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PEDIATRIC AND ADOLESCENT CARE

OFFICE HOURS
by appointment only

9:00 AM - 5:00 PM Monday through Friday

Phone lines open at 8:00 AM

Special hours are offered on **weekdays after 5:00 PM** and **Saturday mornings** based on the needs of sick and injured patients. There is an additional charge for services during these special hours.

Evening appointments are scheduled on a same day basis according to need. Saturday appointments are scheduled beginning at 8:30 AM the same day.

Sundays and holidays the office is closed.

**If you have an emergency or an urgent problem
outside of office hours,**

call 747-7544.

**Relay your concern to the answering service
and we will return your call.**

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I. GENERAL INFORMATION

This manual introduces our office routine and answers many commonly asked questions. It also provides valuable information regarding management of common illnesses. Section VI outlines recommended check-up times, immunizations, and routine lab work. Please place your Owner's Manual in a safe place where you can find it when a concern or an emergency arises. In designing the Owner's Manual, we hoped to anticipate many of the questions that may arise, saving you the inconvenience of an unnecessary visit and/or phone call.

In addition to this manual, you will receive information sheets at each of your child's check-ups. Those materials will provide more in-depth information about growth and development specific to your child's age.

A Group Practice

We are pleased that you have chosen us as your pediatricians. We would like to take this opportunity to explain to you the advantages of our pediatric group practice.

Many parents feel most comfortable selecting just one P.A.C. provider to care for their child. The longitudinal relationship that develops between patients and providers is both medically beneficial and emotionally rewarding. Others rotate visits with two or more of our pediatricians. There is some advantage in this as your child can become familiar with several of us. In an emergency situation she will not have to see a stranger. When problems occur, it is best that one of us take primary responsibility for your child's situation. Too many cooks can spoil the soup.

Because difficult or unusual cases are often discussed amongst our doctors, your child's care benefits from the expertise of more than one doctor. Think of it as a built in second opinion.

Feel free to choose any of the doctors or nurse practitioners available at the time you call to make your appointment.

Group coverage also insures that regardless of night, weekend, or vacation schedules, a P.A.C. physician is available to you at all times. There are occasions, of course, when an urgent condition is best handled by an emergency room physician, but we are always happy to coordinate that care.

Telephone Calls During Office Hours

You will notice a magnet with our telephone number attached to the inside cover of your manual. Attach it to your refrigerator, or anywhere you'll easily find it. Our nurses are highly trained to answer many of your questions. Expect P.A.C. nurses to respond to your questions and concerns with even more questions. It is their job to fully understand your situation before providing advice. Moreover, P.A.C. nurses have the ability to schedule appointments of varying duration. Your child may need only a short appointment, which is usually available sooner; but if your concerns are more involved, the nurse should schedule more time. Please work with our nurses so that they might optimize your child's visit. Nurses begin taking calls at 8:00AM Monday through Friday and 8:30AM on Saturday. At times it may be helpful for a pediatrician to return your call. In general, we return these calls over lunch and after office hours. Naturally, urgent calls will be answered as soon as possible. Please place all non-emergency calls during office hours when we have access to your records. Be sure to give the responsible party's name when calling as this is how your child's information is filed.

Appointments

Regular office hours are from 9:00-5:00 Monday through Friday. We are also available to see sick children on Saturdays. An appointment is required. There is an additional charge for office visits on Saturdays and after 5:00 PM weekdays. Appointments are for your benefit. They minimize your waiting time. If more than one child is to be seen, please set up an appointment for each child. Although emergencies do not require an appointment, calling ahead allows us to prepare for your arrival and optimize care. We ask that you notify the office as soon as possible if you are unable to keep an appointment. Twenty-four hour notice is appreciated as it allows the time to be used to meet the needs of other patients. Missed appointments hinder your child's health care as well as others'. Frequent no-show offenses may jeopardize your relationship with our practice.

What Happens When My Child Gets Sick At Night?

If you have *an emergency that cannot wait until regular office hours*, call 747-7544. After hours, calls are transferred to our answering service. If you don't hear from us in half an hour, please call back. Messages are sometimes relayed incorrectly. If desired, you can leave a message on our voice mail. Messages are reviewed the morning of the next office day.

Emergencies

Should an emergency arise during office hours please call us directly. After office hours, contact us through the answering service as above. Tell the operator that you have an emergency. Your call will be handled immediately.

If time permits it is best to call us before rushing your child to an emergency room or minor emergency center. We can then advise you on the best course of action and arrange to see your child if necessary.

Prescriptions

Requests for routine medication and refills on prescriptions should be made during office hours when we have access to your records. It is helpful for you to know the name and number of your pharmacy so we can call in the prescription. Routine, non-emergency prescriptions will not be refilled after office hours.

Charges for Services Rendered and Payment Policy

All fees for services rendered are due at the time of service.

There are a variety of health insurance plans (PPO's HMO's, etc.) available. We participate with some of these; a current list of plans is available in our business office. Most plans require that we submit office claims directly. We file claims for all hospitalizations. Many plans require patients (or their parents) to make a co-payment at the time of the visit.

Please remember that health insurance contracts are made between the insurance company and the insured, and it is your responsibility to see that claims are filed. With "traditional insurance" you can file claims for office visits by attaching the encounter form summary to your standard insurance form.

It is now more important than ever for you to fully understand your insurance agreement. Failure to comply with the contract requirements can result in penalties to you in the form of reduced or disallowed benefits. Our business office meets with the parents of all newborns at the two week check up to clarify the terms of the insurance policy. Please do not hesitate to contact our business office at any time with concerns about your account or insurance coverage.

II. YOUR NEWBORN BABY

In the hospital, a pediatrician from our group will evaluate your baby each morning. We will stop by your room daily to update you and address your concerns. The following topics may be of interest to you.

Birthmarks

Many types of birthmarks are seen in infants at birth or during the early months of life. The cause is usually unknown. Most birthmarks fall into the following classes:

- 1) A flat, red type which occurs at the nape of the neck, (up in the hair line), and across the nasal bridge and eyelids. They gradually fade away, usually by the time the child is six months of age.
- 2) So called "strawberry birthmarks" are raised and soft. These blood vessel filled lesions grow, sometimes rapidly, for about a year then fade gradually, disappearing by about six years of age.
- 3) Darker pigmented individuals often have bruise-like birthmarks over the lower back and buttocks. These fade over the first years of life.

The great majority of these birthmarks will fade spontaneously and do not require surgical or laser treatment. Do not hesitate to bring birthmarks to our attention so that we can evaluate and discuss.

Bowel Movements

The stools of a newborn are normally yellow or even green. Breast fed infants' stools are often loose. Formula babies' stools are more pasty or formed, and may depend on the type of formula. It is not unusual for a baby to push, strain, draw his legs up, cry and become red in the face when he has a bowel movement. Bowel movements may occur as frequently as once each feeding or as infrequently as every third day. Breast milk promotes more frequent stools and formula less frequent. Loose stools that appear bloody or mucousy should arouse concern, as should large, hard or painful stools that occur less than every other day. If infrequent stools cause the baby discomfort, you may use an infant glycerin suppository or liquid glycerin baby lax every other day. Hard stools may be alleviated by giving one-half ounce of prune juice and one-half ounce water daily. If you have concerns about your baby's bowel habits, please give us a call during office hours when we have access to your records.

Breast Enlargement

Frequently, a newborn's breasts enlarge after birth and occasionally produce a little milk. This is caused by the mother's hormones and will subside without special treatment.

Breathing Sounds

Babies normally breathe through their noses for the first few months. The breathing is often quite loud and may sound like a cold. This is caused by turbulent airflow through the small nasal passage and is normal. If your baby has fever, fussiness or nasal discharge, please call our office.

Circumcision

Vaseline should be placed over the healing surface with each diaper change for the first week home from the hospital. Avoid immersing the penis in bath water until the circumcision heals. If a plastic ring (Plastibell) has been used, it will stay attached for five to eight days following circumcision. No special dressing is required and the baby can be bathed as soon as the ring and the umbilical cord fall off.

With either type of circumcision, notify us if you observe any unusual redness or swelling, or if the plastic ring is not off within ten to twelve days. After the healing is completed, you may prevent the formation of attachments between the shaft and the head of the penis by gently pulling the foreskin back from the ridge once daily.

Cord

The cord has been securely clamped and treated with an antiseptic to prevent infection. We will inspect it daily and the clamp will be removed prior to discharge. Once daily treatment with rubbing alcohol will help to dry out the cord and suppress bacterial growth. Avoid immersing the cord in bath water.

Eyes

Most babies' eyes are puffy and swollen during the first few days of life. Your baby may not open its eyes well at first. The puffiness should disappear within several days. Eyes will appear yellow if jaundice develops.

Fathers

We encourage fathers to take an active part in the care of their new baby. The more you participate, the more important role you will enjoy in the life of your child.

Female Genital Area

Gently separate the vaginal labial folds when washing a baby girl. A little secretion and even bleeding may be noted in the first weeks. This is a quickly passing effect of mother's hormones and is no cause for concern.

Hiccups

Hiccups are common during the first few months. They are not caused by improper feeding and they do not cause the baby any discomfort.

Jaundice

Approximately one third of newborns develop noticeable yellowness, or jaundice, of their eyes and skin in the first days of life. Jaundice is caused by excess bilirubin, a yellow pigment normally produced by the body as it recycles old red blood cells. Jaundice is harmless for most infants, but will occasionally cause problems when severe. Dangerous levels of bilirubin may be associated with poor feeding, dehydration, mother/baby blood group incompatibility and infection. Eating, stooling and sunlight will all help to diminish jaundice. Our providers carefully monitor jaundice and bilirubin levels by examination, photometric skin measurements and blood testing. In severe cases, we may employ intravenous fluids and artificial lights (phototherapy) to keep bilirubin at safe levels.

Molding of the Head

The process of birth often causes the baby's head to be misshapen. This will correct itself without treatment within a few days.

Skin

The baby's skin may be red, peeling and rashy. This is normal. It is safe and soothing to apply a mild lotion or cream but this provides little benefit. Hands and feet are often blue during the first few days of life. See "Birthmarks", below.

Sneezing

Newborns normally sneeze. If there is no nasal drainage or difficulty breathing, do not be concerned.

Weight

Most babies lose 5 to 10% of their birth weight during the first days of life. At birth, a baby's body contains an excess of water which is lost as urine. Should weight loss be excessive, we will adjust the feeding plan accordingly.

III. FEEDING YOUR BABY

Your first step is to decide whether to breast or bottle feed, which you'll probably settle prior to delivery. In general, breast feeding is the most nutritious, economical and ecological way to feed your infant. We have trained lactation educators on staff to assist you in nursing your child. However, there are many factors that influence your feeding decision, and breast feeding is not right for everyone. The feeding experience should be an enjoyable one for both the baby and mother. If you have questions concerning this decision feel free to ask us.

We recommend a semi-demand feeding schedule. A rigid schedule of every three hours may not suit your baby. Breast babies should be fed every 1.5 to 2.5 hours during the day, at least until your milk is in and the baby is gaining weight. Bottle fed babies do well with every two and a half to three and a half hours. If your baby sleeps a little longer at night, leave well enough alone.

Breast Feeding

If you plan to breast feed your infant, the following instructions may be of help to you. You will have very little milk supply until the baby is three or four days old. Frequent, short feedings are better than infrequent, lengthy feedings. Gradually increase the amount of time until you reach a maximum of fifteen minutes on each breast.

You should be in a comfortable position with your back and arms supported. A nursing pillow on your lap serves as a convenient platform for the baby. Your baby should be in a semi-upright position so his head is higher than his stomach. With one arm, hold the baby so his face is close to the breast. With the other hand, hold the breast between your index and middle fingers so it is easy for the baby to reach the nipple without it covering his nose. Bend your arm to form a cradle so the baby's head is always supported, making it easy for him to reach the breast. Touch the side of his face close to his mouth to the breast. He will turn his head and begin nursing.

Once your milk is well established, be sure your first breast is completely emptied before changing sides (approximately fifteen minutes). At the next feeding, start with the breast that was not completely emptied at the previous feeding. Your milk supply is stimulated by demand. A completely emptied breast will increase production for the next feed. At times, the baby may get slightly less than she would like, but your milk production will quickly increase to supply her needs. After feeding, let your nipples air dry. If they

are tender or cracked, apply lanolin cream. It is **not** necessary to clean off the cream before feeding again.

After the second week you may give your baby one bottle of formula or breast milk each day if you so desire. If you wait too long to introduce the bottle, (over a month), babies are often very resistant. Evening, when Dad is available, is a good time to try this — an excellent bonding opportunity!

For successful breast feeding, it is essential to get plenty of rest, drink lots of fluid and eat a balanced diet. Any food, including chocolate, may be eaten in moderation. Mothers should continue their prenatal vitamins while breast feeding. You may call our office with your breast feeding questions. Dortha Vaughn, R.N. and Angela Llewellyn, R.N. have advanced training in breast feeding education and are here to assist you.

Bottle Feeding

Start with a cow milk based, iron fortified formula. Many store and name brands are available. DHA-ARA supplemented formulas may be helpful for certain babies. Formula can be purchased in powdered, liquid concentrate and ready-to-use varieties. Premixed ready to use formula is, as the name implies, easiest. Powder is cheaper, easier to carry (weighs less) and requires no refrigeration. Liquid concentrate has no significant advantage. Prepare powdered formula with tap water. It is the cheapest, easiest and safest way. Sterilizing water for formula is necessary only if it is untreated, such as well water.

Many varieties of bottle are available, and most infants are not too finicky. Avoid the temptation to accumulate a war chest of a single type of bottle. If your baby can't/won't use that variety, your collection may be useless.

Babies generally prefer lukewarm (body temperature) formula. Avoid warming bottles in the microwave as hot spots in the formula may cause serious burns in your baby's mouth and throat.

For the first two days of life, your baby won't be interested in eating large quantities. One half ounce will suffice at first. Gradually, appetite will increase to 2 oz. each feeding. The exact amount may vary from baby to baby and from feed to feed. Babies are very good at taking as much as they need as long as we offer them enough but don't push. The best way to insure that the baby is getting enough at each feeding is to allow for a little extra milk to be left in each bottle. When your baby is emptying the bottle each time, it is time to increase the amount of formula offered.

Your baby will get enough fluid in formula. Additional water is not necessary even during hot weather.

Washing bottles and nipples in hot soapy water or in the dishwasher is more than adequate. Boiling bottles and nipples is not generally necessary.

Burping

All babies swallow air while feeding and should be burped once or twice during the feed and again when complete. To burp your baby, hold him upright over your shoulder and pat his back gently. If the burp doesn't come up easily, it sometimes helps to put him on his back for a few seconds and then bring him up to your shoulder. You can also try placing your baby in an upright sitting position, supporting his chest, neck and head. Some babies do not burp well. If after five minutes your baby does not burp, he may be placed in the crib on his left side.

IV. TAKING YOUR BABY HOME

When it is time to take your baby home, the following topics will aid you and your baby in making the transition.

Visitors

We realize you are eager to show off your new baby. However, people often carry infections unknowingly and may unintentionally transmit illness to your baby. We recommend that you carefully screen visitors for the first two months, and require everyone who will hold your baby to wash their hands. Avoid passing your baby around, particularly at large gatherings. Friends and family may be unhappy with you, but they are unlikely to be up all night with you when your baby falls ill. Better safe than sorry.

Clothing and Bed Covering

The baby's clothing should be light, loose and simple. Most babies are overdressed; they require no more clothes than adults. The room temperature should be maintained at 68 to 72 degrees. The room should not be too dry, and should be well ventilated with an even temperature day and night. Keep the baby dressed in diaper, shirt and gown except in hot weather when the gown may not be needed. Use a lightweight cotton blanket at night. The bassinet pad should be firm, not soft, and you should not use any pillows or bumper pads. The bassinet or crib mattress should fit snugly against the sides.

Fresh Air and Sunshine

If the weather is pleasant, your baby may be taken outdoors. In fact, you are less likely to encounter germs outside than in crowded indoor venues. Your baby should avoid direct sun exposure for extended periods of time.

Diapers and Cream

Most people use disposable diapers and many different brands are acceptable. There is a wide array of prices. Try starting with an inexpensive brand and work your way up as you see necessary

The best treatment for diaper rash is prevention. We recommend prompt diaper changes, gentle cleansing and thorough drying of the diaper area. You may apply a diaper cream after cleaning, but this is generally unnecessary unless rash is present. There are many types of diaper creams, no particular brand is superior.

Bathing

Your baby's dirtiest parts end up being cleaned many times each day. Two or three baths a week will suffice until your child can crawl (on the floor) and eat (wear) solid foods. Sponge baths should be given until the the umbilical cord falls off and the circumcision has healed. Tub baths may be given in a small tub or kitchen sink. Water should be lukewarm (about body temperature). Support your baby's head with one hand and wash the face using a soft wash cloth without soap. For the body you may use a mild bath soap or baby shampoo. The scalp needs washing only once or twice a week. After the bath, baby lotion may be used if desired. Baby oil is not ordinarily needed. Use the corner of a washcloth to clean around the nostrils and the ears. Never push a cotton swab in the the nose or ears.

Sleeping

To minimize the risk of sudden infant death syndrome (SIDS) we recommend that all infants be **positioned on their back every time** they are put down to sleep. Side positioning is barely more safe than tummy positioning and is not recommended. Sleep positioners have **no** proven benefit and may actually make your baby less safe. **When your baby is awake, stomach positioning is safe and will help with head and neck development.**

Babies have a wide range of sleep needs, 12 to 20 hours a day. Initially their sleep is broken into fairly equal segments distributed over the whole 24 hour period. Do not expect that your baby will sleep from 8 PM to 8 AM when he is 2 weeks old. Only half of all babies sleep for 6 hours straight at 6 weeks of age. It takes some time for a baby to appreciate our habit of sleeping more at night than in the day.

Patterns and habits take time to change. Feeding cereal at night or trying to tire your baby out before bedtime have little effect on changing patterns. The easiest course initially is to work with the baby's innate sleep pattern. Take naps during the day when your baby is asleep. Frequent (every 2 hour) daytime feeds are a good way to reinforce daytime wakefulness, and eventually night time sleepiness. When your baby awakens for overnight feeds, make it a business session. Turn on just enough light to find, change, feed and put him back to bed. Save your social interaction for the daylight hours. This is the way that you inform your baby of the sleep pattern that you would prefer.

It is a good idea to put the baby to bed when they are awake so they can learn how to fall asleep. There is nothing wrong with rocking your baby. However, *rocking your baby to sleep* sets up a pattern that may lead to difficulties down the road. If these suggestions are not working or if you are becoming frustrated let us know.

Automobile Safety

More children are injured and killed in car crashes than in any other type of accident. Proper use of car seats and seat belts will prevent many of these tragedies.

Children who are less than twenty pounds and/or less than one year of age should be placed rear facing in either infant-only or convertible seats. Infant-only car seats have the advantage of portability (smaller size and convenient handle), but usually cannot be used beyond one year. They have height and weight restrictions which may further shorten their use. Convertible seats are less portable but can fit children up to twenty pounds (rear facing) and forty pounds (front facing). Forward facing car seats are only for children greater than one year AND twenty pounds.

No car seat is safe if not properly installed. With all models, you are strongly urged to read (and save) your car seat instructions, in addition to the car owners manual. This will insure proper installation and continuing adjustment as your child grows. Local organizations, such as the Safe Kids Coalition, hold regular events where parents can have their seat and installation inspected.

The recommended graduation size for car seats and boosters is 80 lbs and 4' 9" tall. For most children, this occurs between 8 and 12 years. We will continue to advise you on car safety as your baby grows.

V. COLIC AND CRYING IN YOUNG INFANTS

Crying is present to some degree in all babies during the first few months of life. When crying is mild, occasional and has an identifiable cause, there is generally little concern. Hunger, a soiled or wet diaper, desire to be held or need to burp are all easily correctable causes of crying.

However, inconsolable crying that occurs daily (or nightly) for hours at a time can be more distressing. This more unsettling type of crying behavior is referred to as colic, and occurs in 10 to 20% of infants. Colic generally begins between the second and fourth week of life, reaches peak intensity at six weeks of life and finally resolves at ten to twelve weeks of life. The infant with colic may turn red, draw up the legs, pass gas and appear to have a painful belly.

The cause or causes of colic are very poorly understood despite much medical study. Traditionally, colic has been thought to represent abdominal pain resulting from either swallowed air or gas formation in the bowels. Attempts at proving and eliminating these underlying causes have been generally disappointing. Newer theories blame colic's discontent on sensory over stimulation or immature stress management mechanisms. The exact cause (or causes) of colic remains to be fully explained.

Sometimes a few simple measures can relieve your baby's colic. In other instances repeated trials of various techniques may be necessary to obtain any relief. In addition to routine feeding, changing, and holding your baby, the following remedies may provide some relief for colic.

1. Gentle, repetitive motions are often soothing to colicky infants. Try walking, rocking, swinging, bouncy seats or car rides. Prone positioning, (on the stomach), can be tried, but only when the baby is awake. Pacifiers may be soothing to some infants, and will NOT harm established breast feeding. Snug swaddling, provided it is not too tight, may help. Don't worry about spoiling your baby the first three months. Comforting makes your baby feel better and will do the same for you.
2. Calm the overall environment. Dimming lights, quieting appliances, and limiting visitors will help babies and parents alike feel more at ease.
3. Make sure your baby is getting the right amount to eat. Either excess or insufficient intake may make a baby fussy. Consider your feeding technique. Feeding should take 15-30 minutes. Shorter times may indicate the need for a faster flow nipple or more frequent burping. Longer feeds may result from too slow a bottle nipple, or a bottle cap screwed on too tightly. Prop your baby up during and after feeding to

minimize heartburn and spitting. Don't overheat formula; it should be given at body temperature.

4. Occasionally, protein or milk sugar intolerance can cause symptoms of colic. We may recommend changes in the nursing mother's diet or changes in formula if this is suspected.
5. Many parents try giving simethicone (Mylicon) to alleviate colic. Despite tradition and anecdotal (testimonial) evidence, there is **no** scientific evidence to support its benefit.
6. Give yourselves a break. Allow a sitter to take over while you enjoy an evening out.

VI. CHECK-UP & IMMUNIZATION SCHEDULE

The best way to maintain your child's health is through periodic medical examinations or well child care. Regularly scheduled check-ups are the key to early detection and treatment of developmental and growth disorders. These visits are a good time to ask questions that you may have concerning your child's health, behavior, or school performance. We may not be able to solve all your child's problems at one visit, but it is a good place to start. In addition, we'll complete the necessary immunizations and lab tests. Regular checkups can minimize the need for last minute school, sport and summer camp examinations.

Please remember that one of us is always available to see your child if he or she is ill and needs our attention. We feel it desirable to schedule SICK visits separate from CHECK-UPS whenever possible. Guidelines for preventive care are listed below. All immunizations are thimerosal free.

Check Up Schedule

AGE	EVALUATIONS	IMMUNIZATIONS	LAB
2 wk	growth,development,exam		
2 mo	growth,development,exam	Pediarix,Pneumo,Hib,Rota	
4 mo	growth,development,exam	Pediarix,Pneumo,Hib,Rota	
6 mo	growth,development,exam	Pediarix,Pneumo,Hib,Rota	
9 mo	growth,development,exam		CBC
12 mo	growth,development,exam Pb & TB risk assess	MMR, Varicella, Hep A	
15 mo	growth,development,exam	Hib, Pneumo, DTaP	
18 mo	growth,development,exam social development screen	Hep A	
2 yr	growth,development,exam Pb & TB risk assess		
3yr	growth,development,exam		
4yr	growth,development,exam	MMR, Varicella,DTaP,IPV	
5 yr	growth,development,exam TB & Cholesterol risk assess		UA
7 yr	growth,development,exam		
9yr	growth,development,exam		
11 yr	growth,development,exam	Tdap,HPV,Meningococcus	
13 yr	growth,development,exam		CBC(female),UA
15 yr	growth,development,exam ¹⁷		CBC(female),UA
17 yr	growth,development,exam		CBC(female),UA
19 yr	growth,development,exam		CBC(female),UA

Many schools, camps and athletic organizations require annual exams for school age participants. We are happy to schedule as needed.

Abbreviations:

CBC	Complete blood count
DTaP	Diphtheria, Tetanus, acellular Pertussis
Hep A	Hepatitis A
Hep B	Hepatitis B
Hib	Haemophilus influenzae Type b
HPV	Human Papilloma Virus (Gardasil)
IPV	Inactivated Polio Vaccine
MMR	Measles, Mumps and Rubella
Pb	lead
Pediarix	Combined DTaP-IPV-Hep B
Pneumo	Streptococcus Pneumoniae Vaccine
Rota	Rotavirus (oral vaccine)
TB	tuberculosis
Tdap	Tetanus, Diphtheria, pertussis booster
UA	Urinalysis
Varicella	Chickenpox (Varivax)

VII. CONSTIPATION

Among infants and children there is considerable variability in the number of stools per day. Newborn breast fed infants can have six to eight loose stools per day while formula fed infants may pass one formed stool every two or three days. Both patterns are entirely normal. Straining, grunting and turning red in the face are part of the normal physiologic process involved in passing stool. Only when stools are extraordinarily hard or infrequent is there cause for concern. Occasionally, when the stools are very firm, streaks of blood will be noticed on the outside of the stool. Bleeding is caused by a tiny tear in the lining of the anal canal. This is called an anal fissure and is nothing to worry about, unless the bleeding persists.

Bear in mind that most infants will experience a dramatic slow down in their frequency of stools at two months of age and whenever formula is introduced (previously breast fed). This change is harmless and should not arouse concern.

Management of constipation is often directed towards softening the stools, either through dietary changes or specific softening agents. Decreasing intake of milk, a frequently constipating food, increasing fruit intake (especially prunes, pears and peaches), or using bran cereal may be of benefit. For infants we usually recommend adding either prune juice or dark Karo syrup to the formula. Start with one tablespoon of prune juice or one teaspoon of syrup in the bottle of formula twice a day. In older children, fiber supplements (Benefiber) or lubricants (mineral oil) may be used. The dose of mineral oil is one tablespoon per day.

When bowel movements are infrequent but not particularly hard, anal stimulation with a glycerin suppository or liquid glycerin mini-enema (Baby lax) may be effective. These methods should not be used more often than every two days.

Laxatives (polythylene glycol, senna) and enemas (Fleet's) are generally NOT recommended without prior office evaluation.

VIII. FEVER AND ACUTE ILLNESS

Here are some suggestions for you when your child becomes ill. These are general safe instructions regardless of the illness. Fever is perhaps the most overrated of all symptoms and often causes a great deal of unnecessary concern.

What is fever?

Fever is temperature elevation, usually in response to infection. It is a symptom, not a disease. Fever is one of the body's natural ways of fighting infection. Fever is defined by the manner of measurement:

Technique	Fahrenheit	Celsius
Rectal, Infrared Forehead	100.4	38
Oral	100	37.8
Axillary	99	37.2

Does high fever (104 - 105) mean severe illness?

No, not necessarily. Harmless viral illnesses may cause high fever and dangerous bacterial illnesses may only have fevers of 100 to 102. How your child looks and acts is just as important as the temperature. Fever is usually higher at night. Viruses commonly cause fever lasting two to four days.

If I don't do something to decrease the fever, will it keep going up?

The brain controls fever and will not let it go to a dangerous level unless a child is over bundled. After treatment with acetaminophen or ibuprofen, fever usually returns after medication has worn off. This is no cause for concern.

Does high fever cause brain damage?

Fever by itself **does not cause brain damage** unless the temperature exceeds 107°F. We should be notified when a fever exceeds 106°F.

Does high fever cause convulsions?

Not necessarily. Approximately 4 children out of 100 will have a fever convulsion (febrile seizure) sometime during the first 5 years of life. Fever convulsions rarely occur after 6 years of age. Seizures most commonly occur with rapid rise in fever rather than prolonged high fever. Febrile seizures rarely last more than 3 to 4 minutes and **do not cause brain damage**. Please call us if your child experiences a seizure. Until you speak to us, place the child on his side and bring his temperature down by sponging with tepid water. Do **not** bathe your child in alcohol.

Taking the Temperature

It is important to take your baby's temperature if you suspect he or she is ill. The temperature may be taken under the arm, rectally or with an infrared forehead scanner. In the older child, you may measure temperature under the tongue. Tympanic (ear) thermometers are inaccurate for children under two years of age. We prefer that you report the temperature you read and the site it was obtained rather than adding to or subtracting from the number.

Example: "I got 101 degrees under the arm."

We recommend using a basic digital thermometer. Traditional mercury thermometers work well, but are difficult to read and pose an environmental hazard when they break. Adhesive thermometers that attach to the skin and pacifier thermometers are inaccurate.

- 1) Taking a rectal temperature: Lubricate silver end with Vaseline and gently insert no more than one inch into rectum. Hold in place. Most digital thermometers beep when the temperature is registered.
- 2) Taking an axillary (armpit) temperature: Place silver end of thermometer under bare armpit. Hold the arm tightly against body.
- 3) Taking an oral temperature (ages five and older): Gently place silver end of thermometer under the tongue. Close the lips around the thermometer. Caution child to not talk or bite thermometer.

When should I call about my child's fever?

Nonemergency – call during office hours.

Fever lasting more than five days
Painful urination
Sore throat

Emergency – call after hours if necessary.

Child less than two months age
Profound lethargy (difficult to arouse)
Fast/difficult breathing
Stiff neck and headache
Dark red or purple rash on hands or feet.

Treatment of Fever

Low grade fevers (101 degrees or less) do not need to be treated at all. They generally do not make children uncomfortable and may actually be beneficial during an illness.

Temperature of over 101 usually makes the child uncomfortable (aching, chilling, etc.) and for that reason you will probably want to give your child

something for it. Do not awaken a sleeping child who is resting comfortably just to give him something for the fever. For fever or discomfort due to illness or immunization in **children over two months** we recommend giving acetaminophen every 4 to 6 hours. It is most accurate to base the dose **on** weight.

Acetaminophen Dosing

Administer every 4-6 hours.

Weight	Medicine Form	Dose
6-12 lb	infant drops (80mg/0.8ml)	0.4 ml (½ dropper)
12-17 lb	infant drops (80mg/0.8ml)	0.8 ml (1 dropper)
	syrup (160mg/5ml)	2.5 ml (½ teaspoon)
18-23 lb	infant drops (80mg/0.8ml)	1.2 ml (1 ½ droppers)
	syrup (160mg/5ml)	3.75 ml (¾ teaspoon)
	chewable tabs 80 mg	1 ½ tablets
24-35 lb	infant drops (80mg/0.8ml)	1.6 ml (2 droppers)
	syrup (160mg/5ml)	5 ml (1 teaspoon)
	chewable tabs 80 mg	2 tablets
36-47 lb	syrup (160mg/5ml)	7.5 ml (1 ½ tsp)
	chewable tabs 80 mg	3 tablets
	chewable tabs 160 mg	1 ½ tablets
48-59 lb	syrup (160mg/5ml)	10 ml (2 tsp)
	chewable tabs 80 mg	4 tablets
	chewable tabs 160 mg	2 tablets
60-71 lb	syrup (160mg/5ml)	12.5 ml (2.5 tsp)
	chewable tabs 80 mg	5 tablets
	chewable tabs 160 mg	2 ½ tablets
72-95 lb	syrup (160mg/5ml)	15 ml (3 tsp)
	chewable tabs 80 mg	6 tablets
	chewable tabs 160 mg	3 tablets
96 lb +	adult tablets 325mg	1 tablet
	chewable tabs 80 mg	8 tablets
	chewable tabs 160 mg	4 tablets
	adult tablets 325mg	2 tablets

Always check the concentration and type of the medication you are using.

For children **over six months**, you may wish to try **ibuprofen** (Motrin or Advil) every 6 hours for relief of fever, aches, or pain. Dose ibuprofen as follows:

Ibuprofen Dosing

Administer every 6-8 hours.

Weight	Medicine Form	Dose
11-16 lb	infant drops (50mg/1.25ml)	1.25 ml
17-21 lb	infant drops (50mg/1.25ml)	1.875 ml
	liquid (100mg/5ml)	3.75 ml ($\frac{3}{4}$ tsp)
22-27 lb	infant drops (50mg/1.25ml)	2.5 ml
	liquid (100mg/5ml)	5 ml (1 tsp)
	chewable tabs 50 mg	2 tablets
	chewable tabs 100mg	1 tablet
28-31 lb	liquid (100mg/5ml)	6.25 ml (1 $\frac{1}{4}$ tsp)
	chewable tabs 50 mg	2 $\frac{1}{2}$ tablets
	chewable tabs 100mg	1 tablet
32-43 lb	liquid (100mg/5ml)	7.5 ml (1 $\frac{1}{2}$ tsp)
	chewable tabs 50 mg	3 tablets
	chewable tabs 100mg	1 $\frac{1}{2}$ tablets
44-54 lb	liquid (100mg/5ml)	10 ml (2 tsp)
	chewable tabs 50 mg	4 tablets
	chewable tabs 100mg	2 tablets
	adult tab 200mg	1 tablet
55-65 lb	chewable tabs 50 mg	5 tablets
	chewable tabs 100mg	2.5 tablets
	adult tab 200mg	1 tablet
66-95 lb	chewable tabs 50 mg	6 tablets
	chewable tabs 100mg	3 tablets
	adult tab 200mg	1 $\frac{1}{2}$ tablets
96+ lb	chewable tabs 100mg	4 tablets
	adult tab 200mg	2 tablets

Always check the concentration and type of the medication you are using.

Thirty to sixty minutes are needed for fever medicines to take effect, and your child may only cool by 1-2 degrees. It is not essential to make your child's temperature 98.6 F (37 C), only to make your child more comfortable. Dress your child in light clothing.

**We do NOT recommend alternating doses
of acetaminophen and ibuprofen.**

Overdoses occur commonly with this practice and there is no proven benefit in the management of fever.

For fevers over 104 you may wish to give your child a sponge bath while the medication is taking effect. We suggest using tepid (bath temperature) water so your child will not be uncomfortable. Let the water temperature cool while your child bathes. We do NOT recommend cold water or alcohol baths. Rapid cooling will only make your child irritable.

Aspirin should NEVER be given to a child.

Diet:

You do not have to limit your child's diet just because she has a fever. It is OK to give milk when a child has fever. A child usually loses his appetite during illnesses; don't worry. Concentrate your efforts on encouraging fluid intake. As the infant or child improves they will return to a regular diet.

Activity:

Children usually display diminished tolerance for activity when ill, especially when there is fever. Strict bed rest is not necessary. As illness resolves, your child will resume his or her normal level of activity. After 24 hours without fever, a child may return to daycare or school.

If there are questions about your child's illness please feel free to phone the office. Our telephone nurses are here to help you from eight to five.

IX. THE COMMON COLD

From infancy to adulthood, all children suffer from occasional colds. Preschool age children commonly experience 6-10 colds a year, with each illness lasting 10 to 14 days. Over time, children gain some immunity to cold viruses, resulting in fewer and less severe episodes.

CAUSES

There are thousands of different virus types that cause colds. Colds are more common in the winter. They are transferred from person to person by coughing, sneezing and direct hand to hand contact. People are most contagious during the first 2-3 days of their illness, especially if there is fever.

EXPECTED COURSE

A cold usually begins with **nasal stuffiness** and a watery **runny nose**. It may be accompanied by **sneezing** and **watering eyes**. Some **coughing**, especially at night, is common. It helps clear the throat and bronchial tubes of secretions. **Fever** is common, especially in the first few days of the illness. Some children will have no fever at all, others can have fevers of 102 – 104 °F. Fever is often higher at night than during the daytime. Fevers can be brief, but often last from 3 to 5 days. Colds are often accompanied by **sore throat**, **headache**, **tiredness**, and **muscle aches**. By the third or fourth day of the cold, the nasal discharge usually becomes thicker and it may develop a **yellow or green discoloration**. Most symptoms are gone in 7 to 10 days, but some may last 2 to 3 weeks.

TREATMENT

1. Make sure your child gets plenty of rest.
2. Encourage extra fluids. Don't worry about poor appetite.
3. Use a suction bulb to clear the nose of infants and children too young to blow his or her nose.
4. Saline drops may be used to soften nasal mucus. Drops may be purchased over the counter or home made by adding ½ teaspoon of salt to 1 cup (8 oz, 240 ml). One to three drops in each nostril can be administered up to four times daily.
5. Protect skin around the nose with petroleum jelly.
6. Treat fevers, aches and pains with acetaminophen in children over two months or ibuprofen in children over six months.

7. Sore throats may be alleviated with cough drops or hard candy for children over four years.
8. Keep the room moist or humid when the air is dry. We recommend cool mist vaporizers or humidifiers. This helps keep the mucus thinner and easier to clear.
9. Do **not** start giving part of an old antibiotic prescription. It won't help due to the viral nature of colds and can make it more difficult to evaluate if complications should arise.
10. Do not overdress or overheat your child. A humidified room at 70 to 74 degrees is plenty warm.

Medications:

We do not recommend giving cough and cold medications to children under six years of age. Cold medications for children under two years have been taken off the market by the Food and Drug Administration due to lacking benefit and excessive side effect risk.

Older children and adolescents may use cold medications, although evidence for their benefit is weak. Keep in mind that the primary purpose of giving medication to a child with a cold is to improve their comfort until the cold has run its course. **Cold medicines will not shorten illness or prevent complications.**

If you are going to give a cold medicine, we recommend using one that contains only one or two ingredients targeted at the most bothersome symptom(s). There is no advantage to the all-in-one cough, stuffy nose, runny nose, sinus, fever, achy, headache, sore throat, so-my-child-and-I-can-sleep medicines. More ingredients result in more unwanted side effects, such as agitation or drowsiness. Decide exactly which symptoms you need to treat.

Stuffy Nose

There are two things that clog up noses: mucus and swelling. The best way to clear excess mucus from the nose is by the use of saline nose drops, nasal spray, or nasal irrigation.

Oral decongestants may help if the nasal passages are swollen. All over the counter decongestant brands for children contain the same active ingredient,

phenylephrine. Side effects from decongestants include agitation or restlessness.

Immediate acting phenylephrine can be given up to every 4 - 6 hours if needed, with no more than 4 doses in 24 hrs. Follow all package directions.

Runny Nose

Antihistamines help to dry up nasal secretions, but are much more effective in treating nasal allergies than colds. Also, antihistamines have a sedative (sleepy) effect. This can be either beneficial or detrimental, depending on the time of day. Conversely, some children will become more excitable after receiving antihistamines.

Consider whether an antihistamine is truly needed for your ill child. A runny nose can cause sore throat or cough, especially at night. However, just because a nose is runny does not mean it needs to be stopped. In fact, it is better for the nose and sinuses to drain than to be clogged up with sticky, dry secretions.

Cough

Cough is one of the more annoying cold symptoms, particularly when it interferes with sleep. Remember that the cough has an important purpose – to clear secretions from the airway. Accordingly, we often recommend not treating a cough unless it disrupts sleep. A cough will often get better when the cause (usually drainage) resolves. ½ to 1 tsp of honey can ease the tickling cough in children 12 months and older. Sucking on cough drops or hard candy can help the child over 4 years old.

There is only one over-the-counter cough suppressant available, dextromethorphan. It is found in numerous combination cough & cold preparations. Recent studies have shown dextromethorphan to be less effective than honey and no better than placebo.

A second type of cough medication, expectorants, are marketed on the premise that a tight or dry cough needs to be “loosened” before it can get better. This is more marketing than it is medical science and we do not recommend expectorants for the treatment of cough.

Fever

Fever is a common symptom of colds, and does not necessarily indicate pneumonia, ear or sinus infection. A low grade fever (< 101 °F) usually doesn't need treating. Children often run more fever late in the day and at night. Higher fevers (>101 °F) may make the child uncomfortable and you

may want to give a fever reducer to help the child rest. See preceding chapter for details on fever reducing medications.

Complications To Watch For

Ear infections are often preceded by a cold. Some of the viruses that cause colds can also cause bronchiolitis and viral pneumonia. Sinus infections can develop if there is prolonged nasal stuffiness. Since a cold can last up to two weeks, we don't get concerned about a sinus infection until nasal stuffiness and drainage has lasted at least that long. Bacterial pneumonia is a potential, yet uncommon, complication of colds.

Call right away if your child has difficulty breathing that is not due simply to blocked nasal passages.

Call during office hours if your child experiences:

- fever that lasts more than 5 days
- ear or chest pain
- yellow drainage from the eyes or ears

Prevention

Colds begin with contact with someone else who has the virus. This can be by hand to hand contact or through the air from coughing or sneezing.

- Frequent hand washing is very helpful in preventing transmission.
- Try to avoid undue exposure, especially with young babies, to other children or adults with colds, day care nurseries, and church nurseries.
- Avoid exposure to cigarette smoke. This impairs the immune system, as well as causing respiratory tract inflammation.
- Staying healthy by getting a good balanced diet assures that our immune system can function properly. Vitamin C, zinc and echinacea have not been proven helpful in preventing colds.

X. MIDDLE EAR INFECTIONS

Infection of the middle ear, *otitis media*, is common in infants and young children. Although ear infections can be extremely painful, they are seldom harmful.

WHAT CAUSES MIDDLE EAR INFECTIONS?

An ear infection is a secondary complication of colds and nasal allergies. Swelling in the nose and throat keeps the middle ear cavity from ventilating properly. Fluid accumulation in the middle ear results. When resident bacteria from the nose and throat begin to grow in this stagnant fluid, a middle ear infection results.

WHEN SHOULD PARENTS SUSPECT AN EAR INFECTION?

Children with ear infections have usually been suffering with a cold for a few days. The baby may cry out in pain or act inconsolable. Fussiness provoked by lying flat or swallowing is also suggestive. Some babies will grab or bat at their ears. Many children have fever with ear infections.

Surprisingly, some ear infections will cause no symptoms other than those expected with a mild cold. This is no reason for concern. Undiagnosed, hence untreated, ear infections usually resolve on their own without complication. Hearing damage resulting from ear infections is rare.

HOW IS AN EAR INFECTION TREATED?

- 1) An antibiotic drug is given regularly for a period of 5 to 10 days.
- 2) Antibiotic ear drops may be used if the eardrum is ruptured.
- 3) Pain relieving medicines may be used.
- 4) Occasionally, it is necessary to reexamine the ear in 1 to 2 weeks.

WHAT CAN BE DONE TO AVOID EAR INFECTIONS?

- 1) Do not smoke around your child.
- 2) Minimize exposure to other sick children as much as possible.
- 3) Treat nasal allergies when present.
- 4) If problems persist or recur frequently, referral to an ear, nose, and throat surgeon may be indicated. The ENT may recommend ear ventilation tubes and or the removal of adenoid tissue.

DISPELLING COMMON MYTHS ABOUT EAR INFECTIONS

- 1) Wind exposure has nothing to do with ear infection.
- 2) Taking a bottle while lying down has no effect on ear infection.
- 3) Water exposure has no impact on (middle) ear infection. (See Swimmer's Ear)
- 4) Not every ear infection requires antibiotic treatment.

XI. SWIMMER'S EAR

Swimmer's ear or external ear infection is a common ailment for those who swim. This inflammation and infection of the outer ear canal can be quite painful. When ears are frequently immersed in water, the ear wax becomes dry and may wash away. Increased moisture, along with the loss of protective wax, makes the ear canal an ideal place for infection to take hold.

Treatment involves antibiotic ear drops and may include placement of a wick. If the canal is blocked with wax and infected material, it may be washed so that the drops can reach the infected area. When swelling narrows the canal severely, a wick is used allowing medication to penetrate more deeply. If a wick is used, it is important that it stays in at least 24 hours. If it falls out during the first day, call the office. If it hasn't fallen out in three days, gently pull it out.

Swimming is NOT allowed during treatment.

Keeping the ears dry helps in preventing future external ear infections. After swimming, dry the ears well. Using a dropper, fill the canals with a mixture of: TWO parts alcohol with ONE part vinegar This helps to evaporate the water and make the area acidic to fight infection. Commercially prepared, over the counter after swimming drops are also available.

XII. CROUP

Croup is a viral upper respiratory illness which causes swelling above the voice box. It causes noisy breathing and a cough which sounds like a seal's bark. Croup generally worsens at night and is better during the day. There are several simple things you can do to help your child with croup:

- 1) Use a cool mist humidifier in your child's bedroom overnight.
- 2) Encourage child to drink more fluids than usual.
- 3) Keep the head of the bed elevated.
- 4) When an attack of loud, difficult breathing occurs, stay calm. Take your child to the bathroom, and turn on a hot shower. Allow your child to breathe the steamy air for 15 to 20 minutes.
- 5) If noisy breathing persists, take your child for a ride in the car. The calming effect of the ride plus breathing the cool night air usually stops the breathing problem.

XII. STREP THROAT

Streptococcus or "strep" is a common cause of sore throats in school aged children and adults. The hallmark symptoms of strep throat are the sudden onset of fever, sore throat, headache and vomiting. Tender swollen glands and a sandpaper-like rash are sometimes present. Strep can also cause skin infection (impetigo).

Strep is contagious especially among school classmates, athletic teammates and family members. Treating strep infections is important to prevent the development of rheumatic heart and kidney disease. These complications may occur approximately 3 weeks later if strep is not properly treated.

Diagnosis: The diagnosis of strep throat is made by physical examination and a throat swab. Our laboratory utilizes a rapid and sensitive streptococcal test which usually eliminates the need for (slower) throat cultures.

Treatment: Fortunately, strep is very sensitive to many antibiotic drugs including penicillin. A few days of antibiotic by mouth will usually bring the child's temperature to normal and alleviate most of the other symptoms. However, **it is essential to complete 10 days of therapy**. If treatment is stopped prematurely, the relapse rate is high, complications may occur and the whole process of treatment may have to be repeated. For this reason we sometimes treat strep throat with a one time, long acting penicillin shot.

It's important to realize **not all sore throats with fever are due to strep**. Many viruses can cause similar symptoms. Examination and a throat swab can help to distinguish different causes of sore throat.

Your child may return to school after he has been treated with antibiotic for at least 24 hours and there is no fever for 24 hours.

XV. VOMITING

Vomiting occurs commonly during infancy and childhood. It can accompany many different illnesses, some unrelated to the digestive system. Stomach flu, colds, strep throat, and pneumonia are all potential causes. **Vomiting is NOT usually dangerous.** It can, however, lead to dehydration if prolonged.

The key to vomiting management involves keeping the stomach relatively empty while simultaneously ingesting as much fluid as possible. This is accomplished by taking **very small but frequent sips of fluid.** Clear fluids are tolerated better than milk, which is tolerated better than solids. Consequently, this is the order in which diet is reintroduced as vomiting resolves.

1. Initiate vomiting therapy by resting the stomach. Wait at least thirty minutes before giving anything by mouth. Then give only **clear liquids** until your child has not vomited for at least six hours. The best clear liquids are those which contain salt as well as sugar, eg., Pedialyte, Infalyte, Ricelyte, or Kaylectrolyte. Some of these are available as (or can be made into) popsicles. Sport drinks like Gatorade are less desirable because of their lower salt content, but are generally acceptable for mild illness. Fruit juices should be avoided because of their tendency to cause or worsen loose stools.
2. Start with very small amounts; the stomach may only tolerate a teaspoon at first. Repeat this small dose of fluid every 10 minutes, gradually increasing the amount to a tablespoon and then an ounce. When vomiting recurs, rest the stomach again and restart with smaller amounts.
3. After six hours without vomiting, **formula or milk** may be tried. Continue with small volumes, increasing slowly. Another 12 hours after vomiting has stopped, **solid foods** may be reintroduced. Fatty and sugary foods should be avoided at first. Starches, lean meats, and yogurt are generally well tolerated.

Most cases of vomiting can be safely handled at home. However, there are some situations which require more attention. Dehydration is the most common cause for increased concern.

Suspect dehydration whenever your child has a dry, sticky mouth, fails to make tears with crying, does not urinate for more than eight hours, or vomits continuously for over twelve hours.

Bloody or bright green vomit should also prompt a call to our office.

XVI. DIARRHEA

Diarrhea, defined as loose or frequent stools, is common in infants and young children. Most diarrhea in children is caused by viruses, often in association with vomiting and fever. Bacteria, parasites, and food intolerance can cause diarrhea as well.

When diarrhea occurs with vomiting, it will be necessary to limit your child's diet (as outlined above). When diarrhea occurs without vomiting, a nearly regular diet may be continued. Fruit juices along with other high sugar, high fiber foods should be avoided. Prolonged or severe diarrheal episodes can result in temporary milk intolerance. If milk intake appears to worsen your child's diarrhea, you may use a soy or lactose free milk substitute.

Diarrheal illnesses are often associated with poor appetite; this will improve over time. Encourage your child to drink as much as possible. As with vomiting, **observe for signs of dehydration like dry mouth, failure to make tears, or lack of urine for eight hours.**

Bloody stools, mucousy stools, severe abdominal pain or failure to improve in two weeks should all prompt a call to our office for further evaluation.

XVII. RASHES

Many childhood illnesses are associated with a rash. Parents often fear that illnesses with rash are more dangerous than those without. This is usually not so. Rashes are associated with very mild and serious illnesses alike; many serious illnesses have no rash at all.

By far, the most common infection-related rash is the nonspecific type which accompanies many respiratory and gastrointestinal viruses. This rash is usually made up of small red bumps over the chest, abdomen and back. The spots will fade momentarily when pressed. The face and limbs may also be involved. No treatment is required for a nonspecific viral rash. It resolves on its own within days to a week.

Other infection-related rashes are distinct due to their consistent appearance and association with other symptoms. Several such rash illnesses are described below.

Chickenpox:

Until the 1990's chickenpox, (varicella), was a common childhood disease. Now, with the widespread use of chickenpox vaccine, very few children are ever affected. However, sporadic cases still occur. The majority of cases are of the mild (attenuated) variety seen in incompletely immunized children. In classic disease, itchy red pimples appear in successive crops, turn into blisters and eventually rupture and crust. There are generally fewer, smaller and less itchy spots in attenuated chickenpox. Fever, cold symptoms and secondary skin infections are uncommon in children who have had at least one dose of chicken pox vaccine. Incubation period for chicken pox is 10-16 days. Daily bathing will reduce the chance of secondary skin infection. Oral diphenhydramine (Benadryl), calamine lotion and oatmeal baths may help with itching.

We highly recommend the chicken pox vaccine to avoid this disease.

Fifth Disease (or Erythema Infectiosum):

The rash of Fifth Disease begins with a bright red, "slapped cheek", eruption on the face. As the cheeks begin to fade, a lacy-appearing rash spreads down over the body. Children do not feel ill with Fifth Disease. Fifth is caused by human parvovirus B19. It is contagious before the onset of the characteristic rash.

There is often concern about the effect of this virus on unborn children. Fetal harm can result when a previously unexposed woman is infected early in her pregnancy. Because the majority of pregnant women have antibodies to Fifth Disease (from previous infection) and because children with

identifiable Fifth Disease are no longer contagious, routine separation of pregnant women from children with Fifth is NOT necessary. If you are pregnant and have concerns about an exposure to Fifth Disease, talk with your obstetrician about blood testing to confirm your immunity.

Hand, Foot and Mouth Disease:

This illness gets its name from the characteristic distribution of the spots. They are small (1/8") oval-shaped flat blisters on the palms and soles and small sores in the mouth and throat. Young infants can also get spots on their bottoms. It is caused by the Coxsackie virus. Fever and a sore mouth and throat are the main symptoms of this illness.

Measles:

Except for occasional outbreaks, measles is quite uncommon in properly vaccinated children. The rash starts after 2-4 days of high fever, a hard cough, and red, draining eyes. The rash is heaviest on the face, chest and back, but also covers the arms and legs. The red spots are about 1/8" across and so thick they tend to run together.

Meningococcemia:

Of all the rashes listed here, this is the only one which represents a true emergency. Luckily, it is extremely rare. Meningococcus, a.k.a. *Neisseria meningitidis*, is a bacteria that causes meningitis. It causes a distinctive dark red to purple rash on the hands and feet. These flat spots start out small but eventually grow together in large patches. These spots do NOT fade when pressed upon and cannot be felt. Associated symptoms include fever, profound lethargy and stiff neck. If you suspect this illness in your child, please contact us immediately.

Roseola:

This virus causes infants to run a fever for 2-3 days without other symptoms except fussiness and swollen lymph nodes at the base of the skull. The rash doesn't appear until the fever breaks.

Scarletina:

Associated with strep throat, scarletina is made up of pin-point size bumps which are closely spaced mainly on the torso. It feels like sandpaper. Remember though, not all sore throats with a rash are due to strep.

Urticaria or Hives (whelps):

These itchy, red swollen plaques are most frequently associated with allergy, but often occur with viral infections, too. It is rarely dangerous. Diphenhydramine (Benadryl) will often improve the appearance and itching of hives.

XVIII. ANTIBIOTICS

Antibiotics are wonderful, sometimes life saving, weapons in the treatment of infectious disease. Unfortunately, they do not cure all infections, can cause unpleasant reactions and are often expensive. In addition, the more an antibiotic is used, the less effective it will be for future infections. The following discussion provides some background on the decision making process for when and how antibiotics are prescribed.

All children get sick, but most illnesses are fortunately mild. Whereas the average adult has only one sickness with fever every 5 to 10 years, the young child has 5 to 10 each year. As a result, we frequently evaluate children with fever. Because **both viruses and bacteria cause fever but only bacteria respond to antibiotics**, distinguishing between the two is crucial. Here are the tools we use to evaluate children with infection.

History and physical examination When a child's symptoms and examination shows no signs of pneumonia, tonsillitis, sinusitis, ear infection, urinary infection, or meningitis, we have eliminated the majority of the infections which require an antibiotic.

Lab Tests The blood count can help to tell if a serious infection is present, and whether it is bacterial or viral. An examination of the urine will show if an infection of the kidneys or bladder is likely. Chest x-rays may be necessary to further evaluate a suspicion of pneumonia.

What's Going Around? Knowing what types of infection are common at a given time of year helps us to decide if your child needs an antibiotic. For example, in late summer we often see a viral throat infection called herpangina. This condition improves in 2-3 days without the help of medication. On the other hand, winter is a time when strep throat is more common.

Some final comments on antibiotics:

If we find only signs of a viral infection and your child does not appear too ill, we usually recommend symptomatic treatment for fever and other symptoms while the immune system fights off the infection on its own. Parents sometimes request an antibiotic to "keep the child from getting sick" or to "nip it in the bud." If your child does not have a bacterial infection, antibiotics will be of no benefit and may cause unwanted side effects or allergic reactions. Increasing concern over antimicrobial resistance, (i.e., bacteria becoming immune to antibiotics), demands that we be judicious in prescribing.

Sometimes parents will ask for an antibiotic to be called out over the phone. It is contrary to our policy to call out an antibiotic without evaluating your child. It is not that we disagree with your diagnosis. We want to be sure of your child's condition and prescribe the most appropriate treatment possible.

XIX. CULTURES AND SENSITIVITY TESTS

Infections can be caused to viruses, bacteria or microscopic parasitic organisms. In evaluating an infection, it is sometimes necessary to determine exactly what type of organism is responsible. A test called a culture can provide that information.

A culture may be indicated in the following situations:

1. An infection which may be life threatening, such as meningitis or cellulitis.
2. Ear or urine infections which are not improving despite antibiotic drugs.
3. Persistent diarrhea.

In performing a culture, we collect a sample of blood, urine, spinal fluid, stool or discharge from your child. This material is then incubated in a nutrient mixture. Over the following days, the offending pathogen will multiply, forming a colony of identical organisms. By inspecting these organisms under the microscope, we can usually determine their exact identity. Accordingly, an appropriate treatment can be planned.

Sensitivity Tests:

Once a bacterial pathogen has been identified, additional information can be obtained by testing that bacteria's sensitivity to a variety of antibiotics. This information is particularly helpful when an infection is particularly aggressive and/or unresponsive to standard antibiotic therapy.

XX. WOUND CARE, BITES, LACERATIONS AND BURNS

Most minor wounds can be handled at home easily and safely. The first important step in managing a cut, scrape, or bite is to control bleeding. Please call us if constant, firm pressure for ten minutes fails to stop bleeding.

After bleeding has stopped, clean the wound by irrigating with clean tap water for five minutes. If bleeding restarts, apply pressure again once wound cleaning is completed. The irrigation phase is a good time to inspect the wound more closely for length, depth, and the presence of foreign bodies.

If a cut is more than a ¼" deep and tends to gape open, there is a reasonable chance that it will need stitches. Obviously, cuts in cosmetically significant areas such as the face are more likely to be sutured than are others. Foreign bodies that cannot be removed also warrant medical attention. The sooner stitches are placed, the less likely a wound will become infected and the more likely it will heal successfully. Twelve hours is generally considered the safest window in which to close a wound.

For cuts and scrapes that do not require a doctor's attention, keep the wound clean, dry, and covered with a bandage for the first 24 hours. Use of an over the counter antibiotic ointment will help to prevent infection but will not substitute for proper wound cleaning. Once the wound has scabbed over, bandaging is no longer necessary. Check to ensure that your child has received a tetanus vaccination in the last five years.

Please call our office in the following situations:

- 1) Bleeding that won't stop with ten minutes of pressure.
- 2) Wounds that reveal underlying structures like tendon, bone, or fat tissue.
- 3) Wounds that cause numbness, weakness, or tingling.
- 4) Wounds that develop painful swelling, spreading redness, or discharge of pus.

Bites:

Animal bites are handled in the same general fashion as cuts and scrapes. Special attention should be paid the following situations. (Please call us for assistance.)

- 1) Bites from animals without documented rabies immunization.
- 2) Animal bites to the hand or face.

Insect Stings:

If the stinger is still embedded, remove it with a scraping motion of your fingernail or a credit card. Don't pull on the stinger. A cold compress on the area can relieve pain. Diphenhydramine, (Benadryl), can be given to alleviate itching and swelling. We should be notified if you notice hives, paleness, weakness, nausea, vomiting, or difficulty breathing. Ticks can be removed with tweezers placed close to the head. Apply gentle, continuous traction.

Burns:

Burns are divided into three categories, according to their severity. First degree burns are the mildest and cause redness and slight swelling of the skin. Second degree causes blistering and considerable swelling. Third degree burns appear white or charred, and are often painless. Third degree burns cause serious injury to both the surface and the deeper skin layers.

Treatment:

- a. As quickly as possible, soak the burn in cool water. Do **not** use ice.
- b. Remove any clothing from the burned area unless it is stuck firmly to the skin. In that case, cut away as much as possible.
- c. Do **not** burst intact blisters. Apply antibiotic cream twice daily to any open blisters. Do **not** put butter, grease, or powder on a burn.
- d. For anything more serious than a superficial burn, call our office. All electrical burns, and burns of the hands, mouth, or genitals should receive immediate medical attention.
- e. When treating a burn at home, watch for any increase in redness or swelling, or the development of a bad odor or discharge. These can be signs of infection, which will require medical attention.

Injury to the Teeth:

If baby teeth are knocked out or broken, apply a clean gauze to control bleeding. If a permanent tooth is knocked out, rinse off any dirt and insert it root first into the socket or put it in a cup filled with milk or the child's saliva. Do not touch the root. If a tooth is broken save the pieces.

Call your dentist ASAP.

XXI. SPRAINS AND STRAINS

Sprains: An injury to the ligaments that surround a joint. Stretching or tearing of the ligaments results from forceful twisting of the joint.

Strains: An injury to a muscle which is caused by over stretching.

Treatment of sprains and strains:

Rest – Restrict use of the injured area until pain and swelling begin to subside. Gradually increase use as tolerated.

Ice – Apply directly to the skin for fifteen minutes every four hours. Continue for forty-eight hours.

Anti-inflammatory Medication – Ibuprofen (Advil or Motrin) should be given every six hours to reduce pain and inflammation.

Elevation – Elevate the injured knees and ankles above the waist whenever possible until swelling begins to subside.

Call the office if the affected joint is grossly deformed, cannot bear weight, or fails to improve after the first 48 hours. Complete recovery may take 3 to 4 weeks.

XXII. HEAD INJURY

Accidental head collisions are common in active children. These events cause a great deal of worry but usually cause little harm. An impressive area of red or purple swelling frequently results but does **not** necessarily indicate serious injury.

Many children following head trauma:

- 1) Cry immediately, but should become consolable in 5-10 minutes.
- 2) May vomit at least once. Do not feed or expect the child to eat for an hour after the injury. Then try sips of clear liquids.
- 3) Might become drowsy, especially if crying was intense or prolonged. Let your child sleep, but awaken every 2 hours for the next 6 hours.
- 4) Will complain of headache. Give acetaminophen and apply ice as needed.

Any child who immediately loses consciousness (passes out) or shows any of the following signs should be seen by a doctor:

- 1) Can't be awakened every two hours.
- 2) Vomits forcefully more than 2 times.
- 3) Eyes become crossed or the pupils become unequal in size.
- 4) Talks funny or seems confused.
- 5) Has severe headaches.
- 6) Develops weakness of arms or legs.
- 7) Experiences a seizure.

XXIII. POISONING

You may call poison control directly at 1-800-222-1222.

Poison control will direct you in the safest course of action.

These are some basic principles to guide you:

- 1) Save container and any material left in the container so you can give the name of the product and its contents.
- 2) **NEVER** induce vomiting by giving Syrup of Ipecac.
- 3) If your child has swallowed lye (drain cleaners, automatic dishwasher detergent etc.) or swallowed acid (toilet bowl cleaners, etc.) **DON'T** give anything by mouth, **CALL POISON CONTROL.**
- 4) If your child has inhaled a poisonous gas:
 - a. Carry patient to fresh air.
 - b. Apply artificial respiration if breathing has stopped.
 - c. Keep patient quiet and warm.
- 5) If toxic substance is on clothing and/or skin.
 - a. Remove contaminated clothing.
 - b. Rinse contaminated area thoroughly with water
- 6) If an irritating substance gets into the eyes, hold eyelids open and wash with gentle stream of running water for 5 minutes.

REMEMBER THAT THE BEST TREATMENT FOR ANY KIND OF POISONING IS PREVENTION.

LOCK UP ALL DANGEROUS CHEMICALS AND MEDICATIONS