



North Austin
Pediatrics, P.A.

NEWBORN BOOKLET

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Kristen Pickering, M.D., F.A.A.P.

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NEWBORN AND CHILD CARE

North Austin Pediatrics, P.A.

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Board Certified, American Board of Pediatrics
Fellow, American Academy of Pediatric

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ABOUT OUR PRACTICE

We've been providing care in the North Austin and Cedar Park communities for over 20 years. Our founding provider, Leighton Ellis, M.D., and team of highly-qualified pediatricians look forward to expanding our model of care to the Leander area. It is our intention to be partners with you in your child's wellness; a partnership in which our providers take the time to understand and administer to your child's needs and ensure your family has the tools and education necessary for a lifetime of health and wellbeing. All of our locations see children at all stages of their growth, from newborn to college-bound! We look forward to meeting you all and working together for a lifetime of wellness for your child.

Leighton E. Ellis, M.D.

Dr. Ellis was born in New York City but raised in São Paulo, Brazil until the age of fourteen when her family moved to the States to further her schooling. She attended Florida Atlantic University in Boca Raton, FL and went on to complete medical school at the University of South Florida College of Medicine in Tampa. Today, Dr. Ellis has been practicing medicine in Austin for over 20 years and is the Chair of Pediatrics at St. David's North Campus Hospital. Additionally, she is the past president of the Central Texas Pediatric Physicians Alliance and has been continuously nominated one of the best doctors in Austin. She and her husband, Ken, have two sons, Kenny and Michael; they enjoy traveling, snorkeling, and cooking as a family. Dr. Ellis is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics, and she is fluent in Portuguese and Spanish.

Erica C. Sharp, M.D.

Erica Sharp was born in Kingston, Jamaica and spent her early years living between the United States, England, and her native country. She received her Bachelor of Science degree in Psychology from Tulane University in New Orleans, Louisiana in 1992. After traveling in Central America, she returned to New Orleans to attend the Tulane School of Medicine from which she graduated in 1997. She subsequently completed her pediatric residency training at the University of Maryland in Baltimore before heading to Austin, Texas. Dr. Sharp has been practicing here since 2000, and joined North Austin Pediatrics, P.A. in the summer of 2004. Dr. Sharp is married to her husband, Ryan. They have a daughter, Sarah. Dr. Sharp is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics.

Rebekah E. Sperling, M.D.

Rebekah Sperling was born in Baltimore, Maryland and moved to Hewitt, Texas with her family at 12-years old. She attended the University of Dallas where she received her Bachelor of Art degree in Biology in 2000. During her junior-year summer, Dr. Sperling explored Costa Rica while studying Spanish. After graduation, she attended medical school at the University of Texas Health Science Center at San Antonio. While in school, she took six weeks to go on a medical mission in Uganda. She worked with and treated the Bwindi pygmy people, educating and treating her patients for malnutrition, tropical diseases, and H.I.V. The African continent is still dear to her. Upon her graduation in 2004, Dr. Sperling moved to Providence, Rhode Island to complete her pediatric residency at Hasbro Children's Hospital an affiliate of Brown University. She is happy to have returned to Texas to begin practicing pediatrics. Dr. Sperling is married to her husband, Chris. The two have a daughter named Elizabeth Rose, and two golden retrievers. Dr. Sperling is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics.

Christine Q. Lam, D.O.

Christine Lam was born and raised in Houston, Texas and attended the University of Texas at Austin where she received her Bachelor of Arts degree in English and Biology in 2003. She graduated from the University of North Texas Health Science Center – Texas College of Osteopathic Medicine in Fort Worth in 2007 and completed her pediatric residency training at the University of Texas Medical Branch in Galveston in 2010. In her free time, Dr. Lam enjoys traveling, cooking, and spending time with her husband, Jonathan (an Aggie of all things) and their two Welsh corgis, Rito and Roscoe. Dr. Lam is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics.

Kristen K. Pickering, M.D.

Kristen Pickering was born and raised in Houston, Texas. In 2008, she graduated from Texas A&M University where she received her Bachelor of Science degree in Genetics & Chemistry. In her college years, she worked as a tutor in math and algebra and spent multiple summers as a counselor at Camp Independence, a week-long retreat for children with Type I Diabetes in San Antonio, Texas. After college, she attended medical school at the University of Texas Medical Branch in Galveston from which she graduated in 2012. In 2015, she completed her pediatric residency training here in Austin at Dell Children's Medical Center at the University of Texas Dell Medical School. During her residency, she was involved in the Texas Pediatric Society as Resident Chair for the committees on Early Childhood Development and Childhood Obesity. In addition to quality primary care, Dr. Pickering has special interests in childhood growth and development. In Dr. Pickering's time away from the office, she enjoys exploring Austin's parks and trails with her husband, Kyle, an engineer. Dr. Pickering is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics.

Chelsea N. Johnson, M.D.

Chelsea Johnson was born at Bethesda Naval Hospital while her dad was stationed in Maryland as a navy pilot before moving to Keller, TX where she began springboard and platform diving. She was fortunate enough to represent the USA at Junior World Championships and continue diving as a Division I athlete for Purdue University. She developed a passion for medicine while in college and graduated with a Bachelor of Science degree in Health Science. She proceeded to the University of Texas Medical School at Houston followed by a pediatric residency at Yale University. During residency, she volunteered in the Yale Pediatric Refugee Clinic through which she made several international trips to hospitals in Brazil and Tanzania. Her passions are global health and newborn medicine. Chelsea looks forward to life in Austin with her husband, Ian Patterson, who is also a pediatrician. The two have a cat, Rafiki (Swahili for friend)—named after experiencing the beautiful language and people of Tanzania). Outside of medicine, Chelsea and her husband enjoy being active and outdoors. They support division rivals, Houston Texans and Indianapolis Colts; therefore, they expect to have marital hardship twice a year. Dr. Johnson is certified by the American Board of Pediatrics.

Rebecca Baine, M.D.

Rebecca Baine was born in Austin and was raised in north Houston. She graduated cum laude from the University of Texas in 2011 with a Bachelor of Science degree in Biology and Neuroscience. During college Dr. Baine journeyed to the Dominican Republic on a medical mission trip where her passion for healing was cemented. Dr. Baine went on to attend medical school at the University of Texas Medical Branch (UTMB) where she focused her studies on childhood preventative care. Upon completing her studies at UTMB, Dr. Baine returned to her adopted hometown of Austin to join the pediatrics residency program at Dell Children's Medical Center at the University of Texas Dell Medical Center. While in residency Dell Children's Medical Center awarded Dr. Baine the Karen Teal Award to recognize her commitment to compassionate care. Dr. Baine joined North Austin Pediatrics in 2018 and is an active member of the Travis County Medical Society and the American Academy of Pediatrics. Dr. Baine enjoys traveling the world, exploring Austin, and learning to cook gourmet meals. She sees patients in our Austin and Cedar Park offices.

Ian Patterson, MD

Dr. Patterson is originally from Southern Indiana and completed his undergraduate degree at Purdue University where he met his wife, Dr. Johnson. Upon graduation, he attended medical school at the University of Texas Medical School at Houston and completed his residency at Yale- New Haven Hospital in Connecticut. In his free time, Dr. Patterson enjoys hiking, running, and traveling with his wife. He is also fluent in Spanish. He is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics. He sees patients in our Cedar Park and Leander offices. In his free time, Dr. Patterson enjoys hiking, running, and traveling with his wife. He is also fluent in Spanish. He is certified by the American Board of Pediatrics and is a Fellow of the American Academy of Pediatrics. He sees patients in our Cedar Park and Leander offices.

HELPFUL HINTS TO MAKE YOUR VISIT GO MORE SMOOTHLY

Bring your child’s immunization record and insurance card to all visits. Also, any records from other physicians, medications, or addresses that we may need would be appreciated.

Bring plenty of bottles and diapers, as some visits, especially well-child visits, may be lengthy. We will make every attempt to be on time, but expect a 15 to 45 minute wait if you are being worked in or if there has been a need to accommodate another sick child. If you will be having someone else bring your child to the office, we require a signed note from the parent or guardian. We highly discourage this for well visits.

Please notify us of cancellations 24 hours in advance. There is a \$50 charge for a missed appointment.

OFFICE HOURS

Monday - Friday 8:00 a.m. - 5:00 p.m. | | Saturday 8:00 a.m. - 11:00 a.m.
Sunday and Holidays by arrangement with on call doctor
Closed for lunch 12:00 p.m. - 1:00 p.m.
Phone Hours: Monday through Friday 7:45 a.m. - 4:30 p.m.

North Austin Office

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12201 Renfert Way, Suite 110
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Phone: 512-259-0900
Fax: 855-727-1552

After Hours call:

“MedLink”
512-660-5396

Leander Office

709 South Badad Road
Leander, TX 78641
Phone: 512-260-0101
Fax: 855-862-9297

GENERAL TIPS FOR PHONE CALLS

Appointments: If you know that you want to schedule an appointment, please do so. You don’t have to speak with a nurse first, and waiting for a return call might cause you to miss the earliest appointment time available.

Routine questions: For routine questions, please call during office hours. Our nurses return phone calls as soon as possible between patients. If you prefer to speak to your doctor or nurse practitioner, please ask. However, this might delay the return call until lunchtime or after 5 p.m.

Office Hours: Monday-Friday 8:00 a.m. - 5:00 p.m.
Phone Hours: 7:45 a.m.-4:30 p.m.

Medical apps and nurse lines: We recommend the KidsDoc phone app by HealthyChildren.org as a symptom checker and advice app for parents. We also have this symptom checker on our website as well. Also, your medical insurance plan payer usually always as nurse advice lines that are provided with your policy and calls are usually free of charge thru your insurance payer's nurse lines.

Urgent questions after-hours: Call MedLink at 512-660-5396.

Important: after talking to MedLink, press *87 to deactivate call blocking to receive the doctor's call. There is a physician available 24 hours a day, 7 days a week for after-hours emergencies. There are also nurses available at the Triage 4 Pediatrics for questions that can't wait until the next business day. You will be billed a \$35.00 fee for after-hours physician calls and \$25.00 fee for after-hours nurse calls. Most insurance companies do not cover these charges, but the billing department can provide you with an itemized statement of charges if you would like to file your own claim. Some insurance companies have a nurse help line. The number is on your insurance card. These nurses use the same triage protocol as the Triage 4 Pediatrics and are an acceptable free alternative.

Life-threatening emergencies: When moments count, call 911.

Poisoning or overdose: Call the Poison Control Center first at 1-800-222-1222, then call your physician.

Before you call: Please take your child's temperature if calling for advice regarding an illness. If your child is less than 12 weeks old, please take the temperature rectally.

Return calls: If your child is sick, we will try our best to return your call within the hour. If you have a general child care question, we will return your call by the end of the day. Should we fail to return your call within a reasonable amount of time, please call us again as a safeguard against telephone trouble, wrong numbers, and human error.

Please stay by your phone after you call for advice. If you miss the nurse's return call, please call back as soon as possible. She will return your call as soon as she returns the other calls that were waiting. If you must leave, please call and let us know when you will return or leave an alternate number. Keep a pencil and paper as well as your pharmacy phone number handy in case we need to give instructions or call out a prescription.

Prescription refills: Please call your pharmacy rather than our office for refills. Your pharmacy will fax a refill request to our office even if your prescription states "no refills available." This allows your provider to review your child's medical record and refill prescriptions quickly and efficiently. Please allow 24-48 hours.

FEEDING YOUR NEWBORN

BREASTFEEDING

Breast Care: Always wear a supportive bra, even at night. To protect your baby from infections, wash or sanitize your hands immediately before breastfeeding; your breasts and nipples do not need any special disinfection other than your usual daily shower or bath with plain water. Don't use soap—it's too drying. To prevent sore, cracked nipples, rub a few drops of breast milk on your nipples and areola after each feeding and allow them to air-dry completely before replacing your bra and nursing pads.

Latching On: With your fingers under your breast and your thumb resting on top (the "C" hold), gently compress the breast behind the nipple and areola (to make it more "bite-sized"); then stroke your baby's lower lip with your nipple. He will open his mouth and turn his head toward the nipple; this is called the "rooting reflex." When his mouth is wide open, guide the nipple and a large portion of the surrounding areola quickly into his mouth. If your infant has difficulty grasping your nipple to feed, try rolling the nipple with your finger and thumb to get the nipple more erect. Check to see that his upper and lower lips are flared outward (not inverted) on the areola. If he doesn't latch on properly, take the baby off the breast by inserting your little finger into the corner of his mouth to release the seal. Then try again until you achieve a proper latch. A proper latch helps the milk flow properly and stimulates a good milk supply; it also prevents complications like sore nipples, breast engorgement and breast infections (mastitis).

What to expect: For the first 2-3 days, your breasts will produce colostrum which is rich in protein and protective antibodies. Around the third day, the breast milk volume and fat content will increase. This is often referred to as "your milk coming in."

Engorgement: When your milk "comes in," your breasts might feel very full and hard. If the fullness is excessive and uncomfortable, it is called "engorgement." Frequent feedings (every 2 to 3 hours) can help prevent and relieve engorgement. Cold compresses after feedings can also help relieve engorgement. Don't be discouraged! Engorgement is a temporary problem.

Nipple tenderness: Nipple tenderness or pain is also common during the first 3-5 days of breastfeeding. This pain is felt when the baby initially latches onto the breast and takes the first few sucks. You can apply pure lanolin cream, such as Lansinoh, directly to tender nipples after feedings. An improper latch can also contribute to nipple tenderness. If the pain is severe or prolonged, we recommend that you consult a lactation consultant for help.

Feedings: When you begin nursing, allow the baby to nurse both breasts, alternating the breast that you start with. After your milk supply is well established, around 7-10 days, you might find that your infant is satisfied to nurse on only one breast during each feeding; however, it's better to nurse both breasts at every feeding. It is important to nurse at least 15 minutes on each breast: this time frame allows your baby to get the foremilk, which has water and nutrients, and the hindmilk, which has more fat and calories to satisfy your baby's appetite.

Feed on demand: Most infants are happy to nurse every 2-4 hours. Supplementation with formula is discouraged unless there is a medical need. After feedings are well established and your baby has regained his birth weight, you may allow your baby to sleep as long as possible between feedings at night unless your pediatrician states otherwise.

Milk supply: The hormone that regulates milk production is stimulated by breastfeeding. The more often you breastfeed and empty your breasts, the more milk you will produce. Notice that it's the frequency (how often you feed) and not the duration (how long you nurse on each breast) that counts. Be sure that your baby does not "snack" frequently (every hour or "constantly") or use your breast as a pacifier, as this will interfere with the normal "supply and demand" signals for milk production. The goal is to empty each breast at every feeding in order to send the hormonal message to refill them.

Most newborns lose several ounces during the first few days of life. After that time, your baby should steadily gain weight at a rate of about ½-1 ounce (15-30 grams) per day.

The number of wet diapers and the color of your baby's stools can also help you assess whether or not your infant is obtaining sufficient breast milk. Most infants urinate 1 to 3 times a day during the first 2-3 days. By 3-4 days of age, when the milk supply has increased, the number of wet diapers will increase to 6-8 or more per 24 hours and the stool color will change from green to yellow.

Your milk supply is also dependent on your ability to get adequate rest, good nutrition and plenty of fluids (about 2 quarts a day). Allow your family and friends to provide meals and help with other family responsibilities so that you don't become worn out. You'll soon be your energetic old self, but realistically expect your recovery to take 2-4 weeks.

Growth spurts: During growth spurts, your baby will suddenly seem hungry every 1-2 hours around the clock. This "cluster feeding" is designed to stimulate the hormone that increases your milk production. You need not worry that you suddenly aren't producing enough milk, and you can expect your baby to resume her normal schedule within a day or two. Growth spurts typically happen around the following ages: 10 days-2 weeks; 5-6 weeks; 2 ½-3 months; and 4 ½-6 months.

YOUR DIET AND BREASTFEEDING

In general, while breastfeeding, eat wisely. Your body needs added calcium (from milk products or dark leafy vegetables) and iron (from prenatal vitamins and food sources) and at least 65 grams of protein a day (the amount of protein in an 8 oz. steak). Fish oils are also important in your diet for good brain development in your infant. If you do not eat fish, talk to your doctor about prenatal supplements containing DHA, such as Expecta®Prenatal.

Do not diet to lose weight while breast-feeding. For successful milk production, your body needs an extra 500 calories/day beyond your normal requirements and at least 2000 calories/day total. Never take any medication routinely (except prenatal vitamins) without informing your pediatrician.

You may take an occasional laxative, acetaminophen (Tylenol) or ibuprofen (Advil or Motrin). Since Benadryl and Sudafed can reduce your milk supply, use Claritin if you need an antihistamine.

BREAST PUMPS

It is very important to use a professional breast pump, such as those rented and sold by lactation consultants, in the following two situations: (1) during the first month of life when you're getting breastfeeding established, and (2) if you have to interrupt breastfeeding for several days; for example, if you have to "pump and dump" while taking a course of antibiotics that isn't compatible with breastfeeding. Manual, battery and small electric pumps aren't adequate for maintaining or establishing the milk supply in these situations, although they work well for occasional pumping.

STORING PUMPED BREAST MILK

Breast milk can be stored in glass (Pyrex®), rigid plastic bottles or in disposable plastic bags that insert into the bottles. Glass and rigid plastic bottles appear to have some advantages as far as preserving immune and nutritional properties of human milk. Frozen breast milk can be thawed in a pan of warm water or allowed to thaw slowly in the refrigerator. Do not use a microwave to thaw or warm the milk. Microwaves heat unevenly and can cause "hot spots" in the bottle that could burn your baby's mouth. Microwaves can also change the nutritional properties of breast milk.

You may store pumped breast milk safely as follows:

- 4 hours at room temperature
- 24 hours in a cooler with ice packs (59 degrees)
- 5-7 days in the refrigerator (39 degrees)
- 3-4 months in a refrigerator freezer (4 degrees)
- 6-12 months in a separate deep freeze

To avoid bacterial contamination of your milk:

- Do not put unconsumed milk back in the refrigerator for longer than 4 hours.
- Do not add leftover milk to a fresh bottle.
- Do not re-freeze thawed milk.
- Do not use thawed (and then refrigerated) milk after 24 hours.

BREASTFEEDING RESOURCES ONLINE

Nutrition during Pregnancy & Breastfeeding:

www.nal.usda.gov/fnic/pubs/bibs/topics/pregnancy/ pregcon.html

American Academy of Pediatrics: www.aap.org

International Lactation Consultant Association: www.ilca.org

La Leche League International: www.lalecheleague.org

BOTTLE FEEDING

Seated comfortably and holding your baby, hold the bottle so that the neck of the bottle and the nipple are always filled with formula. This helps your baby get formula instead of air. Never prop the bottle and leave your baby to feed herself; she could easily choke, and all babies need the security and pleasure of being held at feeding time.

PREPARING THE FORMULA

Your doctor will probably recommend an iron-fortified infant formula, such as Enfamil® Premium™ Newborn or Enfamil® Premium™ Infant. Both are available in Ready-To-Use, Concentrate and Powder forms. Ready-To-Use is the most convenient and most expensive. One can of concentrate (13 ounces) is mixed with one can of water (13 oz.). One scoop of powder is mixed in each 2 oz. of water.

WARMING AND TESTING THE TEMPERATURE OF THE FORMULA

Just before you're ready to feed your baby, you can remove a bottle of formula from the refrigerator and warm it for a few minutes in a container of hot water. Test the temperature by shaking a few drops on the inside of your wrist. Avoid using a microwave because it can heat unevenly, causing "hot spots" that could burn your baby's mouth.

FEED ON DEMAND

Allow your baby to eat when he becomes hungry. Formula-fed babies usually eat every 3-4 hours. After feedings are well established and your baby has regained his birth weight, you may allow your baby to sleep as long as possible between feedings at night unless your pediatrician states otherwise.

HOW MUCH FORMULA?

NEWBORNS: Most newborns feed for 15 to 20 minutes and take ½ to 1-½ ounces per feeding in the first 24 hours. (One ounce equals 30 ml.) As your baby grows and gains weight, he will need more formula per feeding. When your baby takes his entire bottle and cries for more, it is time to increase the amount. Do this by adding ½ - 1 ounce to his bottle until he is satisfied.

INFANTS: During the first few weeks, most newborns will take 2-3 ounces of formula every 3-4 hours, increasing to 4 ounces every 4 hours by one month of age. Your baby's appetite will increase gradually, by about 1 ounce per month, until she's taking 6-8 ounces per feeding 4-5 times a day (around 6 months of age). A good rule of thumb is to take the age in months and add 3 to get the average number of ounces per feeding. For example, an average one month-old will take four ounces per feeding. This rule of thumb does not work during the first few days of life, nor does it work after 4-5 months of age. The American Academy of Pediatrics recommends a maximum of 36 oz. of formula per day.

AFTER THE FEEDING

After the feeding, rinse out bottles and nipples with cool water and squeeze water through the hole of the nipple. When time permits, wash in hot, soapy water or in a dishwasher with a plastic cage that allows nipples to be washed on the top rack

NEWBORN CARE AND COMFORT

BURPING

Both bottle and breastfed babies usually swallow some air during feedings. Burp your baby after each feeding; it usually isn't necessary to interrupt a feeding to burp your baby. Several positions work well for burping: try holding your baby upright against your shoulder; placing him face down across your lap, or having him sit on your lap, leaning forward and resting his chest and chin on your hand. As you gently rub or pat his back, he'll usually burp, but don't worry if he doesn't--a delayed burp is also normal.

PACIFIERS

We now encourage the use of pacifiers to reduce the risk of Sudden Infant Death Syndrome, or "SIDS." If you are nursing, try to avoid using a pacifier for the baby's first two weeks. We do not endorse using a pacifier all day, but use at bedtime or naptime has been shown to reduce the risk of SIDS. The pacifier usually falls out while the baby sleeps, and there is no need to replace it. Pacifiers cause no dental problems in the first 5 years, so don't fear using them. They might help satisfy your baby's desire to suck and make weaning from the breast or bottle easier.

SOLID FOODS

Baby foods such as cereal, vegetables and fruits are now started at 6 months of age. This is later than many mothers were taught in the past because of new information that food allergies and digestive problems might be more common if foods are started earlier. We will discuss starting solid foods at your baby's 6-month check-up.

VITAMINS

We recommend the use of breast milk or an iron-fortified infant formula until 12 months of age, and breastfeeding may be continued into the second year of life if desired. Breastfed infants and those that take less than 32 oz a day of formula should take D-Vi-Sol®, 1 ml every day starting at birth. Infants need the vitamin D supplementation in order to prevent weak bones because babies do not receive as much vitamin D through sunlight nowadays.

FLUORIDE

Fluoride supplementation starting at 6 months of age until approximately 14 years of age reduces cavity risk by approximately 60%. Austin water has the proper fluoride supplement added; however, many outlying communities do not. Ideally your tap water should have fluoride added to a concentration of one part per million (PPM). If you are unsure of your community's fluoride concentration, call your city or county utility department to find out. Also, while most water filters do not remove fluoride, some do, particularly the reverse osmosis water systems. If you are unsure of your system, you will need to check with the manufacturer. If you find that your water source has inadequate fluoride, notify your child's provider who can prescribe supplementary fluoride starting at 6 months of age. Many people prefer to use bottled water with fluoride added rather than prescription fluoride. Also, it is important to know that there are outlying communities with excessive natural fluoride in their water. Excessive fluoride stains teeth permanently, so if you live in one of these communities, contact your pediatrician for advice.

BATHING AND HYGIENE

Most infants need a bath only 2-3 times a week, but you should clean the face, chin, neck and diaper area daily. Withhold regular tub baths until the umbilical cord has fallen off and healed: until then simply sponge bathe and keep the cord dry. Use mainly plain water (no soap) for the first few weeks. Soaps are drying to the newborn's already-dry skin. Mild cleansers (such as Dove®, Tone®, Cetaphil® or Olay®) may be used in small amounts. You may use soap daily to clean the diaper area. Take care to wash and dry the skin folds at the neck, arms, groin, vagina or scrotum. Your baby might develop "newborn acne" over the first few weeks. This is not treated as an infection; it is due to hormonal adjustment. Simply keep the skin clean and dry. To clean your baby's eyes, use a clean washcloth dipped in water. You may shampoo the baby's hair with baby shampoo or a mild liquid soap. Use a soft brush to scrub her scalp. Never leave your baby unattended in the bath.

NAIL CARE

Keep nails clean and short. We prefer that you use an emery board in the newborn period until the nails have separated from the skin. It is easiest to trim your baby's nails while she's asleep. If you use clippers or scissors, be sure to cut the nail squarely across to avoid cutting the cuticle.

UMBILICAL CORD CARE

Clean the skin around the base of the umbilical cord once a day with a cotton swab or Q-tip soaked in rubbing alcohol until it falls off. This will not hurt your baby. The umbilical cord is not actually part of your baby; it's part of the discarded placenta, and there are no nerve endings in it. Babies sometimes cry because the alcohol feels cold. Most cords fall off within 2-3 weeks.

VAGINAL MUCUS

Baby girls might have white mucus drainage with occasional streaks or blobs of blood from their vaginas during the first 3-4 weeks of life. This is caused by the hormonal adjustments after birth. Do not try to wipe the mucus away completely. It is very important to wipe baby girls from front to back when cleaning stool from their vaginal area.

UNCIRCUMCISED BOYS

Clean the outside of the uncircumcised penis as you would any other part of the baby's body. The foreskin of the uncircumcised penis is normally attached to the tip of the penis in layers of tissue. As the baby grows, the skin will eventually separate and allow the foreskin to slide back naturally. You should never try to force the skin back as this could cause bleeding and possible infections. In some boys, the skin retracts by one year of age; in others, full foreskin retraction might occur as late as adolescence. As long as your baby can urinate normally, you should not be too concerned about whether the foreskin retracts.

CIRCUMCISED BOY

If your baby boy has been circumcised, your doctor will give you specific instructions on how to care for it, depending on the type of circumcision performed. If a small plastic ring

is attached, simply clean with water at every diaper change until the plastic ring falls off (usually 3--8 days later). If the foreskin is removed completely, you might be instructed to apply Vaseline-coated gauze until the yellowish scab is gone. The yellowish scab is part of the normal healing process; it is not pus, so don't try to wipe it off.

STOOLS

Your baby might have a bowel movement after each feeding or have 1-2 stools a day. Breastfed stool will look and sound like gassy, watery diarrhea when your "milk is in" by the 4th day. If stools are excessively watery or contain blood or mucus, please let us know. At 2-3 months, some breastfed babies start having stools only once a week. If the stool is soft, this is normal. Normal breastfed stools are yellow & seedy-looking.

CARE OF DIAPER AREA

If you use cloth diapers, a diaper service can be helpful. If you wash them yourself, rinse diapers twice in the washer and after the wash cycle is completed, add ½ cup of white vinegar to the last rinse.

WASHING CLOTH DIAPERS

If you use cloth diapers, a diaper service can be helpful. If you wash them yourself, rinse diapers twice in the washer and after the wash cycle is completed, add ½ cup of white vinegar to the last rinse.

ROOM TEMPERATURE

The room temperature should be kept comfortable. It is normal for the baby's hands and feet to feel slightly cool and be splotchy. Don't over-dress or over-wrap your baby. Your baby should not be sweating! A thin hospital blanket is usually sufficient. In the first 2 weeks of life, make sure your infant wears a hat and socks.

SLEEPING

Recent studies showed a decreased incidence of "SIDS" (Sudden Infant Death Syndrome or "crib death") when babies were put to sleep on their backs instead of their stomachs; therefore, the American Academy of Pediatrics recommends that all babies sleep on their backs. Do not place your infant on her side to sleep even if she spits up because it is an unstable sleeping position and does not lower the risk of choking death in normal babies. The risk of SIDS overall is low and decreases after 6 months of age.

The mattress should be firm and flat and no pillows should be used. Protect the mattress with a waterproof cover. Be sure there are no gaps between the mattress and the side of the crib.

The current recommendation is for infants to sleep in a bassinet or crib in the parents' room during the first six months. It is not necessary to maintain absolute quiet for a baby to sleep; in fact, it is better not to let your baby become accustomed to an artificially quiet environment so that she will learn how to sleep in most situations. At 2 weeks of age, introduce a pacifier for falling asleep.

TUMMY TIME

Although sleeping on the back is important, it is also important for your baby to have regular supervised “tummy time” while she’s awake. Do tummy time on a blanket 5 times a day until she gets mad or falls asleep. This helps your baby get used to lying on her stomach and helps her develop strong back and neck muscles. It also prevents a commonly seen flattening of the head that babies will develop if they are always kept on their backs. If you start to notice a flattening of the head on one side or the other, you need to increase the amount of time she spends on her tummy while she’s awake. It is also a good idea to place your baby in different directions in the crib or bassinette to keep the head nice and round. Babies turn their heads towards your scent and voice, so alternate the direction of the bassinette in relation to you and turn your baby’s head towards you (so there is equal time on each side).

CRYING, COLIC & REFLUX

Normal crying: All babies cry each day. By two weeks of age, most normal infants will have a fussy period each day, usually in the evening. This fussiness normally peaks at 6 weeks of age and lasts up to 3 hours per day. By 3 months of age, it usually diminishes to one or two hours per day. As long as your baby calms down within a few hours and is reasonably happy during the rest of the day, there is no cause for alarm.

Colic: Approximately 20% of all babies develop colic, usually between the 2nd and 6th week. There is no definite explanation for why some babies get colic. It’s helpful to remember that your baby will outgrow it; the crying will not cause emotional damage, and it is not your fault or the result of anything you have done. It just happens.

Reflux: If the crying becomes worse and lasts throughout the day or night, it might be caused by stomach acid that backs up into the esophagus. We call this condition “reflux,” also known as gastroesophageal reflux disease or “GERD.” We suspect reflux in an infant who cries when she spits up, cries during feedings, or arches her back and pulls herself off the breast or bottle, often early in the feeding (and repeatedly) while she’s still very hungry. If you suspect reflux, please schedule an appointment.

Persistent or inconsolable crying: If you can’t soothe your baby, please check her temperature. If she is under 3 months of age, check it rectally and call us (day or night) if it is 100.4° F or higher. You also need to call us if the crying is inconsolable and persists for more than two hours. Anytime you are concerned about your child’s well-being, please don’t hesitate to call us, schedule an appointment or take her to the emergency room. **We strongly recommend Dell Children’s Medical Center or North Austin Medical Center Children’s ER, where pediatric specialists are readily available.**

Soothing a crying baby: We recommend a book written by pediatrician, Dr. Harvey Karp, called *The Happiest Baby on the Block*, in which he describes five effective techniques beginning with the letter “S” that soothe crying infants: Swaddle, Side (holding your baby’s back against your abdomen while she’s positioned on her side), Suck (pacifier or finger), Swing (any movement) and Shush (“Shhhhhh” or any white noise louder than the baby’s cry and gradually decreasing the volume). Attend to your baby’s cries; you cannot “spoil” a baby younger than 4 months of age.

Schedule rest and relaxation for yourself: You need time away from a baby who cries a lot. Be creative. For example, you can hire a teenager as a “mother’s helper” and let her entertain your baby while you nap, have coffee with a friend or catch up on laundry. Both you and your baby benefit when you are rested and refreshed.

GAS

When babies cry, parents often associate their discomfort with gas. Intestinal gas is normal in newborns and is not a sign of illness nor is it thought to actually cause discomfort. Some babies seem to feel better after taking Mylicon® drops (simethicone) which make tiny gas bubbles coalesce into larger bubbles; however, it might be Mylicon’s sweet taste that distracts babies from their crying. Nevertheless, you may use Mylicon® drops as often as desired if they seem to help since they are safe and do not contain medication.

CONSTIPATION

Babies often strain, turn red and seem distressed when they have bowel movements. This is normal and does not mean they are constipated. If the crying and straining persists more than 10 minutes, we recommend inserting a rectal thermometer or half of an infant glycerin suppository (lubricated with KY® jelly or Vaseline®) to stimulate her urge to poop. If stools are persistently hard and difficult for your baby to expel, try giving her up to 4 ounces of undiluted apple, prune or pear juice per day. If these methods are ineffective, call our office for an appointment or additional guidance.

TEETHING

Baby teeth may begin to erupt as early as 2-3 months of age or as late as 14 months. Most children are 6 months old before this event. We recommend a cold teething ring since this allows the child to chew and simultaneously provides a good local anesthetic. It is not recommended to use numbing gels or homeopathic teething tablets/gel for discomfort. Teething does not cause fever (a temperature of 100.4° F or higher) or significant diarrhea, although it might cause a mild temperature elevation (99-100° F) and loose stools.

DAY CARE

In babies less than two months of age, contagious illnesses have a much greater potential for harm. We recommend that you wait at least 8-12 weeks before you place your infant in child care, church nurseries or similar environments.

FRIENDS AND RELATIVES

Ask each person to wash or sanitize his hands before holding your newborn. Limit your baby’s visitors to healthy close friends and relatives. All others should not be allowed to come in close contact with your baby. You may put the blame for this on your pediatrician if necessary to avoid hurt feelings. Don’t take your baby shopping or around other large groups of people for at least 2 months if possible.

SNEEZING and HICCOUGHS

Sneezing is the only way a baby can clear his nose of mucus, lint, or milk curds.

Hiccoughs are little spasms of the diaphragm muscle. Sneezing and hiccoughs are perfectly normal, and it isn't necessary to do anything about them.

SMOKING

Smoking in the household increases the frequency of respiratory illnesses and ear infections and could increase your child's risk of Sudden Infant Death Syndrome and cancer. If you smoke, please stop for your baby's sake. Ask grandparents and caregivers to also refrain from smoking around your child.

ITEMS YOU WILL NEED FOR NEWBORN CARE:

- digital rectal thermometer
- soft washcloths
- bulb syringe, or Nasal Clear® aspirator
- Dove® bar soap
- Mylicon® drops
- saline nose drops
- emery board
- Desitin®, Balmex®, etc.

DO NOT USE THE FOLLOWING PRODUCTS:

- powders of any kind
- perfumed lotions
- strong soaps like Baby Magic®, Johnson & Johnson's®
- acetaminophen (Tylenol®) until your baby is at least 2 months old
- cough and cold medicines until your child is at least 6 years old
- water until 3-4 months of age
- ibuprofen (Motrin®) until 6 months of age

WELL CHILD CHECK-UP AND IMMUNIZATION SCHEDULE

The keystone to pediatric care is preventative medicine. During each checkup, your child will receive a complete physical examination, growth measurements, and the necessary immunizations and/or screening tests appropriate for his or her age. The pediatrician will also discuss feeding and development with you.

Here are the 2018 American Academy of Pediatrics (AAP) Immunization Recommendations and our well child checkup schedule. Before an appointment, it is helpful to read this section for information about each of the vaccines your child is due to receive. Please remember to bring your child's immunization record to all appointments. It is important to keep this record up-to-date. You will need to provide proof of immunization for daycare and school registration.

IMMUNIZATION ABBREVIATION KEY

DTaP -- Diphtheria, Tetanus, acellular Pertussis

Flu – Influenza

Hep A -- Hepatitis Type A

Hep B -- Hepatitis Type B

Hib -- Haemophilus influenza type B

HPV – Human Papilloma Virus (brand name “Gardasil”)

IPV -- Inactivated Polio Vaccine (not a live vaccine)

MCV – Meningococcal conjugate vaccine (brand name “Menactra”)

MMR -- Measles, Mumps, Rubella

PCV -- Pneumococcal conjugate vaccine (brand name “Prevnar”)

Rotavirus – brand name “Rotateq”

Tdap –Tetanus, diphtheria, acellular pertussis (brand names “Boostrix” and “Adacel”)

Var – Varicella (for the virus that causes chicken pox; brand name “Varivax”)

IMMUNIZATION AND WELL VISIT SCHEDULE

At Birth (in the hospital)	Hep B #1, initial newborn metabolic screen, hearing test, vitamin K, erythromycin eye ointment
2-3 days after hospital discharge	1 st office visit with weight check
2 weeks	repeat newborn metabolic screen, optional supplemental newborn metabolic (Baylor) screen
1 month	Optional visit to check for head symmetry
2 months	Pentacel (DTaP/IPV/Hib) Hep B, Prevnar, Rotateq Pentacel
4 months	(DTaP/IPV/Hib), Prevnar, Rotateq
6 months*	Pentacel (DTaP/IPV/Hib) Prevnar, Rotateq, Hep B
9 months*	developmental assessment, anemia risk assessment MMR,
12 months*	Varivax, HepA
15 months*	Pentacel (DTaP/IPV/Hib), Prevnar, anemia check (hemoglobin)
18 months*	Hep A, autism screening, developmental assessment well
24 months*	child check, autism screening
30 months*	well child check, developmental screening
3 years*	well child check, vision screening
4 years*	Quadacel ((DTaP/IPV), Proquad (MMRV), hearing & vision
5 yrs - 10 years*	well check every year, at 9 year cholesterol screening
11-12 years*	Menactra, Tdap, HPV
12-18 years*	well check every year
16 years*	Menactra
18 years	Men B, cholesterol screening

* Annual Influenza vaccine during flu season for infants six months old and older, children and adolescents

PREVENTIVE SCREENING TESTS

- Anemia: at 9-15 months
- Cholesterol: children from high-risk families as discussed with provider
- Lead: risk assessment at 6, 9, 12, 18 & 24 months and 3-6 years of age
- Urinalysis: annually for sexually-active adolescents
- Hearing: starting at 4 years of age (often done at school or preschool)
- Vision: starting at 1 year, photo screener or acuity chart
- Autism screening: at 18 & 24 months

SIGNS OF ILLNESS

In infants less than 3 months of age, call to report the following symptoms as soon as possible:

- A rectal temperature of 100.4° F or higher
- Vomiting, especially bile-tinted (yellow or green) or projectile
- Listlessness, a weak cry, or limp muscle tone
- Poor feeding or refusal of several feedings in a row
- Poor color (pale, dusky or bluish color, bluish lips or nail beds)
- Grunting with every breath, labored breathing or wheezing
- A rash that doesn't blanch when you press on it
- No urine for more than 12 hours
- Inconsolable crying for more than 2 hours

FEVER

Normal body temperature varies between 97° and 100.3° Fahrenheit. Fever is defined as a rectal temperature of 100.4° F or higher. If you think your child has a fever, take his/her temperature orally, rectally or under the arm. Use the rectal method if your baby is under 3 months of age. Digital thermometers will signal when the temperature reading is complete. Ear and temporal artery thermometers can give a reading in 1-2 seconds. Do not use ear thermometers in infants less than 3 months of age; they are not accurate for infants in this age group.

Fever can be beneficial and help your child fight infections. If your child is younger than three months with a fever, call the office or after-hour number and do not give any fever-reducing medication to avoid masking other symptoms. If your child is older than 3 months of age and uncomfortable with a fever over 101° F, you may give acetaminophen (Tylenol®) every 4-6 hours. For children with fever over 6 months of age, you may give ibuprofen (Motrin®) every 6-8 hours.

Call the office or after-hours number if you are concerned about your child's fever or if:

- Your child looks very sick one hour after a dose of acetaminophen or ibuprofen
- The fever goes above 105° F degrees
- The fever persists without any apparent cause for more than 24 hours in a child under 2 years of age
- The rectal temperature is 100.4° F or higher in an infant less than 3 months of age
- The fever is greater than 102.5° F degrees if 3-6 months of age
- The fever lasts more than 3 days
- Your child becomes worse

MEDICATIONS FOR FEVER

DO NOT USE ASPIRIN to control your child’s fever. Aspirin is no longer recommended for children under 16 years of age due to the link between the use of aspirin during viral illnesses and Reye’s syndrome.

These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in tables below. To determine minimum intervals between doses, see the catch-up schedule. School entry and adolescent vaccine age groups are 4-6 yrs, 11-12 yrs, and 16 yrs.

Range of recommended ages for all children	Range of recommended ages for catch-up immunization	Range of recommended ages for certain high-risk groups	Range of recommended ages for non-high-risk groups that may receive vaccine, subject to individual clinical decision making	No recommendation
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BIRTH TO 15 MTHS

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos
Hepatitis B ¹ (HepB)	1 st dose	→2 nd dose→					→3 rd dose→	
Rotavirus ² (RV) RV1 (2-dose series); RV5 (3-dose series)			1 st dose	2 nd dose	See footnote 2			
Diphtheria, tetanus, & acellular pertussis ³ (DTaP; <7 yrs)			1 st dose	2 nd dose	3 rd dose			→4 th dose→
Haemophilus influenzae type b ⁴ (Hib)			1 st dose	2 nd dose	See footnote 4		→3 rd or 4 th dose See footnote 4→	
Pneumococcal conjugate ⁵ (PCV13)			1 st dose	2 nd dose	3 rd dose		→4 th dose→	
Inactivated poliovirus ⁶ (IPV;<18 yrs)			1 st dose	2 nd dose			→3 rd dose→	
Influenza ⁷ (IV)						Annual vaccination (IV) 1 or 2 doses		
Measles, mumps, rubella ⁸ (MMR)					See footnote 8		→1 st dose→	
Varicella ⁹ (VAR)							→1 st dose→	
Hepatitis A ¹⁰ (HepA)							→2 dose series. See footnote 10→	
Meningococcal ¹¹ MenACWY-D ≥9 mos; MenACWY-CRM ≥2 mos)					See footnote 11			
Tetanus, diphtheria, & acellular pertussis ¹² (Tdap; ≥7 yrs)								
Human papillomavirus ¹⁴ (HPV)								
Meningococcal B ¹²								
Pneumococcal polysaccharide ⁵ (PPSV23)								

18 MTHS TO 18 YRS

Vaccines	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
Hepatitis B ¹ (HepB)	→3 rd dose→								
Rotavirus ² (RV) RV1 (2-dose series); RV5 (3-dose series)									
Diphtheria, tetanus, & acellular pertussis ³ (DTaP; <7 yrs)	→4 th dose→			5 th dose					
Haemophilus influenzae type b ⁴ (Hib)									
Pneumococcal conjugate ⁵ (PCV13)									
Inactivated poliovirus ⁶ (IPV;<18 yrs)	→3 rd dose→			4 th dose					
Influenza ⁷ (IV)	Annual vaccination (IV) 1 or 2 doses				Annual vaccination (IV) 1 dose only				
Measles, mumps, rubella ⁸ (MMR)				2 nd dose					
Varicella ⁹ (VAR)				2 nd dose					
Hepatitis A ¹⁰ (HepA)	→2 dose series. See footnote 10→								
Meningococcal ¹¹ MenACWY-D ≥9 mos; MenACWY-CRM ≥2 mos)	See footnote 11					1 st dose		2 nd dose	
Tetanus, diphtheria, & acellular pertussis ¹² (Tdap; ≥7 yrs)						Tdap			
Human papillomavirus ¹⁴ (HPV)						See footnote 14			
Meningococcal B ¹²								See footnote 12	
Pneumococcal polysaccharide ⁵ (PPSV23)								See footnote 5	

FOOTNOTES : Recommended Immunization Schedule for Persons Age 0 Through 18 Years United States, 2018

For further guidance on the use of the vaccines mentioned below, see the ACIP Recommendations. For vaccine recommendations for persons 19 years of age and older, see the adult immunization schedule. See additional notes for Recommended Immunization Schedule for Persons Age 0 Through 18 Years and Catch-up Immunization Schedule.

1. Hepatitis B (HepB) vaccine. (minimum age: birth)

Birth dose (monovalent HepB vaccine only):

- Mother is HBsAg-negative: 1 dose within 24 hours of birth for medically stable infants ≥2,000 grams. Infants <2,000 grams administer 1 dose at chronological age 1 month or hospital discharge.

Mother is HBsAg-positive:

- Give 1 dose HepB vaccine and 0.5 mL of HBIG (at separate anatomic sites) within 12 hours of birth, regardless of birth weight.
- Test for HBsAg and anti-HBc at age ≥12 months. If HepB series is delayed, test 1–2 months after final dose.

Mother's HBsAg status is unknown:

- Give HepB vaccine within 12 hours of birth, regardless of birth weight.
- For infants <2,000 grams, give 0.5 mL of HBIG in addition to HepB vaccine within 12 hours of birth.
- Determine mother's HBsAg status as soon as possible. If mother is HBsAg-positive, give 0.5 mL of HBIG to infants ≥200 grams as soon as possible, but no later than 7 days of age.

Routine series:

- A complete series is 3 doses at 0, 1–2, and 6–18 months. (Monovalent HepB vaccine should be used for doses given before age 6 weeks.)
- Infants who did not receive a birth dose should begin the series as soon as feasible (see catch-up schedule).
- Administration of 4 doses is permitted when a combination vaccine containing HepB is used after the birth dose.

Minimum age for the final (3rd or 4th) dose: 24 weeks.

Minimum intervals: Dose 1 to Dose 2: 4 weeks / Dose 2 to Dose 3: 4 weeks / Dose 1 to Dose 3: 16 weeks. (When 4 doses are given, substitute "Dose 4" for "Dose 3" in these calculations.)

Catch-up vaccination:

- Unvaccinated persons should complete a 3-dose series at 0, 1–2, and 6 months.
- Adolescents 11–15 years of age may use an alternative 2-dose schedule, with at least 4 months between doses (adult formulation Recombivax HB only).

For other catch-up guidance, see catch-up schedule.

2. Rotavirus vaccines. (minimum age: 6 weeks)

Routine vaccination:

- Rotaric: 2-dose series at 2 and 4 months.
- Rotateq: 3-dose series at 2, 4, and 6 months.
- If any dose in the series is either Rotaric or unknown, default to 3-dose series.

Catch-up vaccination:

- Do not start the series or on age 15 weeks, 0 days.
- The maximum age for the final dose is 8 months, 0 days.

For other catch-up guidance, see catch-up schedule.

3. Diphtheria, tetanus, and acellular pertussis (DTaP) vaccine. (minimum age: 6 weeks [4 years for Kinrix or Quadracel])

Routine vaccination:

- 2-dose series at 2, 4, and 15–18 months and 4–6 years.
- Prospective: 11–15 years of age may be given as early as age 12 months if at least 6 months have elapsed since the 3rd dose.
- Retrospectively: A 4th dose that was inadvertently given as early as 12 months may be counted if at least 4 months have elapsed since the 3rd dose.

Catch-up vaccination:

- The 5th dose is not necessary if the 4th dose was administered at 4 years or older.

For other catch-up guidance, see catch-up schedule.

4. Haemophilus influenzae type b (Hib) conjugate vaccines. (minimum age: 6 weeks)

Routine vaccination:

- ActHib, Hibivac, or Pentacel: 4-dose series at 2, 4, 6, and 12–15 months.
- PedvaxHib: 3-dose series at 2, 4, and 12–15 months.

Catch-up vaccination:

- 1st dose at 7–11 months: Give 2nd dose at least 4 weeks later and 3rd (final) dose at 12–15 months or 6 weeks after 2nd dose (whichever is later).
- 1st dose at 12–14 months: Give 2nd (final) dose at least 6 weeks after 1st dose.
- 1st dose before 12 months and 2nd dose before 16 months: Give 3rd (final) dose 8 weeks after 2nd dose.
- 1st dose of PedvaxHib before 12 months: Give 3rd (final) dose at 12–59 months and 1st dose after 2nd dose.
- Unvaccinated at 15–59 months: 1 dose.

For other catch-up guidance, see catch-up schedule.

Special situations:

- Chemotherapy or radiation treatment 12–59 months
- Unvaccinated or only 1 dose before 12 months: Give 2 doses, 8 weeks apart.
- 2 or more doses before 12 months: Give 1 dose, at least 8 weeks after previous dose.
- Doses given within 14 days of starting therapy or during therapy should be repeated at least 3 months after therapy completion.
- Hematopoietic stem cell transplant (HSCT)
- 3-dose series with doses 4 weeks apart starting 6 to 12 months after successful transplant (regardless of Hib vaccination history).
- Anatomic or functional asplenia (including sickle cell disease) 12–59 months
- Unvaccinated or only 1 dose before 12 months: Give 2 doses, 8 weeks apart.
- 2 or more doses before 12 months: Give 1 dose, at least 8 weeks after previous dose.
- Unimmunized* persons 5 years or older
- Give 1 dose.
- Effective splenectomy
- Unimmunized* persons 15 months or older
- Give 1 dose (preferably at least 14 days before procedure).
- HIV infection 12–59 months
- Unvaccinated or only 1 dose before 12 months: Give 2 doses, 8 weeks apart.
- 2 or more doses before 12 months: Give 1 dose, at least 8 weeks after previous dose.
- Unimmunized* persons 5–18 years
- Give 1 dose.
- Immunoglobulin deficiency, early component complement deficiency 12–59 months
- Unvaccinated or only 1 dose before 12 months: Give 2 doses, 8 weeks apart.
- 2 or more doses before 12 months: Give 1 dose, at least 8 weeks after previous dose.

*Unimmunized = less than routine series (through 14 months) OR no doses [12 months or older]

5. Pneumococcal vaccines. (minimum age: 6 weeks [PCV13], 2 years [PPSV23])

Routine vaccination:

- 4-dose series at 2, 4, 6, and 12–15 months.

Catch-up vaccination with PCV13:

- 1 dose for healthy children aged 24–59 months with any incomplete* PCV13 schedule

For other catch-up guidance, see catch-up schedule.

Special situations: High-risk conditions:

Administer PCV13 doses before PPSV23 if possible.

Chronic heart disease (particularly cyanotic congenital heart disease and cardiac failure); chronic lung disease (including asthma treated with high-dose, oral, corticosteroids); diabetes mellitus:

Age 2–4 years:

- Any incomplete* schedules with:
- > PCV13 doses: 1 dose of PCV13 (at least 8 weeks after any prior PCV13 dose).
- <3 PCV13 doses: 2 doses of PCV13, 8 weeks after the most recent dose and given 8 weeks apart.
- No history of PPSV23: 1 dose of PCV13 (at least 8 weeks after any prior PCV13 dose).

Age 6–18 years:

- No history of PPSV23: 1 dose of PPSV23 (at least 8 weeks after any prior PCV13 dose).

Cerebrospinal fluid leak; cochlear implant:

Age 2–4 years:

- Any incomplete* schedules with:
- > PCV13 doses: 1 dose of PCV13 (at least 8 weeks after any prior PCV13 dose).
- <3 PCV13 doses: 2 doses of PCV13, 8 weeks after the most recent dose and given 8 weeks apart.
- No history of PPSV23: 1 dose of PPSV23 (at least 8 weeks after any prior PCV13 dose).

Age 6–18 years:

- No history of either PCV13 or PPSV23: 1 dose of PCV13, 1 dose of PPSV23 (at least 8 weeks later).
- Any prior PCV13 but no PPSV23: 1 dose of PPSV23 at least 8 weeks after the most recent dose of PCV13.
- PPSV23 but no PCV13: 1 dose of PCV13 at least 8 weeks after the most recent dose of PPSV23.

Sickle cell disease and other hemoglobinopathies; anatomic or functional asplenia; congenital or acquired immunodeficiency; HIV disease; chronic renal failure; nephrotic syndrome; malignant neoplasms, leukemia, lymphomas, Hodgkin disease, and other diseases associated with treatment with immunosuppressive drugs or radiation therapy; solid organ transplantation; multiple myeloma:

Age 2–4 years:

- Any incomplete* schedules with:
- > PCV13 doses: 1 dose of PCV13 (at least 8 weeks after any prior PCV13 dose).
- <3 PCV13 doses: 2 doses of PCV13, 8 weeks after the most recent dose and given 8 weeks apart.
- No history of PPSV23: 1 dose of PPSV23 (at least 8 weeks after any prior PCV13 dose and 2nd dose of PPSV23 5 years later).

Age 6–18 years:

- No history of either PCV13 or PPSV23: 1 dose of PCV13, 2 doses of PPSV23 (1st dose of PPSV23 administered 8 weeks after PCV13 and 2nd dose of PPSV23 administered at least 5 years after the 1st dose of PPSV23).
- Any prior PCV13 but no PPSV23: 2 doses of PPSV23 (1st dose of PPSV23 to be given 8 weeks after the most recent dose of PCV13 and 2nd dose of PPSV23 administered at least 5 years after the 1st dose of PPSV23).
- PPSV23 but no PCV13: 1 dose of PCV13 at least 8 weeks after the most recent PPSV23 dose and a 2nd dose of PPSV23 to be given 5 years after the 1st dose of PPSV23 and at least 8 weeks after a dose of PCV13.

Chronic liver disease, alcoholism:

Age 6–18 years:

- No history of PPSV23: 1 dose of PPSV23 (at least 8 weeks after any prior PCV13 dose).

Immunization schedules are any schedules where PCV13 doses have not been completed according to ACIP recommended catch-up schedules. The total number and timing of doses for complete PCV13 series are dictated by the age at presentation. See Tables 8 and 9 in the ACIP pneumococcal vaccine recommendations [www.cdc.gov/mmwr/pdf/rr11.pdf#44 pages]] for complete schedule and timing of doses for complete PCV13 series.

6. Inactivated poliovirus vaccine (IPV). (minimum age: 6 weeks)

Routine vaccination:

- 4-dose series at ages 2, 4, 6–18 months, and 4–6 years. Administer the final dose on or after the 4th birthday and at least 6 months after the previous dose.

Catch-up vaccination:

- In the first 6 months of life, use minimum ages and intervals only for travel to a polio-endemic region or during an outbreak.
- If 4 or more doses were given before the 4th birthday, give 1 more dose at age 4–6 years and at least 6 months after the previous dose.
- A 4th dose is not necessary if the 3rd dose was given on or after the 4th birthday and at least 6 months after the previous dose.
- IPV is not routinely recommended for U.S. residents 18 years of age and older.

Series containing oral polio vaccine (OPV), either mixed OPV-IPV or OPV-only series:

- Total number of doses needed to complete the series is the same as that recommended for the U.S. IPV schedule. See <https://www.cdc.gov/mmwr/volumes/66/wmm0801a6.htm>.
- Only live-attenuated OPV (OPV) counts toward the U.S. vaccination requirements. For guidance to assess doses documented as "OPV" see <https://www.cdc.gov/mmwr/volumes/66/wmm0801a6.htm>.

For other catch-up guidance, see catch-up schedule.

7. Influenza vaccines. (minimum age: 6 months) Routine vaccination:

- Administer an age-appropriate formulation and dose of influenza vaccine annually.
- Children 6 months–8 years who did not receive at least 2 doses of influenza vaccine before July 1, 2017, should receive 2 doses separated by at least 4 weeks.
- Persons 9 years and older: 1 dose.
- Live, attenuated influenza vaccine (LAIV) is not recommended for the 2017–18 season.
- For additional guidance, see the 2017–18 ACIP influenza vaccine recommendations [MMWR August 25, 2017;66(2):1–20: <https://www.cdc.gov/mmwr/volumes/66/wmm0825a1.pdf#44 pages>].

(For the 2018–19 season, see the 2018–19 ACIP influenza vaccine recommendations.)

8. Measles, mumps, and rubella (MMR) vaccine. (minimum age: 12 months for routine vaccination)

Routine vaccination:

- 2-dose series at 12–15 months and 4–6 years. The 2nd dose may be given as early as 4 weeks after the 1st dose.

Catch-up vaccination:

- Unvaccinated children and adolescents: 2 doses at least 4 weeks apart.

International travel:

- Infants 6–11 months: 1 dose before departure. Re-vaccinate with 2 doses at 12–15 months (12 months for children in high-risk areas) and 2nd dose as early as 4 weeks later.
- Unvaccinated children 12 months and older: 2 doses at least 4 weeks apart before departure.

Mumps outbreak:

- Persons ≥12 months who previously received 2 doses of mumps-containing vaccine and are identified by public health authorities to be at increased risk during a mumps outbreak should receive a dose of mumps-virus containing vaccine.

9. Varicella (VAV) vaccine. (minimum age: 12 months)

Routine vaccination:

- 2-dose series: 12–15 months and 4–6 years.
- The 2nd dose may be given as early as 3 months after the 1st dose (a dose given after a 4-week interval may be counted).

Catch-up vaccination:

- Ensure persons 7–18 months without evidence of immunity (see MMWR 2007;56[No. RR-4]: www.cdc.gov/mmwr/preview/mmwrhtml/mm56rr04a1.htm).
- Ages 13 years and older: minimum interval 4 weeks.

10. Hepatitis A (HepA) vaccine. (minimum age: 12 months)

Routine vaccination:

- 2 doses, separated by 6–18 months, between the 1st and 2nd birthdays. (A series begun before the 2nd birthday should be completed even if the child turns 2 between the 2nd dose is given.)

Catch-up vaccination:

- Anyone 2 years of age or older may receive HepA vaccine if desired. Minimum interval between doses is 6 months.

Special populations:

Previously unvaccinated persons who should be vaccinated:

- Persons traveling to or working in countries with high or intermediate HepA endemicity
- Men who have sex with men
- Users of injection and non-injection drugs
- Persons who work with hepatitis A virus in a research laboratory or with non-human primates
- Persons with chronic liver disease
- Persons with clotting-factor disorders
- Persons with chronic liver disease
- Persons who anticipate close, personal contact (e.g., household or regular babysitting) with an international adoptee during the first 60 days after arrival in the United States from a country with high or intermediate endemicity (administer the 1st dose as soon as the adoption is planned; ideally at least 2 weeks before the adoptee's arrival)

11. Serogroup A, C, W, Y meningococcal vaccines. (Minimum age: 2 months [Menveo], 9 months [Menactra].)

Routine:

- 2-dose series: 11–12 years and 16 years.

Catch-up:

- Age 13–15 years: 1 dose now and booster at age 16–18 years. Minimum interval 8 weeks.
- Age 16–18 years: 1 dose.

Special populations and situations:

Anatomic or functional asplenia, sickle cell disease, HIV infection, persistent complement component deficiency (including complement deficiency):

- Menveo
- 1st dose at 8 weeks: 4-dose series at 2, 4, 6, and 12 months.
- 1st dose at 7–23 months: 2 doses (2nd dose at least 12 weeks after the 1st dose and after the 1st birthday).
- 1st dose at 24 months or older: 2 doses at least 8 weeks apart.

• Menactra

- Persistent complement component deficiency: 9–23 months: 2 doses at least 12 weeks apart.
- 14 months or older: 2 doses at least 12 weeks apart.
- Anatomic or functional asplenia, sickle cell disease, or HIV infection: 24 months or older: 2 doses at least 8 weeks apart.
- Menactra must be administered at least 4 weeks after completion of PCV13 series.

Children who travel to or live in countries where meningococcal disease is hyperendemic or epidemic, including countries in the African meningitis belt or during the Hajj, or exposure to an outbreak attributable to a vaccine serogroup:

- Children <4 months of age: Menveo (2–23 months).
- 1st dose at 8 weeks: 4-dose series at 2, 4, 6, and 12 months.
- 1st dose at 7–23 months: 2 doses (2nd dose at least 12 weeks after the 1st dose and after the 1st birthday).
- Menactra (9–23 months): 2 doses (2nd dose at least 12 weeks after the 1st dose. 2nd dose may be administered as early as 8 weeks after the 1st dose in travelers).
- Children 2 years of age or older: 1 dose of Menveo or Menactra.

Note: Menactra should be given either before or at the same time as DTaP. For MenACWY booster dose recommendations for groups listed under "Special populations and situations" above, see the meningococcal vaccination information, see meningococcal MMWR publications at: www.cdc.gov/vaccines/imz/immunization/meningococcal/

12. **Serogroup B meningococcal vaccines (minimum age: 10 years [Bexsero, Trumenba].Clinical discretion: Adolescents not at increased risk for meningococcal B infection who want MenB vaccine.**MenB vaccines may be given at clinical discretion to adolescents 16–23 years (preferred age 16–18 years) who are not at increased risk.
- Bexsero: 2 doses at least 1 month apart.
 - Trumenba: 2 doses at least 6 months apart. If the 2nd dose is given earlier than 6 months, give a 3rd dose at least 4 months after the 2nd.
- Special populations and situations:**
Anatomic or functional asplenia, sickle cell disease, persistent complement component deficiency (including eculizumab use), serogroup B meningococcal disease outbreak:
- Bexsero: 2-dose series at least 1 month apart.
 - Trumenba: 3-dose series at 0, 1–2, and 6 months.
- Note: Bexsero and Trumenba are not interchangeable.
- For additional meningococcal vaccination information, see meningococcal MMWR publications at: www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mening.html.
13. **Tetanus, diphtheria, and acellular pertussis (Tdap) vaccine.** (minimum age: 11 years for routine vaccinations, 7 years for catch-up vaccination)
- Routine vaccination:**
- Adolescents 11–12 years of age: 1 dose.
 - Pregnant adolescents: 1 dose during each pregnancy (preferably during the early part of gestational weeks 27–36).
 - Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxin-containing vaccine.
- Catch-up vaccination:**
- Adolescents 13–18 years who have not received Tdap: 1 dose, followed by a Td booster every 10 years.
 - Persons aged 7–18 years not fully immunized with DTaP*: 1 dose of Tdap as part of the catch-up series (preferably the first dose). If additional doses are needed, use Td.
 - Children 7–10 years who receive Tdap inadvertently or as part of the catch-up series may receive the routine Tdap dose at 11–12 years.
 - DTaP inadvertently given after the 7th birthday:
Children 7–10 years: DTaP may count as part of catch-up series. Routine Tdap dose at 11–12 may be given.
Adolescents 11–18 years: Count dose of DTaP as the adolescent Tdap booster.
- For other catch-up guidance, see catch-up schedule.
14. **Human papillomavirus (HPV) vaccine** (minimum age: 9 years)
- Routine and catch-up vaccination:**
- Routine vaccination for all adolescents at 11–12 years (can start at age 9 years) and through age 18 if not previously adequately vaccinated. Number of doses dependent on age at initial vaccination:
Age 9–14 years at initiation: 2-dose series at 0 and 6–12 months. Minimum interval: 5 months (repeat a dose given too soon at least 12 weeks after the invalid dose and at least 5 months after the 1st dose).
Age 15 years or older at initiation: 3-dose series at 0, 1–2, and 6 months. Minimum intervals: 4 weeks between 1st and 2nd dose; 12 weeks between 2nd and 3rd dose; 5 months between 1st and 3rd dose (repeat dose(s) given too soon at or after the minimum interval since the most recent dose).
 - Persons who have completed a valid series with any HPV vaccine do not need any additional doses.
- Special situations:**
- History of sexual abuse or assault: Begin series at age 9 years.
 - Immunocompromised* (including HIV) aged 9–26 years: 3-dose series at 0, 1–2, and 6 months.
 - Pregnancy: Vaccination not recommended, but there is no evidence the vaccine is harmful. No intervention is needed for women who inadvertently received a dose of HPV vaccine while pregnant. Delay remaining doses until after pregnancy. Pregnancy testing not needed before vaccination.
- *See MMWR, December 16, 2016;65(49):1405–1408, at www.cdc.gov/mmwr/volumes/65/wr/pdf/mm6549a5.pdf

ACETAMINOPHEN (TYLENOL®) DOSING

IMPORTANT: DO NOT USE ACETAMINOPHEN IN INFANTS UNDER 2 MONTHS OF AGE!

Tylenol® works well to reduce fever. It can be found as Children’s suspension (160mg/5ml). Children’s Chewable Tablets (80 mg), Junior Strength Chewable Tablets (160mg), and Junior Strength Caplets (160mg). Acetaminophen can be given every 4-6 hours as needed. Use the dosage closest to your child’s weight. Be sure to use the correct dosage for the form of medicine.

Recommended Dosing: 15mg/kg every 4 – 6 hours

Weight		Dose (15 mg/ kg)	Children’s Oral Suspension 160 mg/5 ml 160 mg/teaspoon <i>1 teaspoon = 5 ml</i>	Children’s Soft Chews Chewable Tablets 80mg each	Junior Strength Chewable Tablets 160 mg each
lb	kg	mg	Teaspoon	Tablet	Tablet
6 - 11	2.7 – 5.3	40			
12 – 17	5.4 – 8.1	80	½ (= 2.5 ml)		
18 – 23	8.2 – 10.8	120	¾ (= 3.75 ml)		
24 – 35	10.9 – 16.3	160	1 (= 5 ml)	2	
36 – 47	16.4 – 21.7	240	1 ½ (= 7.5 ml)	3	
48 – 59	21.8 – 27.2	320	2 (= 10 ml)	4	2
60 – 71	27.3 – 32.6	400	2 ½ (= 12.5 ml)	5	2.5
72 – 95	32.7 – 43.2	480	3 (= 15 ml)	6	3
> 95	> 43.2	640			4

IBUPROFEN (MOTRIN®) DOSING

IMPORTANT: DO NOT USE IBUPROFEN IN INFANTS UNDER 6 MONTHS OF AGE!

IBUPROFEN (MOTRIN®):

Ibuprofen is available for fever control and pain. Ibuprofen is more effective than acetaminophen for fevers over 102.5° F. Ibuprofen is dosed every 6-8 hours instead of every 4-6 hours like acetaminophen; however, it will be more irritating to your child's stomach than acetaminophen if he is nauseated or not eating well. Ibuprofen can be found as oral drops (50mg/1.25ml), suspension (100mg/5ml), or chewable tablets (100mg).

Recommended Dosing: 10 mg/kg every 6 – 8 hours

Ibuprofen/Motrin® Infant Concentrated Drops 50 mg/1.25 ml (dropperful)	Ibuprofen/Motrin® Children’s Oral Suspension 100 mg/ 5 ml (teaspoon)
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Note: The concentration of the drops is different from the oral suspension. Always use the measuring device supplied with the product.

Weight		Dose (10 mg/kg)	<u>Ibuprofen/Motrin® Infant Concentrated Drops</u> 50 mg/1.25 ml 50 mg/dropperful <i>note: 1 dropperful = 1.25 ml</i>		<u>Ibuprofen/ Motrin® Children’s Oral Suspension</u> 100 mg/5 ml 100 mg/teaspoon <i>note: 1 teaspoon = 5 ml</i>	
lb	kg	mg	ml	Dropperful	ml	tsp
12 – 17	5.4– 8.1	50	1.25	1	2.5	½
18 – 23	8.2-10.8	75	2	1 ½	3.75	¾
24 – 35	10.9–16.3	100	2.5	2	5	1
36 – 47	16.4 - 21.7	150			7.5	1 ½
48 – 59	21.8 – 27.2	200			10	2
60 – 71	27.3 – 32.6	250			12.5	2 ½
72 – 95	32.7 – 43.2	325			16.25	3 ¼

VOMITING AND DIARRHEA

Vomiting differs from spitting up in that it's a forceful emptying of most of the stomach contents. It is usually caused by a stomach virus that starts with vomiting (lasting 12-24 hours) and is followed by diarrhea (that can last for 5-7 days). Diarrhea is a sudden increase in the frequency and looseness of stools. If your child only has one or two loose stools in one day, or if your child is an infant with normally loose stools, no treatment is necessary since this is not "diarrhea."

It is important to prevent and watch for signs of dehydration whenever your child has vomiting or diarrhea. It's a good idea to keep some oral rehydration solution ("ORS" such as Pedialyte® or Enfalyte®) on hand for such occasions. The following guidelines can help you provide appropriate care at home and determine when to call the doctor. Don't hesitate to call if you have a question.

Formula-fed infants: offer ORS (oral rehydration solution such as Pedialyte® or Enfalyte®)

- For vomiting 1 or 2 times, offer half-strength formula for 2 feedings, then regular formula.
- For vomiting more than 2 times, switch to ORS (if none available, use formula) for 8 hours. Spoon or syringe-feed 1-2 teaspoons (5-10 ml.) every 5 minutes. After 4 hours without vomiting, double the amount. After 8 hours without vomiting, return to regular formula. If older than 6 months, resume solid foods as well.
- For frequent, watery diarrhea, switch to ORS for 4-6 hours, offering unlimited amounts. Formula is fine for average diarrhea. Avoid sports drinks (inadequate sodium content) and all fruit juices and soft drinks (they make diarrhea worse). Switch back to formula by 6 hours at the latest and offer it more frequently than usual and in unlimited amounts. Also, offer 2-4 ounces of ORS after every large, watery stool. If older than 6 months, continue solid foods. Your child needs the calories that formula and solid foods provide.
- When your baby has diarrhea, he might not be able to tolerate cow's milk formula. Your doctor might recommend a reduced-lactose formula (such as Gentlease®).

Breast-fed infants: reduce the amount per feeding (shorter, more frequent feedings)

- For vomiting 2 times, nurse on 1 side every 1-2 hours
- For vomiting more than 2 times, nurse for 4-5 minutes every 30-60 minutes.
- If vomiting continues, switch to Pedialyte® or Enfalyte® for 4 hours. Spoon or syringe feed 1-2 teaspoons (5-10 ml.) every 5 minutes. After 4 hours on ORS, resume breast-feeding for 5 minutes on the breast every 30 minutes.
- After 4 hours without vomiting, return to a regular schedule. If older than 6 months, resume solid foods after 8 hours without vomiting.
- For frequent, watery diarrhea, continue breastfeeding at more frequent intervals and continue solid foods if older than 6 months. Also, offer 2-4 ounces of ORS after each large watery stool.

Older children (over 1 year old): give frequent, small amounts of clear liquids for 8 hours

- For vomiting (only), offer water or ice chips: 1 tablespoon (15 ml.) every 5 minutes. Plain water is absorbed directly across the stomach wall, so it's preferred if your child has vomiting without diarrhea. For vomiting with diarrhea, your child needs ORS instead. If your child refuses ORS, try flat half-strength lemon-lime soda, popsicles or ORS popsicles.
- After 4 hours without vomiting, double the amount.
- After 8 hours without vomiting, add solid foods. The American Academy of Pediatrics no longer recommends the bland, high-carbohydrate BRAT diet (Bananas, Rice, Applesauce & Toast) that you might be familiar with. Your child needs the calories that his normal diet provides (avoiding spicy foods).
- For frequent watery diarrhea, offer unlimited fluids, such as Enfalyte® or Pedialyte®. Avoid all fruit juices and soft drinks (they make diarrhea worse). Continue solid foods. If refusing solids, offer milk or formula.
- Do not give your child over-the-counter diarrhea medicines such as Imodium AD®, Pepto-Bismol® or Kaopectate® unless recommended by your doctor.

Your child needs to see a doctor if:

- Signs of dehydration, such as no urine for more than 12 hours, a very dry mouth, no tears, or a delayed "capillary refill" time. To check the capillary refill time, press the skin on your child's arm or leg with your finger to "blanch" it for about two seconds, then count how many seconds it takes for the skin to return to its normal color. A normal capillary refill time is less than 2 seconds.
- Under 12 weeks of age and vomits 2 or more times (especially if "projectile" or bile-colored)
- Under 12 weeks of age with rectal temperature of 100.4° F or above
- Age 3 months to 2 years and vomiting persists more than 24 hours without diarrhea
- Vomits everything for more than 8 hours
- Blood in the vomit (red or "coffee grounds")
- Under 12 weeks of age with bile in the vomit (yellow, green or orange color)
- Fever over 103° F with vomiting or diarrhea
- Continuous crying or abdominal pain for more than 2 hours
- Attacks of severe crying that suddenly switch to 2-10 minute periods of quiet (usually under 3 years of age)
- Blood, mucus or pus in the stool
- Under 1 year of age with more than 8 diarrhea stools in the last 8 hours
- Diarrhea persists more than 7 days
- Your child becomes very weak or is difficult to awaken
- You have any concern or want your child to be seen

THE COMMON COLD

A “cold” is the word we use to describe congestion in the nose and sinus areas caused by a virus. There are many viruses that cause “colds,” and they are all contagious. Most colds occur in the winter because people are in closer contact indoors and can spread the virus more easily. Colds have nothing to do with how cold it is outside. Many parents notice their children getting viral upper respiratory infections (a more specific term for “cold”) as soon as they are around other children, such as in day care or preschool. The average preschool child will get 6 to 10 viral illnesses each year.

Symptoms of a cold: A cold might cause a fever that lasts 24-48 hours and a runny nose that lasts for a week or two. At first, the nasal drainage will be clear. After a few days, it will change from clear to yellowish-green and sometimes back to clear. This is because the constant drainage irritates the lining of the nose and causes microscopic bleeding. The tiny blood cells break down and turn yellow and green, just as a bruise turns color. Do not let this normal color change worry you. A cough is the last symptom to develop with a cold and the last to disappear.

Many parents worry about their child’s cough because it sounds like it is “coming from chest”; however, the cough is good because it prevents mucus in the throat from going into the lungs. Because your child’s chest wall is thin, the large airways (windpipe and bronchi) project the sound of the cough like a megaphone, so that it sounds and feels loud and like it is coming from the lungs. A cold also causes postnasal drainage down the back of the throat. This often causes a sore throat and can also be the cause of a cough. Your child might experience muscle aches and fatigue, and some children become cranky or clingy. Your child might not sleep well at night because the congestion will wake him up. Other children might sleep more than usual. Your child might not feel like eating because he feels too bad or it hurts to swallow. Do not be concerned if your child does not eat very much when she has a cold. Her appetite will come back later.

Treatment of a cold: A cold is caused by a virus. Antibiotics do not cure viral infections. We don’t have medications that can cure a cold virus. We can only treat the symptoms. Even if you do nothing, the cold will go away on its own; therefore, if your child is comfortable, we recommend no treatment. If your child is uncomfortable, you may try the following symptomatic remedies:

- Saline nose drops and bulb suction: Suction the child’s nose with a bulb syringe just before eating and sleeping. Saline drops will loosen the mucus and make suctioning easier. You can use them as often as necessary since they are non-medicated (the same formula as tears).
- Cool mist humidifier: Use at night to moisten the air and reduce coughing. Use only distilled water in the humidifier; and, dump it out every morning. Allow humidifier to air dry during the day so that it doesn’t grow bacteria, mold and other undesirable organisms.
- Little Noses decongestant nose drops may be used at bedtime to help dry up the nose if congestion causes frequent awakening. We do not recommend using them in the daytime or for more than 3 days because using these drops repeatedly can actually make the nose more stopped up (called “rebound congestion”)

- Elevate the head of the bed. To help decrease coughing at night, raise the crib mattress up a few notches on one end or put large stable blocks under the front legs of the bed. Elevating the head keeps the postnasal drainage from pooling in the back of the throat.
- Acetaminophen (Tylenol) for fever over 101 or general discomfort if over 2 months of age.

You need to call the office for an appointment if:

- The fever is not going down or gone in 48 hours
- The fever goes away and comes back again a few days later
- Your child's symptoms get worse instead of gradually getting better
- Your child develops more symptoms or seems very ill
- Your child is less than 2 years old with a temperature of 102.5° F or higher (make an appointment)

EARACHE

An earache can be associated with an irritation of the external ear canal (swimmer's ear) or a middle ear infection (otitis media). Frequently children will develop a middle ear infection in association with a viral upper respiratory infection. This is caused by an accumulation of pus in the middle ear behind the eardrum. Ear infections usually occur 10-14 days after your child has a cold. This can cause severe pain in the ear and generalized discomfort. We feel that whenever a child has an earache, he should be seen by a physician and treated appropriately. It is difficult to accurately diagnose an ear infection over the phone. Our office policy is to NOT call out antibiotic prescriptions over the phone.

If your child develops ear pain at night, try managing his pain with acetaminophen or ibuprofen until morning. The doctor on call can also call out a prescription for numbing ear drops to help ease the pain. **IMPORTANT--Do not use numbing ear drops if your child has PE tubes in the ears or if he has yellow or bloody drainage from the ear.** If you use ear drops, be sure to call the office the next day for further treatment even if the pain is better. Signs and symptoms of a middle ear infection could include fever, a decrease in appetite, fussiness, and/or frequent waking periods at night.

SORE THROAT

Most sore throats are caused by viruses and are not treated with antibiotics. Some sore throats, however, are caused by a bacterium called streptococcus. This typically causes swollen tonsils, fever, and swollen glands under the jaw. It is impossible to tell the difference between a viral or bacterial cause of a sore throat; therefore, it is necessary to diagnose strep throat in the office with a rapid strep test or throat culture.

Strep throat is treated with antibiotics and needs to be initiated within 10 days of the onset of symptoms. It is extremely important to complete a **FULL COURSE** of antibiotics in order to clear up the strep infection and to prevent complications such as rheumatic heart disease. On occasion strep throat causes a red, sand-papery rash.

CAR SEATS

Accidents in general and car accidents in particular are a major cause of death and injury in childhood. Therefore, always keep your baby properly restrained in an approved infant car seat. You can obtain information on approved car seats from the following sources:

- Safe Rider's Program: 1-800-252-8255
- Safe Kids Coalition: <http://www.injuryfree.org/> or 512-324-0000.
- The American Academy of Pediatrics: <http://www.aap.org/family/carseatguide.htm>.

Install the car seat according to the manufacturer's instructions. Not all car seats are installed the same way! Be sure to have your car seat installation inspected. The Austin Safe Kids Coalition "Car Seat Calendar" is located on the Dell Children's Medical Center website (below). Find a convenient date and location and call to schedule your inspection. http://www.dellchildrens.net/services_and_programs/safety_and_injury_prevention/

All children age 12 and under should sit properly restrained in the back seat of the car. Air bags can cause serious injury to children in the front seat. NEVER place a child in the front seat with an active airbag.

Infants need to be in rear-facing safety seats until they are two years of age or until they reach the maximum height and weight for the seat. At this age, the safety seat should be positionally reclined so that the infant's head cannot flop forward. If the vehicle seat slopes and causes this to happen, the safety seat should be reclined back. A firm roll of cloth can be wedged below the foot end of the car seat to achieve the proper angle - a 45-degree tilt. The shoulder straps must be in the lowest slot until the infant's shoulders are above the slot. If a blanket will be needed to keep your child warm, place the unbundled baby in the car seat, fasten the harness, and then tuck the blanket over the baby. Never strap in a bundled baby. Read the child safety seat instructions carefully. **Always adjust the harness to fit snugly (until only two of your fingers will fit between it and your baby); always fasten the chest clip; and always position the clip across your child's chest (at the "nipple line"), not over the abdomen or near the neck.**

Children who are 20 pounds and at least one year old should use a semi-upright forward-facing convertible car seat until the seat no longer fits well. The 5-point harness car seats are safest and available for children who weigh up to 65 lbs. and more. The child's ears should be below the top of the back of the seat, and the shoulders should be below the seat strap slots.

When children outgrow forward-facing convertible seats, they need to be restrained in belt- positioning booster seats until they are big enough to fit properly in an adult seat belt. This includes children from 40 to 80 pounds and about 4' 9" tall. A child who cannot sit with his back straight against the vehicle back seat cushion with knees bent over the seat edge without slouching is not big enough for an adult seatbelt. On a small child, the adult lap belt rides up over the stomach, and the shoulder belt cuts across the neck. In a crash, this can cause serious injury or even death. Child booster seats lift children so that the lap and shoulder belts can be positioned correctly and safely. NEVER allow your child to slip the shoulder belt behind her back; the lap and shoulder belt combination is designed to distribute the impact of a crash with the least potential harm to your child. Failure to use them together can also result in serious injury or death.

HOME FIRST AID KIT

We recommend the following items for your home first aid kit. Store in a safe place where children do not have access.

Thermometer (digital, rectal)

Acetaminophen (Tylenol®)

Ibuprofen (Motrin®)

Neosporin® or Bacitracin® antibacterial ointment

Benadryl® elixir

A&D Ointment®, Desitin® or Dr. Smith's® diaper ointment

Band-Aids

Tape (½-1" wide)

Gauze squares 4" x 4"

Hydrogen peroxide

Scissors

Tweezers

Ace bandage (2" or 4" wide)

Rubbing alcohol

Auralgan® ear drops (by prescription if your child has a history of ear infections)

Normal saline nose drops and bulb syringe

Pedialyte® or Enfalyte®

Notes: