

## Coughs/Colds

**Causes**— There are more than 100 different varieties of rhinovirus, the type of virus responsible for the greatest number of colds.

- Children under six years average six to eight colds per year (up to one per month, September through April), with symptoms lasting an average of 14 days. This means that a child could be ill with intermittent cold symptoms for nearly half of the days in this time period, without cause for concern. Young children in daycare appear to suffer from more colds than children cared for at home.

**Transmission** — Colds are transmitted from person-to-person, either by direct contact or by contact with the virus in the environment. Colds are most contagious during the first two to four days.

**Symptoms**— usually begin 1-2 days after exposure and are usually worst during the first 10 days

- nasal congestion is the most prominent symptom. Children can also have
- clear, yellow, or green-colored nasal discharge;
- fever (temperature greater than 100.4° F or 38° C) is common during the first three days of the illness.
- sore throat, cough, irritability, difficulty sleeping, and decreased appetite.

**It is not unusual for a child to develop a second cold as the symptoms of the first cold are resolving; this can make it seem as if the child has a single cold that lasts for weeks or even months, especially during the fall and winter.**

### Complications

- **Ear infection** — Between 5 and 15 percent of children with a cold develop a bacterial or viral ear infection. If a child develops a fever (temperature greater than 100.4° F or 38° C) after the first three days of cold symptoms, an ear infection may be to blame.
- **Asthma** — Colds can cause wheezing in children who have not wheezed before, or worsening of asthma in children who have a history of this condition.
- **Sinusitis** — Children who have nasal congestion that does not improve over the course of 14 days may have a bacterial sinus infection.
- **Pneumonia** — Children who develop a fever after the first three days of cold symptoms may have bacterial pneumonia, especially if the child also has a cough and is breathing rapidly.

### Treatment

**Symptomatic treatment** — We do not recommend the use of decongestants, cough medicines and expectorants because of the lack of proven efficacy and the potential risk of dangerous side effects.

- **Fever/Aches/Fussiness** - Parents may give acetaminophen (Tylenol®) (or ibuprofen (Motrin, Advil) for children greater than six months of age) to treat fever during the first few days. Aspirin should not be given to any child under age 18 years. There is no benefit of

these medications if the child is comfortable and does not have a fever greater than 100.4° F (38° C), and it is not necessary for all children to be treated for fever.

- **Nasal Congestion and Runny Nose** -Humidified air can improve these symptoms. For infants, parents can try saline nose drops to thin the mucus, followed by bulb suction to temporarily remove nasal secretions. An older child may try using a saline nose spray before blowing the nose.
- **Dehydration.** Parents should encourage their child to drink an adequate amount of fluids; it is not necessary to drink extra fluids. Children often have a reduced appetite during a cold, and may eat less than usual. **If an infant or child completely refuses to eat or drink for a prolonged period, the parent should contact their child's healthcare provider.**
- **Sleep** - One type of antihistamine (diphenhydramine [Benadryl®]) may provide a small benefit (drowsiness) to a child with a cold who is older than 12 months. However, there are other potential side effects of this antihistamine, including excitability, slowed breathing, and hallucinations.

**Antibiotics** — Antibiotics are not effective in treating colds. They may be necessary if the cold is complicated by a bacterial infection, like an ear infection, pneumonia, or sinusitis. Parents who think their child has developed one of these infections should contact their child's healthcare provider. Inappropriate use of antibiotics can lead to the development of antibiotic resistance, and can possibly lead to side effects, such as an allergic reaction.

**Herbal and alternative treatments** — A number of alternative products, including zinc, vitamin C, and herbal products such as echinacea, are advertised to treat or prevent the common cold. None of these treatments has been proven to be effective in clinical trials; their use is not recommended.

### Prevention

- Hand washing is an essential and highly effective way to prevent the spread of infection. Hands should be wet with water and plain soap, and rubbed together for 15 to 30 seconds. It is not necessary to use antibacterial hand soap. Teach children to wash their hands before and after eating and after coughing or sneezing.
- Alcohol-based hand rubs are a good alternative for disinfecting hands if a sink is not available. Hand rubs should be spread over the entire surface of hands, fingers, and wrists until dry, and may be used several times. These rubs can be used repeatedly without skin irritation or loss of effectiveness.
- Using a household cleaner that kills viruses (such as phenol/alcohol) may help to reduce viral transmission.

**When to Seek Help** — If a child develops any of the following features:

- Refusing to drink anything for a prolonged period
- Behavior changes, including irritability or lethargy (decreased responsiveness); this usually requires immediate medical attention.
- Difficulty breathing, working hard to breathe, or breathing rapidly; this usually requires immediate medical attention.
- Fever greater than 101°F (38.4°C) lasts more than three days.
- Nasal congestion does not improve or worsens over the course of 14 days
- The eyes become red or develop yellow discharge
- There are signs or symptoms of an ear infection (pain, ear pulling, fussiness)