at all. It can present as an extra-large stool that is hard for your baby to pass or even tiny hard balls. It is normal for babies to strain to a mild degree while pooping if they are laying on their backs rather than sitting up.

In general, breast-fed babies poop more often than formula-fed babies. Breast-fed babies commonly poop every time you feed them, whereas formula-fed babies may poop 1-2 times a day or even skip a day or two between bowel movements. The latter is not a concern as long as the stool is soft and relatively easy to pass, the child is not in a lot of pain, their belly is soft, they are eating well, making regular wet diapers, not vomiting, and there is no blood in the stool. When the issue of constipation does become problematic, demonstrated by skipping multiple days, excessive crying while trying to poop, or hard/large stools causing tears in the perianal skin resulting in blood in the stool, it's time to try some corrective measures:

1. Lay your baby on their back and bicycle their legs several times a day. It can be naturally tricky for some babies to poop while laying flat on their back. You can assist them by rolling them to their side, pressing their knees into their chest (hold for a few seconds), stretching their legs out, and repeating. This helps mimic the squatting position. Massaging your baby's belly while they lay on their back can also help. Massage in a circular clockwise upside down v-shaped pattern (clockwise for you when standing over your baby and facing them with them looking up at you).
2. A lukewarm bath can help with an upset tummy.
3. Try some gas drops such as Mylicon (also called Simethicone or Little Tummies) or Gripe Water. Follow package directions.
4. Infant probiotics can be helpful in restoring potentially disrupted gut flora. A few store brands and online choices for infants and babies include: Ultimate Flora Baby by Renew Life, Klaire Infant Probiotic, Bio Gaia Protectis Baby, Culturelle Baby Grow + Thrive, Mommy's Bliss Infant Probiotic, Gerber Soothe Probiotic Drops, and MaryRuth's Infant Probiotic.
5. You may need to perform rectal stimulation with the tip of a thermometer. Lubricate the tip of an infant rectal thermometer with coconut oil or lubricating jelly, carefully insert it into your baby's bottom about a 1/4 inch deep, and gently it move side to side.
6. For babies over the age of 2 months, it is ok to give them 1 ounce of undiluted prune or pear juice daily.
7. For babies over 4 months of age, try giving pureed foods with high fiber content such as cereals, mashed beans, or fruits containing the "letter P" in their names, such as aPricots, Prunes, Peaches, Pears, Plums, or aPPles.
8. If constipation occurs after introducing foods containing dairy such as ice cream, yogurt, or cheese - consider changing to dairy-free versions of these foods made with coconut milk or almond milk (assuming your child does not have a nut/coconut allergy).
9. On occasion, a glycerin suppository may be needed if your child is in a great deal of pain related to constipation. Talk to your pediatrician if you have questions about suppositories or enemas.

When to Call Your Pediatrician:

Give your child's doctor a call or schedule an office visit if

- your baby has not passed a bowel movement for more than 4-5 days
- your baby is not feeding well
- they are vomiting
- their abdomen feels hard/distended
- your child is inconsolable despite the above recommendations
- or if new/worsening concerns arise.

If you notice any drastic changes in your baby's stool frequency or consistency, notify your pediatrician. Your baby might be dehydrated or have issues with constipation.

Source: www.aap.org



Fever

Written by: Amy Harrison and Erica Bailen, MD, FAAP

What is a Fever?

A fever is an increase in your baby's body temperature. Fevers are a symptom of something else happening in the body, not the illness itself. A fever is the body's natural way to signal and help fight off infection. You can expect fevers in children and adults of all ages and, in most cases, they are not harmful. However, fevers in newborns should be taken seriously and monitored with the help of your pediatrician.

Everyone's base body temperature varies throughout the day and with activities such as exercise. Parents may notice their baby's temperature being slightly lower in the morning and a little higher in the afternoon or on a warm day. Body temperatures also may rise slightly while we sleep. While a somewhat raised body temperature usually presents no cause for concern, please **call your pediatrician immediately if your baby is one to three months old and has a rectal temperature of 100.4 degrees Fahrenheit or higher. Children under one month of age with a rectal temperature of 100.4 degrees Fahrenheit or greater should be seen in the emergency room as soon as possible.**

Any number of factors can cause fevers:

- Illness -- Bacterial and viral infections such as colds, respiratory diseases, ear infections, and stomach bugs can cause infant fevers. More severe conditions, like meningitis, also can present with a fever.

- Overdressing -- Newborns may get a fever if they are over-bundled or in an environment that is too warm for them to regulate their body temperature appropriately. Most newborns only need one extra layer more than an adult would need to be comfortable.
- Immunizations -- Sometimes, babies can develop a fever after receiving vaccinations as their body begins building an immune system.

Fortunately, fevers are temporary and usually go down once the underlying illness or issue has resolved.

How to Take a Newborn's Temperature

A digital rectal thermometer is the most accurate way of taking a temperature in babies. Many brands make rectal thermometers with very short probes to ensure you're using them correctly and not inserting the probe too far into the rectum. Do not use glass or mercury thermometers; they may break and cause injury to your child.

To take a rectal temperature on your newborn:

1. Turn on the digital thermometer and cover the tip of the thermometer with petroleum jelly (Vaseline).
2. Lay your baby on their back, lift the legs gently towards the ears, and carefully insert the lubricated thermometer 1/2 to 1 inch (1.3 to 2.5 centimeters) into the rectum.
3. Alternatively, you can try placing your child on their belly on your lap or another firm surface, keeping your hand gently against their lower back to hold the baby in place.
4. Never try to force a rectal thermometer past any resistance.
5. Hold the thermometer until it beeps or signals that it's done.
6. Remove the thermometer and read the number.

Call Your Pediatrician Right Away if:

- Your baby is one to three months of age with a temperature of 100.4 degrees or higher.
- You notice any signs of dehydration, including fewer wet diapers, baby not wanting to feed, baby's mouth is dry, or a sunken or bulging soft spot on top of the baby's head.
- You notice additional severe symptoms, such as a rash, vomiting, or diarrhea.
- Your parent's intuition says something is not right. You know your baby best, and your pediatrician will want you to call if you think there is something wrong!
- Remember: Children under one month old with a rectal temperature of 100.4 degrees Fahrenheit should be seen in the emergency room as soon as possible.

Call 911 if:

- Your baby has trouble breathing, is breathing too fast, or is wheezing.
- You notice blood in the urine, stool or phlegm, or ears.
- Your baby's lips, tongue, or nails are blue.
- Your baby is limp, unresponsive, or difficult to wake.

What to do When Your Baby has a Fever:

There are a few things you can do at home to make your baby more comfortable:

- Dress your baby in lightweight clothing.
- Make sure the bedroom or where your baby spends time in the home is at a comfortable temperature, ideally between 68-72 degrees.
- Offer plenty of feedings to make sure your baby stays hydrated with either breastmilk or formula. Avoid formula for babies who still have an attached umbilical cord.
- Give your baby a gentle bath in lukewarm water (not hot or cold).

Ask your pediatrician for advice on any fever-reducing medication, and always pay attention to the dosing instructions based on your baby's weight. Your doctor may recommend an infant concentration of acetaminophen (Tylenol). Keep in mind that ibuprofen (Advil or Motrin) is not recommended for babies younger than six months.





Looking for more?

Check out the Baby Playbook for more new parent resources to care for your baby!