

ANAL FISSURE

DEFINITION

An anal fissure is a shallow tear or crack in the skin at the opening of the anus. More than 90% of children with blood in their stools have an anal fissure.

The main symptoms are as follows:

- The blood is bright red.
- The blood is only a few streaks or flecks.
- The blood is on the surface of the stool or on the toilet tissue after wiping.
- Your child usually passes a large or hard bowel movement just before the bleeding starts.
- You may see a shallow tear at the opening of the anus when the buttocks are spread apart, usually at 6 or 12 o'clock. (A tear cannot always be seen.)
- Touching the tear causes mild pain.

Cause

Trauma to the anal canal during constipation is the usual cause of anal fissures.

Expected Course

Bleeding from a fissure stops on its own in 5 or 10 minutes.

HOME CARE

Warm Saline Baths. Give your child warm baths for 20 minutes, 3 times each day. Have your child sit in a basin or tub of warm water with about 2 ounces of table salt or baking soda added. Don't use any soap on the irritated area. Then gently dry the anal area.

Ointments. If the anus seems irritated, you can apply 1% hydrocortisone ointment (nonprescription). If the pain is severe, apply 2 1/2% Xylocaine or 1% Nupercainal ointment (no prescription needed) 3 times each day for a few days to numb the area.

Diet. The most important aspect of treatment is to keep your child on a non-constipating diet. Increase the amounts of fresh fruits and vegetables, beans, and bran products that your child eats. Reduce the amounts of milk products your child eats or drinks.

Occasionally, a stool softener (such as mineral oil) is needed temporarily.



CALL OUR OFFICE

During regular hours if:

- The bleeding increases in amount.
- The bleeding occurs more than two times after treatment begins.
- You have other concerns or questions.

BRONCHIOLITIS (RESPIRATORY SYNCYTIAL VIRUS)

DEFINITION

- Wheezing: a high-pitched whistling sound produced during breathing out
- Rapid breathing with a rate of over 40 breaths/minute
- Tight breathing (child has to push the air out)
- Coughing, often with very sticky mucus
- Onset of lung symptoms often preceded by fever and a runny nose
- Lots of sticky nasal mucus is a problem
- An average age of 6 months, always less than 2 years
- Symptoms similar to asthma
- This diagnosis must be confirmed by a physician

Cause

The wheezing is caused by a narrowing of the smallest airways in the lung (bronchioles). This narrowing results from inflammation (swelling) caused by any of a number of viruses, usually the respiratory syncytial virus (RSV). RSV occurs in epidemics almost every winter. Whereas infants with RSV develop bronchiolitis, children over 2 years of age and adults just develop cold symptoms. This virus is found in nasal secretions of infected individuals. It is spread by sneezing or coughing at a range of less than 6 feet or by hand-to-nose or hand-to-eye contact. People do not develop permanent immunity to the virus.

Expected Course

Wheezing and tight breathing (difficulty breathing out) become worse for 2 or 3 days and then begin to improve. Overall, the wheezing lasts approximately 7 days and the cough about 14 days. The most common complication of bronchiolitis is an ear infection, occurring in some 20% of infants. Bacterial pneumonia is an uncommon complication. Only 1 % or 2% of children with bronchiolitis are hospitalized because they need oxygen or intravenous fluids. In the long run, approximately 30% of the children who develop bronchiolitis go on to develop asthma. Recurrences of wheezing (asthma) occur mainly in children who come from families where close relatives have asthma. Asthma is very treatable with current medications.

HOME TREATMENT FOR BRONCHIOLITIS

Medicines. Some children with bronchiolitis respond to asthma medicines; others do not. Albuterol nebulizers are sometimes used but the physician must first see your child to determine if it works.

In addition, your child can be given Acetaminophen every 4-6 hours if the fever is over 102°F (39°C).

Warm Fluids for Coughing Spasms. Coughing spasms are often caused by sticky secretions in the back of the throat. Warm liquids usually relax the airway and loosen the secretions. Offer warm lemonade, warm apple juice or warm herbal tea if your child is over 4 months old. In addition, breathing warm moist air helps to loosen the sticky mucus that may be choking your child. You can provide warm mist by placing a warm wet washcloth loosely over your child's nose and mouth, or you can fill a humidifier with warm water and have your child breathe in the warm mist it produces. Avoid steam vaporizers because they can cause burns.

Humidity. Dry air tends to make coughs worse. Use a humidifier in your child's bedroom. The new ultrasonic humidifiers not only have the advantage of quietness, but also kill molds and most bacteria that might be in the water.

Nasal Washes for a Blocked Nose. If the nose is blocked up, your child will not be able to drink from a bottle or nurse. Most stuffy noses are blocked by dry or sticky mucus. Suction alone cannot remove dry secretions. Warm tap water or saline nose drops (nasal washes) are better than any medicine you can buy for loosening up mucus. Place 3 drops of warm water or saline in each nostril. After about 1 minute, use a soft rubber suction bulb to suck it out. You can repeat this procedure several times until your child's breathing through the nose becomes quiet and easy.

Feedings. Encourage your child to drink adequate fluids. Eating is often tiring, so offer your child formula or breast milk in smaller amounts at more frequent intervals. If your child vomits during a coughing spasm, feed the child again.

No Smoking. Tobacco smoke aggravates coughing. The incidence of wheezing increases greatly in children who have an RSV infection and are exposed to passive smoking. Don't let anyone smoke around your child. In fact, try not to let anybody smoke inside your home.



CALL OUR OFFICE

IMMEDIATELY if:

- Breathing becomes labored or difficult.
- Breathing becomes faster than 60 breaths/minute (when your child is not crying).
- Your child starts acting very sick.

Within 24 hours if:

- There is any suggestion of an earache.
- A fever lasts more than 3 days.
- You have other questions or concerns.

CHICKEN POX (VARICELLA)

DEFINITION

- Multiple small, red bumps that progress to thin-walled water blisters; then cloudy blisters or open sores, which are usually less than $\frac{1}{4}$ inch across; and finally dry, brown crusts (all within 24 hours)
- Repeated crops of these sores for 4-5 days
- Rash on all body surfaces but usually starts on head and back
- Some ulcers (sores) in the mouth, eyelids, and genital area
- Fever (unless the rash is mild)
- Exposure to chickenpox 14-16 days earlier

Cause

Chickenpox is caused by exposure to a highly contagious virus 14-16 days earlier. A chickenpox vaccine is available for preventing chickenpox.

Expected Course

New eruptions continue to crop up daily for 4-5 days. The fever is usually the highest on the third or fourth day. Your child will start to feel better and stop having a fever once he or she stops getting new bumps. The average child gets a total of 500 sores. Chickenpox rarely leaves any permanent scars unless the sores become badly infected with impetigo or your child repeatedly picks off the scabs. However, normal chickenpox can leave temporary marks on the skin that takes 6-12 months to fade. One attack gives lifelong immunity. Very rarely, a child may develop a second mild attack.

HOME CARE

Itching and Cool Baths. The best treatment for skin discomfort and itching is a cool bath every 3-4 hours for the first few days. Baths don't spread the chickenpox. Calamine lotion can be placed on the itchiest spots after the bath. Itchy spots can also be massaged with an ice cube for 10 minutes. If the itching becomes severe or interferes with sleep, give your child a nonprescription antihistamine such as Benadryl (Diphenhydramine).

Fever. Acetaminophen or Ibuprofen may be given in the dose appropriate for your child's age for a few days if your child develops a fever over 102°F (39°C). Aspirin should be avoided in children and adolescents with chickenpox because of the link with Reye's syndrome.

Sore Mouth. Since chickenpox sores also occur in the mouth and throat, your child may be picky about eating. Encourage cold fluids. Offer a soft, bland diet and avoid salty foods and citrus fruits. For infants, give fluids by cup rather than a bottle because the nipple can cause pain. If the mouth ulcers become troublesome and your child is over age 4, have him

gargle or swallow 1 teaspoon of an antacid solution 4 times per day after meals.

Sore Genital Area. Sores also normally occur in the genital area. If urination becomes very painful, apply 2 $\frac{1}{2}$ % lidocaine (Xylocaine) or 1% dibucaine (Nupercainal) ointment (no prescription needed) to the genital ulcers every 2-3 hours to relieve pain.

Prevention of Impetigo (Infected Sores). To prevent the sores from becoming infected with bacteria, trim your child's fingernails short. Also, wash his hands with an antibacterial soap (such as Dial or Safe-guard) frequently during the day. For young babies who are scratching badly, you may want to cover their hands with cotton socks.

Contagiousness and Isolation. Children with chickenpox are contagious until all the sores have crusted over, usually about 6-7 days after the rash begins. To avoid exposing other children, try not to take your child to the physician's office. If you must, leave your child in the car with a sitter while you check in. Your child does not have to stay home until all the scabs fall off (this may take 2 weeks). Most adults who think they didn't have chickenpox as a child had a mild case. Only 4% of adults are not protected. If you lived in the same household with siblings who had chickenpox, consider yourself protected. Siblings will come down with chickenpox in 14-16 days. The second case in a family always has many more chickenpox than the first case.



CALL OUR OFFICE

IMMEDIATELY if:

- The chickenpox look infected (yellow pus, spreading redness, red streaks).
- Your child develops a speckled red rash.
- Bleeding occurs into the chickenpox.
- Your child starts acting very sick.

Within 24 hours if:

- The fever lasts over 4 days.
- The itching is severe and doesn't respond to treatment.
- You have other concerns or questions.

COLDS

DEFINITION

- Runny or stuffy nose
- Usually associated with fever and sore throat
- Sometimes associated with a cough, hoarseness, red eyes, and swollen lymph nodes in the neck
- Also called an upper respiratory infection (URI)

Similar Conditions

1. *Vasomotor rhinitis.* Many children and adults have a profusely runny nose in the winter when they are breathing cold air. This usually clears within 15 minutes of coming indoors. It requires no treatment beyond a handkerchief and has nothing to do with infection.
2. *Chemical rhinitis.* Chemical rhinitis is a dry stuffy nose from excessive and prolonged use of vasoconstrictor nose drops (more than 1 week). It will be better within a day or two of stopping the nose drops.

Cause

A cold or URI is a viral infection of the nose and throat. The cold viruses are spread from one person to another by hand contact, coughing, and sneezing; not by cold air or drafts. Since there are up to 200 cold viruses, most healthy children get at least six colds each year.

Expected Course

Usually the fever lasts less than 3 days, and all nose and throat symptoms are gone by 2 weeks. A cough may last 2-3 weeks. The main things to watch for are secondary bacterial infections such as ear infections, yellow drainage from the eyes, sinus pressure or pain (often indicating a sinus infection), or difficulty breathing (often caused by pneumonia). In young infants, a blocked nose can interfere so much with the ability to suck that dehydration can occur.

HOME CARE

Not much can be done to affect how long a cold lasts. However, we can relieve many of the symptoms. Keep in mind that the treatment for a runny nose is quite different from the treatment for a stuffy nose.

Treatment for a Runny Nose with Profuse

Discharge: Suctioning or Blowing. The best treatment is clearing the nose for a day or two. Sniffing and swallowing the secretions are probably better than blowing because blowing the nose can force the infection into the ears or sinuses. For younger babies, use a soft rubber suction bulb to remove the secretions gently.

Nasal discharge is the nose's way of eliminating viruses. Medicine is not helpful.

Treatment for a Stuffy or Blocked Nose with Dried Yellow-Green Mucus: Warm-Water or Saline Nose Drops and Suctioning (Nasal Washes).

Most stuffy noses are blocked by dry mucus. Blowing the nose or suction alone cannot remove most dry secretions. Nose drops of warm tap water are better than any medicine you can buy for loosening dried mucus. If you prefer normal saline nose drops, mix $\frac{1}{2}$ teaspoon of table salt in 8 ounces of water. Make up a fresh solution every day and keep it in a clean bottle. Use a clean dropper to insert drops. Water can also be dripped or splashed in using a wet cotton ball.

- **For the younger child who cannot blow her nose:** Place 3 drops of warm water or saline in each nostril. After 1 minute use a soft rubber suction bulb to suck out the loosened mucus gently. To remove secretions from the back of the nose, you will need to seal off both nasal openings completely with the tip of the suction bulb and your fingers. You can get a suction bulb at your drug store for about \$2.
- **For the older child who can blow her nose:** Use 3 drops as necessary in each nostril while your child is lying on her back on a bed with the head hanging over the side. Wait 1 minute for the water or saline to soften and loosen the dried mucus. Then have your child blow her nose. This can be repeated several times in a row for complete clearing of the nasal passages.
- **Errors in using nose drops:** The main errors are not putting in enough water or saline, not waiting long enough for secretions to loosen up, and not repeating the procedure until the breathing is easy. The front of the nose can look open while the back of the nose is all gummed up with dried mucus. Obviously, putting in nose drops without suctioning or blowing the nose afterward is of little value.
- **Use nasal washes at least 4 times per day or whenever your child can't breathe through the nose.**

The Importance of Clearing the Nose in Young

Infants. A child can't breathe through the mouth and suck on something at the same time. If your child is breast or bottle feeding, you must clear the nose so she can breathe while sucking. Clearing the nasal passages is also important before putting your child down to sleep.

Treatment for Associated Symptoms of Colds

- **Fever:** Use acetaminophen or ibuprofen for aches or mild fever (over 102°F [38.9°C]).
- **Sore throat:** Use hard candies for children over 4 years old and warm chicken broth for children over 1 year old.
- **Cough:** Cough drops or honey for children over 4 years old and corn syrup for younger children. Run a humidifier.
- **Red eyes:** Rinse frequently with wet cotton balls.
- **Poor appetite:** Encourage fluids of the child's choice.

Prevention of Colds.

A cold is caused by direct contact with someone who already has one. Over the years, we all become exposed to many colds and develop some immunity to them. Since complications are more common in children during the first year of life, try to avoid undue exposure of young babies to other children or adults with colds, to day care nurseries, and to church nurseries. A humidifier prevents dry mucous membranes, which may be more susceptible to infections. Vitamin C, unfortunately, has not been shown to prevent or shorten colds. Large doses of vitamin C (e.g., 2 grams) cause diarrhea.

Common Mistakes in Treating Colds.

Most over-the-counter cold remedies or tablets are worthless. Nothing can shorten the duration of a cold. If the nose is really running, consider a pure antihistamine (such as Benadryl). Especially avoid drugs that have several ingredients because they increase the risk of side effects. Avoid oral decongestants if they make your child jittery or keep her from sleeping at night. Use acetaminophen or ibuprofen for a cold only if your child also has fever, sore throat, or muscle aches. Leftover antibiotics should not be given for uncomplicated colds because they have no effect on viruses and may be harmful.



CALL OUR OFFICE

IMMEDIATELY if:

- Breathing becomes difficult and no better after you clear the nose.
- Your child starts acting very sick.

Within 24 hours if:

- The fever lasts more than 3 days.
- The nasal discharge lasts more than 10 days.
- The eyes develop a yellow discharge.
- There is any suggestion of an earache or sinus pain.
- You have other questions or concerns

CONSTIPATION

DEFINITION

- *Painful passage of stools:* The most reliable sign of constipation is discomfort with the passage of a bowel movement.
- *Inability to pass stools:* These children feel a desperate urge to have a bowel movement (BM), have discomfort in the anal area, but are unable to pass a BM after straining and pushing for more than 10 minutes.
- *Infrequent movements:* Going 3 or more days without a BM can be considered constipation, even though this may cause no pain in some children and even be normal for a few. (**Exception:** After the second month or so of life, many breast fed babies pass normal, large, soft BMs at infrequent intervals [up to 7 days is not abnormal] without pain.)

Common Misconceptions in Defining Constipation

Large or hard BMs unaccompanied by any of the conditions just described are usually normal variations in BMs. Some normal people have hard BMs daily without any pain. Children who eat large quantities of food pass extremely large BMs. Babies less than 6 months of age commonly grunt, push, strain, draw up the legs, and become flushed in the face during passage of BMs. However, they don't cry. These behaviors are normal and should remind us that it is difficult to have a BM while lying down.

Causes. Constipation is often due to a diet that does not include enough fiber. Drinking or eating too many milk products can cause constipation. It's also caused by repeatedly waiting too long to go to the bathroom. If constipation begins during toilet training, usually the parent is applying too much pressure.

Expected Course. Changes in the diet usually relieve constipation. After your child is better, be sure to keep her on a non-constipating diet so that it doesn't happen again.

Sometimes the trauma to the anal canal during constipation causes an anal fissure (a small tear). This is confirmed by finding small amounts of bright red blood on the toilet tissue or the stool surface.

HOME CARE

Diet Treatment for Infants (Less than 1 Year Old)

- If your baby is under 2 months of age, try 1 teaspoon of dark Karo syrup twice a day.
- If over 2 months old, give fruit juices (such as apple or prune juice) twice each day.
- If over 4 months old, add strained foods with a high fiber content, such as cereals, apricots, prunes, peaches, pears, plums, beans, peas, or spinach twice daily; strained bananas and apples are neither helpful nor constipating.

Diet Treatment for Older Children (>1 Year Old)

- Make sure that your child eats fruits or vegetables at least three times each day (raw unpeeled fruits and vegetables are best). Some examples are prunes, figs, dates, raisins, peaches, pears, apricots, beans, celery, peas, cauliflower, broccoli, and cabbage. (**Note:** Avoid any foods your child can't chew easily.)
- Increase bran. Bran is an excellent natural stool softener because it has high fiber content. Make sure that your child's daily diet includes a source of bran, such as one of the new "natural" cereals, unmilled bran, bran flakes, bran muffins, shredded wheat, graham crackers, oatmeal, high-fiber cookies, brown rice, or whole wheat bread. Popcorn is one of the best high-fiber foods for children over 4 years old.
- Decrease consumption of constipating foods, such as milk, ice cream, yogurt, cheese, and cooked carrots.
- Increase the amount of fruit juices your child drinks. (**Note:** Orange juice is not as helpful as others.)

Sitting on the Toilet (Children Who Are Toilet Trained). Encourage your child to establish a regular bowel pattern by sitting on the toilet for 10 minutes after meals, especially breakfast. Some children and adults repeatedly get blocked up if they don't do this. If your child is resisting toilet training by holding back, stop the toilet training for a while and put her back in diapers or pull-ups.

Stool Softeners. If a change in diet doesn't relieve the constipation, give your child a stool softener with dinner every night for 1 week. Stool softeners are not habit forming. They work 8-12 hours after they are taken. Examples of stool softeners that you can buy at your drug store without a prescription are Haley's M-O (1 tablespoon), Benefiber or Miralax (1 tablespoon), or plain mineral oil (1 tablespoon).

Measures for Acute Rectal Pain. If your child has acute rectal pain needing immediate relief, one of the following will usually provide quick relief: sitting in a warm bath to relax the anal sphincter, a glycerine suppository, gentle rectal stimulation for 10 seconds using a thermometer, or a gentle rectal dilation with a lubricated finger (covered with plastic wrap).



CALL OUR OFFICE

IMMEDIATELY for advice about an enema if:

Your child develops severe rectal or abdominal pain.

During regular hours if:

- Your child does not have a bowel movement after 3 days on this non-constipating diet.
- You have other concerns or questions.

COUGH (VIRAL BRONCHITIS)

DEFINITION

- The cough reflex expels air from the lungs with a sudden explosive noise.
- A coughing spasm is more than 5 minutes of continuous coughing.

Cause

Most coughs are due to a viral infection of the trachea (windpipe) and bronchi (larger air passages). These infections are called tracheitis and bronchitis, respectively. Most children get this infection a couple of times every year as part of a cold. Keep in mind that coughing clears the lungs and protects them from pneumonia. Bronchitis isn't serious. The role of milk in thickening the secretions is doubtful.

Expected Course

Usually bronchitis gives a dry tickly cough that lasts for 2 to 3 weeks. Sometimes it becomes loose (wet) for a few days and your child coughs up a lot of phlegm (mucus). This is usually a sign that the end of the illness is near.

HOME CARE

Medicines to Loosen the Cough and Thin Secretions

- **Cough drops:** Most coughs in children over 4 years of age can be controlled by sucking on cough drops freely. Any brand will do.
- **Homemade cough syrup:** For children under age 4 years, use $\frac{1}{2}$ to 1 teaspoon of honey or corn syrup instead of cough drops. Honey and corn syrup can thin the secretions and loosen the cough.
- **Warm liquids for coughing spasms:** Warm liquids usually relax the airway and loosen the mucus. Start with warm lemonade, warm apple juice, or warm herbal tea if your child is over 4 months old. Avoid adding any alcohol because inhaling the alcohol fumes stimulates additional coughing and also because there is a risk of intoxication from unintentional over dosage. Children over 4 years old can suck on butterscotch hard candy or cough drops. (**Reason:** to coat the irritated throat.)

Cough Suppressants. Cough suppressants reduce the cough reflex, which protects the lungs. They are only indicated for dry coughs that interfere with sleep, school attendance, or work. They also help children who have chest pain from coughing spasms. They should not be given to young children under 24 months of age or for wet coughs.

A nonprescription cough suppressant is dextromethorphan (DM). Ask your pharmacist for help in choosing a brand that contains DM without any other active ingredients. Dosage is on the bottle and should not be used in children under 2

Often honey or corn syrup or cough drops can be given during the day and DM given at bedtime and during the night. DM is also available as a cough lozenge for easy carrying and as a long-acting (12-hour) liquid. **BE AWARE:** cough medicines do not STOP the cough they only quiet the cough minimally.

Humidifiers in the Treatment of Cough. Dry air tends to make coughs worse. Dry coughs can be loosened by encouraging a good fluid intake and using a humidifier in your child's bedroom. Ultrasonic humidifiers are very quiet, and they kill molds and most bacteria found in the water. Don't add medication to the water in the humidifier because it irritates the cough in some children.

Active and Passive Smoking. Teenagers will find that physical education classes and exercise trigger coughing spasms when they have bronchitis. If so, such physical activity should be avoided temporarily. Don't let anyone smoke around your coughing child. Remind the teenager who smokes that his cough may last weeks longer than it normally would without smoking.

Common Mistakes in Treating Cough. Antihistamines, decongestants, and antipyretics are found in many cough syrups. These ingredients are of unproven value, and the antihistamines carry the risk of sedation. Expectorants are of unproven value but harmless. Stay with the simple remedies mentioned above or use dextromethorphan. Milk does not need to be eliminated from the diet, since restricting it only improves the cough if your child is allergic to milk. Also, never stop breast feeding because of a cough.



CALL OUR OFFICE

IMMEDIATELY if:

- Breathing becomes difficult and is not better after you clear the nose.
- Your child starts acting very sick.

During regular hours if:

- A fever lasts more than 3 days.
- The cough lasts more than 3 weeks.
- You have other concerns or questions.

CROUP

DEFINITION

Description of Croupy Cough

- There is a distinctive cough that occurs with infections of the voice box (larynx).
- The cough is tight, low-pitched, and barky (like a barking seal).
- The voice is usually hoarse.

Description of Stridor

- A harsh, raspy, vibrating sound (stridor) is heard when your child breathes in.
- Breathing in becomes very difficult.
- Stridor only occurs with severe croup.
- Stridor is usually only present with crying or coughing.
- As the disease becomes worse, stridor also occurs when a child is sleeping or relaxed.

Cause

Croup is a viral infection of the vocal cords, voice box (larynx), and windpipe (trachea). It is usually part of a cold. The hoarseness is due to swelling of the vocal cords.

Stridor occurs as the opening between the vocal cords becomes more narrow.

Expected Course

Croup usually lasts for 5-6 days and generally gets worse at night. During this time, it can change from mild to severe many times. The worst symptoms are seen in children under 3 years of age.

FIRST AID FOR ATTACKS OF STRIDOR WITH CROUP

If your child suddenly develops stridor or tight breathing, do the following:

- **Inhalation of Warm Mist.** Warm, moist air seems to work best to relax the vocal cords and break the stridor. The simplest way to provide this is to have your child breathe through a warm, wet washcloth placed loosely over her nose and mouth. Another good way, if you have a humidifier (not a hot vaporizer), is to fill it with warm water and have your child breathe deeply from the stream of humidity.
- **The Foggy Bathroom.** In the meantime, have the warm shower running with the bathroom door closed. Once the room is all fogged up, take your child into the humidified bathroom for at least 10 minutes. Allay fears by cuddling her.
- **Results of First Aid.** Most children settle down after the above treatments and then sleep peacefully through the night.

Note: If the stridor continues in your child, call our office immediately. If your child turns blue, passes out, or stops breathing, call the rescue squad (911).

HOME CARE FOR A CROUPY COUGH

- **Humidifier.** Dry air usually makes coughs worse. Keep the child's bedroom humidified. Use a cool mist humidifier, if you have one. Run it 24 hours daily. Otherwise, hang wet sheets or towels in your child's room.
- **Warm, Clear Fluids for Coughing Spasms.** Coughing spasms are often due to sticky mucus caught on the vocal cords. Warm apple juice, lemonade, or herbal tea may help relax the vocal cords and loosen the sticky mucus.
- **Cough Medicines.** Medicines are less helpful than either mist or swallowing warm fluids. Older children (over age 4) can be given honey or cough drops for the cough, and younger children can be given $\frac{1}{2}$ to 1 teaspoon of honey (if older than 12 months) or corn syrup. If your child has a fever (over 102°F [38.9°C]), you may give her Acetaminophen or Ibuprofen.
- **Avoid Smoke Exposure.** Avoid letting anyone smoke around your child. Smoke can make croup worse.
- **Close Observation.** While your child is croupy, sleep in the same room with her. Croup can be a dangerous disease.
- **Contagiousness.** The viruses that cause croup are quite contagious until the fever is gone or at least until 3 days into the illness. Since spread of this infection can't be prevented, your child can return to school or child care once she feels better.



CALL OUR OFFICE

IMMEDIATELY and begin first aid for stridor if:

- Breathing becomes difficult (when your child is not coughing).
- Your child develops drooling, spitting, or great difficulty in swallowing.
- Your child develops retractions (tugging in) between the ribs.
- The warm' mist fails to clear up the stridor in 20 minutes.
- Your child starts acting very sick.

During regular hours if:

- A fever lasts more than 3 days.
- Croup lasts more than 10 days.
- You have other concerns or questions.

DIARRHEA (VIRAL GASTROENTERITIS)

DEFINITION

Diarrhea is the sudden increase in the frequency and looseness of bowel movements. Mild diarrhea is the passage of a few loose or mushy stools. Moderate diarrhea gives many watery stools. The best indicator of the severity of the diarrhea is its frequency. A green stool also points to very rapid passage and moderate to severe diarrhea.

The main complication of diarrhea is dehydration from excessive loss of body fluids. Symptoms are a dry mouth, the absence of tears, a reduction in urine production (e.g., none in 8 hours), and a darker, concentrated urine. It's dehydration you need to worry about, not the presence of diarrhea.

Cause

Diarrhea is usually caused by a viral infection of the intestines (gastroenteritis). Occasionally it is caused by bacteria or parasites. Diarrhea can be due to excessive fruit juice or to a food allergy. If only one or two loose stools are passed, the cause was probably something unusual your child ate.

Expected Course

Diarrhea usually lasts from several days to a week, regardless of the treatment. The main goal of therapy is to prevent dehydration by giving enough oral fluids to keep up with the fluids lost in the diarrhea. Don't expect a quick return to solid stools. Since one loose stool can mean nothing, don't start dietary changes until there have been at least two.

HOME CARE: DIET

Dietary changes are the mainstay of home treatment for diarrhea. The optimal diet depends on your child's age and the severity of the diarrhea. Go directly to the part that pertains to your child.

Special Diets for Diarrhea

1. Mild Diarrhea and Child of Any Age:

- Continue a regular diet with a few simple changes.
- Continue full-strength formula or milk. Encourage an increased intake of these fluids and extra water.
- Reduce the intake of fruit juices. If given, make them half strength with water.
- Avoid raw fruits and vegetables, beans, spicy foods, and any foods that cause loose stools.

2. Bottle-Fed Infants and Frequent, Watery Diarrhea

Oral Rehydration Solutions (ORS) for 6-24 Hours. Children with severe diarrhea need ORS to prevent

dehydration. Examples are Infalyte, Kao-Lectrolyte, or Pedialyte. These over-the-counter products are available in all pharmacies or supermarkets. (ORS is not needed for diarrhea unless it's severe.) If your child doesn't like the flavor, add a bit of Kool-Aid powder. Give as much ORS as your baby wants. Diarrhea makes children thirsty, and your job is to satisfy that thirst and prevent dehydration. Never restrict fluids when your child has diarrhea.

Until you get one of these special solutions, continue giving your baby full-strength formula in unlimited amounts. (Avoid giving your baby jell-O water mixtures or sports drinks. Reason: inadequate sodium content.)

If you can't get an ORS, ask your doctor about making a homemade ORS as follows: Mix $\frac{1}{2}$ cup of dry infant rice cereal with 2 cups (16 ounces) of water and $\frac{1}{4}$ level teaspoon of salt. Be careful not to add too much salt. (Reason: risk of salt poisoning.)

Continue giving your baby ORS for at least 6 hours. Between 6 and 24 hours, switch back to formula when your baby becomes hungry, the diarrhea becomes less watery, and the child is making lots of urine.

Returning to Formula. After your baby has been given ORS for 6-24 hours, she will be hungry, so begin her regular formula. If the diarrhea continues to be severe, begin with a soy formula. If you give cow's milk formula and the diarrhea doesn't improve after 3 days, change to a lactose-free formula (milk-based lactose-free or a soy formula). Often there is less diarrhea with soy formulas than with cow's milk formulas because the soy formulas don't contain milk sugar (lactose). If you start giving soy formula, plan to keep your baby on the soy formula until the diarrhea is gone for 3 days.

If your baby's bowel movements are very watery, mix the formula with 1 or 2 ounces of extra water per bottle for 24 hours. Then go back to full-strength formula after 24 hours.

Adding Solids. Foods that contain a lot of starch are more easily digested than other foods during diarrhea. If your baby is over 4 months old, has had diarrhea for over 24 hours, and wants to eat solid food, give her the following starchy foods until the diarrhea is gone: any cereal, mashed potatoes, applesauce, strained bananas, strained carrots, and other high-fiber foods.

3. Breast-Fed Infants and Frequent, Watery Diarrhea

Definition of Diarrhea. No matter how it looks, the stool of the breast fed infant must be considered normal unless it contains mucus or blood or develops a bad odor. In fact, breast fed babies can normally pass

some green stools or stools with a water ring around them. Frequency of movements is also not much help. As previously stated, during the first 2 or 3 months of life, the breast fed baby may normally have as many stools as one after each feeding. The presence of something in the mother's diet that causes rapid passage should always be considered in these babies (e.g., coffee, cola, or herbal teas). Diarrhea can be diagnosed if your baby's stools abruptly increase in number. Additional clues are if your baby feeds poorly, acts sick, or develops a fever.

Treatment. Continue breast feeding, but at more frequent intervals. Breast feeding should never be discontinued because of diarrhea. If urine production is decreased, offer ORS between breast feedings for 6-24 hours.

4. Older Children (over 1 Year Old) and Frequent, Watery Diarrhea

The choice of solids is the key factor; starchy foods are absorbed best. Give cereals (especially rice cereal), oatmeal, bread, noodles, mashed potatoes, carrots, applesauce, strained bananas, etc. Pretzels or salty crackers can help meet your child's sodium needs.

For fluids, use water (if solids are being consumed). If solids are not being consumed, offer ORS. Encourage a high fluid intake.

Avoid all fruit juice or other drinks containing fructose because they usually make diarrhea worse. Avoid milk for 2 or 3 days. (**Note:** lactose is not as easily absorbed as complex carbohydrates.) Active culture yogurt is fine. ORS is rarely needed, unless diarrhea is very watery and urine production is decreased.

HOME CARE: OTHER ASPECTS

Common Mistakes. Using boiled skim milk or any concentrated solution can cause serious complications for babies with diarrhea because they contain too much salt. Kool-Aid and soda pop should not be used as the only foods because they contain little or no salt. Use only the fluids mentioned. Clear fluids alone should only be used for 6-24 hours because the body needs more calories than they can provide. Likewise, a diluted formula should not be used for more than 24 hours. The most dangerous myth is that the intestine should be "put to rest"; restricting fluids can cause dehydration. Keep in mind that there is no effective, safe drug for diarrhea and that extra water and diet therapy work best.

Prevention. Diarrhea is very contagious. Hand washing after diaper changing or using the toilet is crucial for keeping everyone in the family from getting diarrhea.

Diaper Rash from Diarrhea. The skin near your baby's anus can become "burned" from the diarrhea stools. Wash it off after each bowel movement and then protect it with a thick layer of petroleum jelly or

other ointment. This protection is especially needed during the night and during naps. Changing the diaper quickly after bowel movements also helps.

Overflow Diarrhea in a Child Not Toilet Trained. For children in diapers, diarrhea can be a mess. Place a cotton washcloth inside the diaper to trap some of the more watery stool. Use disposable superabsorbent diapers temporarily to cut down on cleanup time. Use the ones with snug leg bands or cover the others with a pair of plastic pants. Wash your child under running water in the bathtub.



CALL OUR OFFICE

IMMEDIATELY if:

- Any blood appears in the diarrhea.
- Signs of dehydration occur (no urine in more than 8 hours, very dry mouth, no tears).
- Your child has severe diarrhea (more than eight bowel movements in the last 8 hours).
- The diarrhea is watery and your child also vomits the clear fluids three or more times.
- Your child starts acting very sick.
- Note: If your child has vomited more than once, treatment of the vomiting has priority over the treatment of diarrhea until your child has gone 8 hours without vomiting.

During regular hours if:

- A fever lasts more than 3 days.
- Mild diarrhea lasts more than 2 weeks.
- You have other concerns or questions.

EYE INFECTION WITHOUT PUS (VIRAL)



CALL OUR OFFICE

IMMEDIATELY if

- The outer eyelids become very red or swollen.
- Eye pain occurs.
- The vision becomes blurred.

Within 24 hours if

- A yellow discharge develops.
- The redness lasts for more than 7 days.
- You have other concerns or questions.

DEFINITION

- Redness of the sclera (white part of the eye)
- Redness of the inner eyelids
- A watery discharge
- No yellow discharge or matting of eyelids
- Not caused by crying or allergy
- Also called "bloodshot eyes" or "conjunctivitis"

Causes

Red eyes are usually caused by a viral infection, and they commonly accompany colds. If a bacterial super-infection occurs, the discharge becomes yellow and the eyelids are commonly matted together after sleeping. These children need antibiotic eye drops even if the eyes are not red.

The second most common cause is an irritant in the eye. The irritant can be shampoo, smog, smoke, or chlorine from a swimming pool. More commonly in young children it comes from touching the eyes with hands carrying dirt, food, soap, or animal saliva.

Expected Course

Viral conjunctivitis usually lasts as long as the cold (4 to 7 days). Red eyes from irritants usually are cured within 4 hours after washing out the irritating substance.

HOME CARE

Washing with Soap. Wash the face, and then wash the eyelids once with soap and water. Rinse them carefully with water. This will remove any irritants.

Irrigating with Water. For viral infections, rinse the eyes with warm water as often as possible, at least every 1-2 hours while your child is awake. Use a fresh, wet cotton ball each time. This usually will keep a bacterial infection from occurring. For mild chemical irritants, irrigate the eye with warm water for 5 minutes.

Vasoconstrictor Eye Drops. Viral conjunctivitis is not helped by eye drops.

Red eyes from irritants usually feel much better after the irritant has been washed out. If the eyes remain uncomfortable and bloodshot, instill some long-acting vasoconstrictor eye drops (a nonprescription item) such as visine.

Contagiousness. Viral conjunctivitis is harmless and mildly contagious. Children with viral conjunctivitis can attend day care or school.

EYE INFECTION WITH PUS (BACTERIAL)

DEFINITION

- Yellow discharge in the eye
- Eyelids stuck together with pus, especially after naps
- Dried eye discharge on the upper cheek
- The sclera may or may not have some redness or pinkness.
- Eyelids are usually puffy due to irritation from the infection.
- Also called "bacterial conjunctivitis," "runny eyes;" or "mattery eyes."

Note: A small amount of cream-colored mucus in the inner corner of the eyes after sleeping is normal.

Cause

Eye infections with pus are caused by various bacteria and can be a complication of a cold. Red eyes without a yellow discharge, however, are more common and are due to a virus.

Expected Course

With proper treatment, the yellow discharge should clear up in 3 days. The red eyes (which are due to the cold) may persist for several more days.

HOME TREATMENT

Cleaning the Eye. Before putting in any medicines, remove all the pus from the eye with warm water and wet cotton balls. Unless this is done, the medicine will not have a chance to work.

Antibiotic Eye Drops or Ointments. Bacterial conjunctivitis must be treated with an antibiotic eye medicine.

Putting eye drops or ointment in the eyes of younger children can be a real battle. It is most easily done with two people. One person can hold the child still while the other person opens the eyelids with one hand and puts in the medicine with the other. One person can do it alone if he sits on the floor holding the child's head (face up) between the knees to free both hands to put in the medication.

If we have prescribed antibiotic eye drops, put 2 drops in each eye usually 3 times per day. Do this by gently pulling down on the lower lid and placing the drops there. As soon as the eye drops have been put in the eyes, have your child close them for 2 minutes so the eye drops will stay inside. If it is difficult to separate your child's eyelids, put the eye drops over the inner corner of the eye while he is lying down. As your child opens the eye and blinks, the eye drops will flow in. Continue the eye drops until your child has awakened two mornings in a row without any pus in the eyes.

If we have prescribed antibiotic eye ointment, the ointment needs to be used just 4 times daily because it can remain in the eyes longer than eye drops. Separate the eyelids and put in a ribbon of ointment from one corner of the lower eyelid to the other. If it is very difficult to separate your child's eyelids, put the ointment on the lid margins. As it melts from body heat, it will flow onto the eyeball and give equally good results. Continue until two mornings have passed without any pus in the eye.

Contact Lenses. Children with contact lenses need to switch to glasses temporarily. (**Reason:** this helps prevent damage to the cornea.)

Contagiousness. The pus from the eyes can cause eye infections in other people if they get some of it on their eyes. Therefore, it is very important for the sick child to have his own washcloth and towel. Your child should be encouraged not to touch or rub the eyes because it can make the infection last longer and it puts many germs on his fingers. Your child's hands should also be washed often to prevent spreading the infection. After using eye drops for 24 hours and if the pus is minimal, children can return to day care or school.



CALL OUR OFFICE

IMMEDIATELY if:

- The outer eyelids become very red or swollen.
- The vision becomes blurred.
- Your child starts acting very sick.

Within 24 hours if:

- The infection isn't cleared up after 3 days on treatment.
- Your child develops an earache.
- You have other concerns or questions.

HEAD TRAUMA

DEFINITION

- History of a blow to the head
- Scalp trauma (cut, scrape, bruise, or swelling)

Cause

Every child sooner or later strikes his head. Falls are especially common when your child is learning to walk. Most bruises occur on the forehead. Sometimes black eyes appear 3 days later because the bruising spreads downward by gravity.

Expected Course

Most head trauma simply results in a scalp injury. Big lumps can occur with minor injuries because the blood supply to the scalp is so plentiful. For the same reason small cuts here can bleed profusely. Only 1-2% of injured children get a skull fracture. Usually there are no associated symptoms except for a headache at the site of impact. Your child has not had a concussion unless there is temporary unconsciousness, confusion, and amnesia. It is common for children to vomit shortly after a head injury. Up to 3 bouts of emesis is common but if your child continues to vomit or does not start vomiting until several hours after the head injury, your child needs to be seen in the office or the ER if it is after hours.

HOME CARE

Wound Care. If there is a scrape, wash it with soap and water, and apply pressure with a clean cloth (sterile gauze if you have it) for 10 minutes to stop any bleeding. For swelling, apply ice for 20 minutes.

Rest. Encourage your child to lie down and rest until all symptoms are gone (or at least 2 hours). Your child can be allowed to sleep; you don't have to try to keep him awake. Have him sleep nearby so you can periodically check on him. Don't give any pain medicine. If the headache is bad enough to need pain medicine, your child probably should be checked by a physician.

Diet. Only give clear fluids (ones you can see through) until your child has gone 2 hours without vomiting. Vomiting is common after head injuries, and there is no need to have him vomit up his dinner.

Pain Medicines. Don't give any pain medicine. If the headache is bad enough to require acetaminophen or ibuprofen, your child should be checked by a physician.

Special Precautions and Awakening. Although your child is probably fine, close observation for 48 hours after a head injury resulting in a concussion, will ensure that no serious complication is missed.

- Awaken your child twice during the night: once at your bedtime and again 4 hours later. Awakening every hour is unnecessary. Arouse him until he is

walking and talking normally. Sleep in his room or have him sleep in your room for two nights. If his breathing becomes abnormal or his sleep is otherwise unusual, awaken him to be sure a coma is not developing. After two nights, return to a normal sleep routine.



CALL OUR OFFICE

IMMEDIATELY if:

- The headache becomes severe.
- Vomiting occurs three or more times.
- Vision becomes blurred or double.
- Your child becomes difficult to awaken or confused.
- Walking or talking becomes difficult.
- Your child's neurological condition worsens in any other way.

INFLUENZA

DEFINITION

Influenza (flu) is a viral infection of the nose, throat, trachea, and bronchi that occurs in epidemics every 3 or 4 years (e.g., Asian influenza). The main symptoms are a stuffy nose, sore throat, and nagging cough. There may be more muscle pain, headache, fever, and chills than with usual colds. For most people, influenza is just a "bad cold" and bed rest is not necessary. The dangers of influenza for healthy people are overrated.

HOME CARE

The treatment of influenza depends on the child's main symptoms and is no different from the treatment for other viral respiratory infections. Bed rest is unnecessary.

Fever or Aches. Use Acetaminophen every 4-6 hours or Ibuprofen every 6-8 hours. Aspirin should be avoided in children and adolescents with suspected influenza because of the possible link with Reye's syndrome. Fever is usually high, > 102 degrees and can last up to 7 days.

Cough or Hoarseness. A deep moist cough is very common and can last up to 3 weeks. Give your child cough drops if over 4 years old. If your child is younger than 4 years old, give corn syrup or honey (if older than 1 year) $\frac{1}{2}$ to 1 teaspoon as needed.

Sore Throat. A sore throat usually occurs at the beginning of the illness. A soft diet will help. For children over age 1, offer sips of warm chicken broth. Children over age 4 can suck on sore throat lozenges.

Stuffy Nose. Warm water or saline nose drops followed by suction (or nose blowing) will open most blocked noses. Use nasal washes at least 4 times per day or whenever your child can't breathe through the nose. Saline nose drops are made by adding $\frac{1}{2}$ teaspoon of salt to 1 cup of warm water.

Contagiousness. Spread is rapid because the incubation period is only 24-36 hours and the virus is very contagious. Therefore, your child may return to day care or school after the fever is gone and she feels up to it.

INFLUENZA VACCINE AND PREVENTION

Influenza vaccine gives protection for 1 or 2 years and is recommended for **ALL** children 6 months to 18 years of age. Children with chronic diseases (e.g., asthma) need to have yearly influenza boosters. We give flu shots starting in the early Fall and continue to give the vaccine until the Influenza season finishes or we use all of our available vaccine.

The best prevention is frequent hand washing and coughing into your elbow.



CALL OUR OFFICE

IMMEDIATELY if

- Your child is having difficulty with breathing.
- Your child starts to act very sick.

During regular hours if

- An earache or sinus pain occurs.
- A fever lasts over 3 days.
- You have other questions or concerns.

PIERCED EAR INFECTION

DEFINITION

Symptoms of an infection of a pierced ear are tenderness, a yellow discharge, redness, and some swelling.

Causes

The most common causes of infection are inserting unsterile posts or frequently touching the earlobes with dirty hands. Another frequent cause is earrings that are too tight either because the post is too short (the thickness of earlobes varies) or the clasp is closed too tightly. Tight earrings don't allow air to enter the channel through the earlobe. Also, the pressure from tight earrings reduces blood flow to the earlobe and makes it more vulnerable to infection.

Some inexpensive earrings have rough areas on the posts that scratch the channel and can result in infection. Inserting the post at the wrong angle also can scratch the channel, so a mirror should be used until insertion becomes second nature. Posts containing nickel can also cause an itchy, allergic reaction.

Expected Course

With proper care, most mild earlobe infections will clear up in 1-2 weeks. Recurrences are common if the youngster is not conscientious in ear and earring care.

HOME CARE FOR MILD PIERCED-EAR INFECTIONS

Remove the earring and post three times a day and cleanse them with rubbing alcohol. Clean both sides of the earlobe with rubbing alcohol. Apply bacitracin ointment (a nonprescription item) to the post and reinsert it. Continue the antibiotic ointment for 2 days beyond the time the infection seems cleared. Carefully review and follow all the recommendations on preventing infections given below.

PREVENTION OF INFECTIONS

Recommended Age for Pierced Ears. Pierced earrings should not be worn until a child is old enough (usually older than 4 years) to know not to fidget with them (which can lead to infections) or take them out and put them in her mouth (which can lead to swallowing or choking on them). Ideally, the ears should not be pierced until a child can play an active part in the decision (usually past age 8).

Prevention of Infections When Ears Are First Pierced

- Do not pierce your child's ears if she has a tendency to bleed easily, form thick scars (keloids), or get staphylococcal skin infections.
- Have your child's earlobes pierced by someone who is experienced and understands sterile technique. Piercing by someone inexperienced can result in infections or a cosmetically poor result.
- The initial posts should be 14-karat gold or stainless steel.
- Do not remove the posts for 6 weeks.
- Apply the earring clasp loosely to allow for swelling.
- After washing the hands and cleaning both sides of the earlobes with rubbing alcohol, turn the posts approximately 3 rotations. Do this twice a day.
- By the end of 6 weeks, the lining of the channels should be healed and earrings may be changed as often as desired.

Prevention of Later Infections

- Remind your child not to touch the earrings, except when inserting or removing them. Fingers are often dirty and can contaminate the area.
- Clean earrings, posts, and earlobes with rubbing alcohol before each insertion.
- Apply the clasps loosely to prevent any pressure on the earlobes and to provide an air space on both sides of each earlobe.
- Polish or discard any posts with rough spots.
- At bedtime, remove the earrings so that the channel is exposed to the air during the night.

Prevention of Injury to the Earlobe. Remind your youngster that dangling earrings should not be worn during sports. Your child should also take precautions while dancing, hair washing, or handling young children who might yank the earrings.



CALL OUR OFFICE

IMMEDIATELY if:

- The earring clasp becomes embedded in the earlobe and can't be removed.
- Your child develops a fever.

During regular hours if:

- Swelling or redness spreads beyond pierced area.
- Your child develops a fever (> 100°F, or 37.8°C).
- The infection is not improving after 48 hours of treatment.
- You have other concerns or questions.

SORE THROAT (PHARYNGITIS)

DEFINITION

- The child complains of a sore throat.
- In children too young to talk, a sore throat may be suspected if they refuse to eat or begin to cry during feedings.
- When examined with a light, the throat is bright red.

Cause

Most sore throats are caused by viruses and are part of a cold. About 10% of sore throats are due to the strep bacteria. A throat culture or rapid strep test is the only way to distinguish strep pharyngitis from viral pharyngitis. Without treatment, a strep throat can have some rare but serious complications. Tonsillitis (temporary swelling and redness of the tonsils) is usually present with any throat infection, viral or bacterial. The presence of tonsillitis does not have any special meaning.

Children who sleep with their mouths open often wake in the morning with a dry mouth and sore throat. It clears within an hour of having something to drink. Use a humidifier to help prevent this problem. Children with a postnasal drip from draining sinuses often have a sore throat from frequent throat clearing.

Expected Course

Sore throats with viral illnesses usually last 3-4 days. Strep throat responds well to antibiotics. After taking the medication for 24 hours, your child is no longer contagious and can return to day care or school if the fever is gone and he is feeling better.

HOME CARE

Local Pain Relief. Children over 8 years of age can gargle with warm salt water (1/4 teaspoon of salt per glass). Children over 4 years of age can suck on hard candy (butterscotch seems to be a soothing flavor) or lollipops as often as necessary. Children over age 1 can sip warm chicken broth or warm apple juice.

Soft Diet. Swollen tonsils can make some foods hard to swallow. Provide your child with a soft diet for a few days if he prefers it.

Fever. Acetaminophen or Ibuprofen may be given for a few days if your child has a fever over 102°F (39°C) or a great deal of throat discomfort.

Common Mistakes in Treating Sore Throat

- Avoid expensive throat sprays or throat lozenges. Not only are they no more effective than hard candy, but they also may contain an ingredient (benzocaine) that may cause a drug reaction.

- Avoid using leftover antibiotics from siblings or friends. These should be thrown out because they deteriorate faster than other drugs. Unfortunately, antibiotics only help strep throats. They have no effect on viruses, and they can cause harm. They also make it difficult to find out what is wrong if your child becomes sicker.

Rapid Strep Tests.

Rapid strep tests are helpful and at Legacy Pediatrics they are very effective, >95% accuracy, so we do not do follow up throat cultures. Avoid rapid strep tests performed in shopping malls or at home because they tend to be inaccurate.



CALL OUR OFFICE

IMMEDIATELY if:

- Your child is drooling, spitting, or having great difficulty in swallowing.
- Breathing becomes difficult.
- Your child is acting very sick.

During regular hours if:

- To make an appointment for a throat culture for any other child with a sore throat present for more than 24 hours.

(Exception: If the sore throat is very mild and the main symptom is croup, hoarseness, or a cough, a throat culture is probably not needed. Throat cultures are recommended for all other sore throats because a resurgence of acute rheumatic fever began in 1987. Rheumatic fever is a complication of strep infections that can lead to permanent damage to the valves of the heart.)

- If a fever lasts more than 3 days.
- If you have other questions or concerns.

SWIMMER'S EAR (OTITIS EXTERNA)

DEFINITION

- Itchy and painful ear canals
- Currently engaged in swimming
- Pain when the outer ear is moved up and down
- Pain when the tab of the outer ear overlying the ear canal is pushed in
- A feeling that the ear is plugged up
- Slight, clear discharge initially; without treatment, it becomes yellowish

Cause

Swimmer's ear is an infection of the skin lining the ear canal. The cause is prolonged contact with water (any type of water). When water gets trapped in the ear canal the lining becomes damp, swollen, and prone to infection. Ear canals were meant to be dry. Children are more likely to get swimmer's ear from swimming in lake water, compared with swimming pools or the sea. During the hottest weeks of summer, some lakes have high levels of bacteria. Narrow ear canals also increase the risk of swimmer's ear.

Expected Course

With treatment, symptoms should be better in 3 days.

HOME TREATMENT

Antibiotic-Steroid Ear Drops

We use one of several different types of antibiotic-steroid ear drop. Ciprodex is one of them. The dose is 4 drops in the infected ear 2 times per day for 7 days.

Run the ear drops down the side of the ear canal's opening so that air isn't trapped under them. Move the earlobe back and forth to help the ear drops pass downward. Continue the ear drops for 7 days.

Generally, your child should not swim until the symptoms are gone. If she is on a swim team, continue the sport, but make sure she uses the ear drops as a rinse after each session. Continued swimming may cause a slower recovery but won't cause any serious complications.

Pain Relief. Use Acetaminophen or Ibuprofen as needed for pain relief.

Prevention. Limit how many hours a day your child spends in the water. The key to prevention is keeping the ear canals dry when your child is not swimming. After swimming, get all water out of the ear canals by turning the head to the side and pulling the earlobe in different directions to help the water run out. Dry the opening to the ear canal carefully. If recurrences are a big problem, rinse your child's ear canals with rubbing alcohol for 1 minute each time she finishes swimming or bathing to help it dry the ear canals and to kill germs. Another helpful home remedy

is a solution of 50% rubbing alcohol and 50% white vinegar. The vinegar restores the normal acid balance to the ear canal.

Common Mistakes. Don't use earplugs of any kind for prevention or treatment. They tend to jam ear wax back into the ear canal. Also, they don't keep all water out of the ear canals. Cotton swabs also shouldn't be inserted in ear canals. Wax buildup traps water behind it and increases the risk of swimmer's ear. A rubbing alcohol mixture is helpful for preventing swimmer's ear but not for treating it because it would sting too much.



CALL OUR OFFICE

IMMEDIATELY if:

- Your child starts acting very sick.
- The ear pain becomes severe.

During regular hours if:

- The symptoms are not cleared up in 3 days.
- A fever (over 100°F or 37.8°C) occurs.
- You have other concerns or questions.

VOMITING (VIRAL GASTRITIS)

DEFINITION

Vomiting is the forceful ejection of a large portion of the stomach's contents through the mouth. The mechanism is strong stomach contractions against a closed stomach outlet. By contrast, regurgitation is the effortless spitting up of one or two mouthfuls of stomach contents commonly seen in babies under 1 year of age.

Cause

Most vomiting is caused by a viral infection of the stomach (viral gastritis) or eating something that disagrees with your child. Often, the viral type is associated with diarrhea.

Expected Course

The vomiting usually stops in 6-24 hours. Dietary changes usually speed recovery. If diarrhea is present, it usually continues for several days.

HOME CARE FOR VOMITING

Special Diet for Vomiting

For Bottle-Fed infants (less than 1 year old).

- Offer oral rehydration solutions (ORS) for 8 hours. ORS includes Infalyte, Kao-Lectrolyte, & Pedialyte (over-the-counter products).
- For vomiting once, offer half-strength formula.
- For vomiting two or more times, offer ORS.
- Give small amounts (1 teaspoon) every 10 minutes.
- After 4 hours without vomiting, increase the amount.
- After 8 hours without vomiting, return to formula.
- For infants more than 4 months old, also return to cereal, strained bananas, etc.
- A normal diet is okay in 24 to 48 hours.

For Breast Fed Infants.

- Reduce the amount per feeding.
- Provide breast milk in smaller amounts. Your goal is to avoid filling the stomach.
- If your baby vomits twice, nurse on only one side every 1-2 hours.
- If he vomits more than two times, nurse for 4-5 minutes every 30-60 minutes.
- After 8 hours without vomiting, return to regular breast feeding.

For Older Children (more than 1 year old).

- Offer clear fluids in small amounts for 8 hours.
- Water or ice chips are best for vomiting without diarrhea because water is directly absorbed across the stomach wall (ORS is unnecessary).
- Other options: Half-strength flat lemon-lime soda or popsicles. Stir soda until the fizz is gone because the bubbles can inflate the stomach.

- Give small amounts (1 tablespoon) every 10 minutes.
- After 4 hours without vomiting, increase the amount.
- For severe vomiting, rest the stomach completely for 1 hour, then start over with smaller amounts.
- For older children (more than 1 year old), add bland foods after 8 hours without vomiting.
- Stay on bland, starchy foods (any complex carbohydrates) for 24 hours.
- Start with saltine crackers, white bread, rice, mashed potatoes, etc.
- A normal diet is okay in 24 to 48 hours.

Sleep. Help your child go to sleep. Sleep often empties the stomach and relieves the need to vomit. Your child doesn't have to drink anything if he feels nauseated.

Medicines. Discontinue all medicines for 8 hours. Oral medicines can irritate the stomach and make vomiting worse. If your child has a fever over 102°F (38.9°C), use Acetaminophen suppositories. Call our office if your child needs to be taking a prescription medicine.

Common Mistakes in Treatment of Vomiting. A common error is to give as much clear fluid as your child wants rather than gradually increasing the amount. This almost always leads to continued vomiting. Keep in mind that there is no effective drug or suppository for vomiting and that diet therapy is the answer. Vomiting alone rarely causes dehydration unless you give drugs by mouth, milk, or too much clear fluid.



CALL OUR OFFICE

IMMEDIATELY if:

- Any signs of dehydration occur (no urine in over 8 hours, very dry mouth, etc.).
- Any blood appears in the vomited material.
- Abdominal pain develops and lasts more than 4 hours.
- Your child starts acting very sick.

Within 24 hours if:

- The vomiting continues for more than 24 hours in children under age 2 or for more than 48 hours if over age 2.
- You have other concerns or questions.