

# Treating the Common Cold and Flu:

## *Special considerations for ADHD, ADD, and ASD*



BY KIM GOULD, RPh, MS

Kim Gould, RPh, MS is the pharmacist in charge at PURE Compounding Pharmacy, an innovative “green” pharmacy located in Naperville, IL. Kim’s specialty area of pharmacy practice includes compounding prescriptions for ADD, ADHD, and ASD.

The “common cold” and the flu have become such a frequent part of our seasonal vocabulary that we rarely take the time to think about the best way to treat their symptoms. Evaluating treatment options is especially important in people with multiple sensitivities such as those who have symptoms of autism spectrum disorders, ADD, and ADHD. The “common cold” was named this way because of its likeness to symptoms of exposure to the cold weather. The “flu” is short for “influenza.” Both the cold and flu are viral respiratory illnesses. The common cold may be bothersome, but the flu can lead to more dangerous and severe illness that can cause death in high risk patients. The average American child will have 6-10 colds per year, the average adult 2-4 episodes per year (Simasek and Blandino, 2007). Flu is less common, but it also has become part of our acceptance of normal expected illnesses. Currently, there is not a cure for the common cold or the flu. Generally, we treat the symptoms of the cold or flu -- not the virus itself. It is important to note that it is the symptoms of these viruses and their treatment that differentiate one from another. In order to have a better understanding of the two, I have summarized the differences between the cold and the flu in **Table 1**.



Kim Gould, RPh, MS. PURE Compounding Pharmacy, Naperville, Illinois

### Cold and Flu Medications

Treating cold and flu symptoms has become a large OTC (over-the-counter or non-prescription) business. Most drug and grocery stores have a large section dedicated to these products. The number of products available to the public is starting to decrease as the Food and Drug Administration (FDA) recognizes the problems with safety and efficacy of these drugs, especially when given to children. In December 2005, the FDA mandated that OTC decongestants containing phenylpropanolamine become prescription only. Studies showed

an increased incidence of stroke in people who took phenylpropanolamine. On October 8, 2008, the FDA released an announcement that manufacturers are voluntarily modifying all cold/flu products to state “do not use in children less than 4 years of age.” Experts reviewing the products think that these products should not be given to children under the age of 6, and extreme care should be given with children under 12-years-old. Many health care professionals believe greater measures should be taken while studies on the safety and effectiveness of these products are being undertaken. One problem noted by the FDA is that children are often overdosed from use of more than one medication at a time. Improper measurement of the dose has also posed safety risks. Understanding the directions and the ingredients and using

the measuring cup that comes with the product may reduce the incidence of overdosing. The FDA recommends that parents and caregivers check the active ingredients on the product label. Parents and caregivers should also check the inactive ingredients on the label, as both may affect the well-being of a person with ADD, ADHD, or ASD.

Inactive ingredients such as preservatives, dyes, and other excipients can cause allergic reactions, such as rash, exacerbation of asthma symptoms, anaphylaxis, hyperactivity, and, in some cases, upset stomach and diarrhea. **Table 2** lists some of the inactive ingredients that are commonly added to cold, cough, and flu products and the adverse reactions that may occur. If you have a prescription medication for which you would like to know the inactive ingredients, there are several ways to find out.

- First, you can ask your pharmacist to look at the package insert. Under the title “description” at the very top of the insert, there is a list of all the ingredients in a manufactured product.

## Cold and Flu Medications

**Table 1.**

	<b>Cold</b>	<b>Flu</b>
<b>Cause</b>	100 known types of cold viruses	Influenza virus, new strains evolve every few years
<b>Symptoms</b>	<ul style="list-style-type: none"> <li>• Temperature below 101° F</li> <li>• Starts with a sore throat, watery nasal drainage (later mucus may thicken and mild cough)</li> <li>• tiredness but can cope</li> </ul>	<ul style="list-style-type: none"> <li>• Fever, temperature over 101° F</li> <li>• Aches, pains in muscles and joints</li> <li>• Headache</li> <li>• Weakness and fatigue (doesn't want to get out of bed)</li> <li>• Vomiting, nausea, diarrhea</li> <li>• Dry cough</li> </ul>
<b>Contagious</b>	During the first three days of the cold	Contagious 1 day before symptoms and up to 7 days after
<b>Duration</b>	1-2 weeks (more than that may be allergies)	3-4 days, but cough and tiredness up to 2 weeks after fever has gone
<b>Symptoms to worry about</b>	<ul style="list-style-type: none"> <li>• Lower lung pressure</li> <li>• Stiff neck</li> <li>• Earache</li> <li>• Sore throat more than 5 days, fever and sore throat</li> <li>• Thick yellow/green mucus lasting more than a week with sinus pain may be a sinus infection</li> </ul>	<ul style="list-style-type: none"> <li>• Fever for greater than 3 days or fever returns</li> <li>• Cannot stop vomiting or diarrhea (dehydration)</li> <li>• Wheezing, shortness of breath</li> <li>• Stiff neck</li> <li>• Symptoms become worse</li> </ul>
<b>Treatments (see chart for individual symptoms and treatment)</b>	Treat symptoms (see Table 3 for individual symptoms and treatment).	<ul style="list-style-type: none"> <li>• Antiviral medications used within 48 hours will decrease flu symptoms by 1 day</li> <li>• Treat symptoms (see Table 3 for symptoms and treatment)</li> </ul>
<b>Complications</b>	<ul style="list-style-type: none"> <li>• Secondary bacterial infection</li> <li>• Sinus and ear infections</li> </ul>	<ul style="list-style-type: none"> <li>• Secondary bacterial infection</li> <li>• Dehydration, sinus and ear infections, must monitor chronic health problems like diabetes and asthma</li> </ul>
<b>Prevention</b>	Frequent hand washing; plenty of sleep, hydration, and exercise; well balanced diet. Immune support supplements, such as vitamin C, zinc, Echinacea, goldenseal, and elderberry, may help. Change your toothbrush after having the cold or flu so you don't become reinfected. Use alcohol sanitizers if soap and water are not available.	

■ Second, check a *Physicians' Desk Reference (PDR)*. The *PDR* is a compilation of package inserts printed as a book. Most libraries and large book stores have a copy of the *PDR*. Unfortunately, only the most current high volume prescription drugs are in the book.

■ Third, you can look online. Find the official website of the prescription drug you are checking on. Click on "health care professional" and then go to the prescribing information section, which will bring up a copy of the package insert. The first item listed is the description, and the inactive ingredients are listed there.

### Treating Symptoms

When treating the symptoms of a cold or flu virus, it is best to look at each symptom and treat it accordingly. When you administer multi-symptom relief products, you may be giving unnecessary medications that may have unwanted side effects. One of the concerns brought to the attention of the FDA was that children were being given overdoses when parents/caregivers did not realize the same type of medication was in the multi-symptom product as in the individual symptom product that they were giving. If you buy OTC medications to treat

cold and flu symptoms, buy products that have single active ingredients and as few additives as possible.

Remember that colds and flu are viral infections. Therefore, antibiotics are not effective against these viral infections and should not be taken to treat them. When unnecessarily prescribed, antibiotics can cause resistant organisms, yeast overgrowth, and immune suppression. When antibiotics are needed for secondary bacterial infection, probiotics should be used to help maintain a healthy gut. (*Editor's note: probiotics should not be given at the same time as the antibiotic dose, but spaced midway between doses.*) The antibiotic Augmentin™ is commonly prescribed for children with ear infections. It has been reported that Augmentin™ should be avoided in patients with autism, Asperger's, ADD, or ADHD due to a potential adverse neurological effect caused by the clavulanate component of Augmentin™ (Fallon, J 2005).

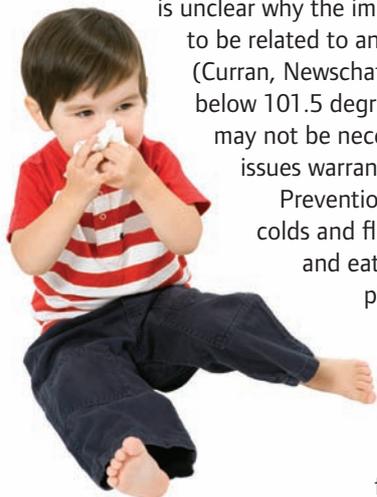
**Table 3** is a list of suggested treatments for common cold and flu symptoms and what considerations should be given to people with a diagnosis of autism, ADD, ADHD, or Asperger's syndrome.

The best approach in treating the symptoms is to look at each one individually and apply treatments according to each. At the first sign of symptoms (e.g., sore throat for cold), I like to start taking zinc and vitamin C and use an herbal blend drop containing Echinacea, shitake, and noni, which also boosts immunity. Try

some of the non-medicine interventions if you have not used them before. Nasal irrigation with saline solution (homemade or purchased) has become a popular alternative to decongestants. Warm liquids to drink, inhale or bathe in are very comforting and therapeutic. A few drops of eucalyptus oil in a bath will help clear a stuffy nose and head.

Recent studies indicate that some patients' autistic-like symptoms may improve during a fever. Children became calmer and had an improved response to touch and closeness. Although it is unclear why the improvements occur, it is thought to be related to an immune system response (Curran, Newschaffer, et al. 2007). Treating a fever below 101.5 degrees Fahrenheit with medications may not be necessary unless underlying medical issues warrant the use of medicine.

Prevention is always the best medicine for colds and flu. Practicing good hand washing, and eating, drinking and sleeping well, plus a little knowledge about treatment options will go a long way. Remember -- with the exception of using prescription antiviral medications -- we only treat the symptoms of cold and flu, not the virus.



**PURE**  
COMPOUNDING PHARMACY

603 E. Diehl Road, Suite 131, Naperville, Illinois 60563

**Ph: (630) 995-4300 or (877) 976-7873**

**Custom Allergen Free Prescriptions**

PURE Compounding Pharmacy meets your needs by making unique dosage forms that contain ingredients that work for you! We make prescription medications **without allergens or artificial additives**. We prepare prescriptions in many different forms such as liquids, capsules, suppositories, topical creams and gels.

We specialize in prescriptions for the treatment of **Autism, ADD, ADHD, Asthma, Allergies, and Colitis**. Please call us with your specialty compounding needs.

**Our compounded prescriptions are free of dyes, wheat, gluten, corn, soy, dairy, casein, yeast, stearates, nuts, eggs, shellfish, excitotoxins, artificial sweeteners, colors or flavors. Our ingredients meet the highest standards for purity.**

[www.purecompounding.com](http://www.purecompounding.com) [purecompounding@yahoo.com](mailto:purecompounding@yahoo.com)

## A few medication additives commonly found in cough, cold, and flu preparations that may cause adverse reactions **Table 2.**

Purpose	Additive	Reported Adverse Effects
<b>Preservative</b>	Sodium Benzoate	• Exacerbation of asthma (Kumar, Weatherly, et al.,1991).
	Benzoic Acids	• Hyperactivity (Bateman, Warner, et al., 2005).
	Parabens	Asthmatic reactions, brochospasm, pruritis (itching), urticaria (hives). (Nagel, Fuscald, et al.,1977).
<b>Sweeteners</b>	Aspartame (NutraSweet™, Equal™)	Hives, angioderma (swelling), cross sensitivity with sulfonamides, (Kumar, Rawlings, et al.,1993) hyperactivity when acting as an excitotoxin (Boch, 2007).
	Sucrose	Increases blood glucose, can cause hyperactivity.
	Saccharin	Hives, itching, nausea, diarrhea, wheezing, gait disturbances, skin eruptions, rapid heart rate, cross sensitivity with sulfonamides. (Kumar, Rawlings, et al.,1993).
<b>Azo Dyes</b>	Tartrazine (FD&C Yellow 5)	Anaphylactoid reactions, swelling, asthma symptoms, rash, runny nose, hyperkinesia in hyperactive patients, cross reactivity with aspirin and sodium benzoate. (Kumar, Rawlings, et al.,1993).
	Sunset Yellow (FD&C Yellow 6)	Anaphylactoid reactions, swelling, anaphylactic shock, vasculitis, retching, abdominal pain, purpura, vomiting, belching, cross-reactivity with aspirin, acetaminophen, sodium benzoate, and other azo dyes (Kumar, Rawlings et al.,1993).

### References

Bateman, B., Warner, J.O., et al. (2005). The effects of a double blind placebo controlled, artificial food colourings and benzoate preservative challenge on hyperactivity in a general population sample of preschool children. *Arch Dis Child*. 90(8):875.

Boch, K. (2007). *Healing the New Childhood Epidemics: Autism, ADHD, Asthma, and Allergies*. New York: Ballantine Books.

Curran, L.K., Newschaffer, C.J., et al. (2007). Behaviors associated with fever in children with autism spectrum disorders. *Pediatrics* 120 (6): e1386-e1392.

Fallon, J. (2005). Could one of the most widely prescribed antibiotics amoxicillin/clavulanate Augmentin™ be a risk factor for autism? *Medical Hypothesis* 64:312-315.

Garland, M.L., Hagemeyer K.O. (1998). The role of zinc lozenges in the treatment of common cold symptoms. *Ann Pharmacother*. 32:63-69.

James, S.J., Slikker, W. et al. (2005). Thimerosal neurotoxicity is associated with glutathione depletion: protection with glutathione precursors. *Neurotoxicology* 26(1):1-8.

Kumar, A., Rawlings, R. et al. (1993). The mystery ingredients: sweeteners, flavorings, dyes, and preservatives in analgesic/antipyretic/antihistamine/decongestant, cough & cold, antidiarrheal and liquid theophylline preparations. *Pediatrics* 1993;91:927-933.

Kumar, A., Weatherly, M. et al. (1991) Sweeteners, flavoring, and dyes in antibiotic preparations. *Pediatrics* 87(3): 352-360.

Nagel, J., Fuscald, J. et al. (1977). Paraben allergy. *JAMA* 237(15):1594-5.

Pangborn, J., Baker, S.M. (2005). *Autism: Effective Biomedical Treatments*. San Diego: Autism Research Institute.

Simasek, M., Blandino, D.A., (2007). Treatment of the common cold. *American Family Physician*, 75 (4):515-520.

Williamson, J.M., Boettcher, B., et al. (1982). Intracellular cysteine delivery system that protects against toxicity by promoting glutathione synthesis. *Proc. Natl. Acad. Sci., USA* 79:6246-6249.

## Treating Symptoms of Cold and Flu

**Table 3.**

Symptom	Treatment	ADD/ADHD/ASD/Asperger's considerations
<b>Fever, Body Aches, Headache</b>	<i>Ibuprofen</i>	<ul style="list-style-type: none"> <li>Consider having ibuprofen compounded to eliminate dyes, sweeteners and additives.</li> <li>Do not use acetaminophen because it decreases glutathione levels (Williamson and Boettcher, 1982). Glutathione is important in detoxification (Pangborn and Baker, 2005) and reducing oxidative stress.</li> <li>Aspirin may cause Reye's syndrome if patient has the flu.</li> <li>Aspirin and other salicylates can be allergenic and are closely related to phenols. Phenols can cause cognitive, physical and behavioral problems (Bock, 2007) in people with sulfation problems.</li> </ul>
<b>Congestion</b> Here are three ways to help alleviate congestion without using medications that may cause hyperactivity.	<i>Moist heat</i>	Warm compresses to cheeks and sinuses (you can add 1-2 drops of tea tree oil or eucalyptus oil in the compress). Warm showers will also open airways and moisten and thin sinus mucus.
	<i>Drink more liquids</i>	Drink at least 6-8 cups of water each day to help liquefy the mucus that builds up. Warm water and herbal teas are more effective. Avoid liquids containing caffeine because these may cause dehydration.
	<i>Nasal saline irrigation or saline nasal sprays</i>	Scientific studies show saline nasal irrigation will thin mucus, decrease post-nasal drip, and remove virus and bacteria particles from your nose. Xylitol nasal sprays can also be helpful in humidifying the nasal passage and decreasing nasal irritation.
<b>Sore Throat</b>	<i>Warm drinks and gargles</i>	Drinking warm tea with honey (local honey may help with allergies; honey should only be given in children over age 2) or gargling with warm honey/lemon/water or warm salt water.
<b>Cough</b>	<i>Alternatives to cough medicines</i>	<ul style="list-style-type: none"> <li>Warm tea and honey.</li> <li>Slippery elm (available in lozenges with zinc). Slippery elm has received recognition from the FDA as a safe and effective treatment for cough and sore throat.</li> <li>Cough lozenges made from xylitol and honey (Ricola has a good tasting drop).</li> <li>Peppermint thins mucus and will help loosen and break up the phlegm of productive cough. It is soothing for dry coughs and sore throats. You can use either peppermint teas or candies (xylitol based).</li> <li>There are no over-the-counter cough suppressants available for children under 6-years-old, and those that are available should be used with caution for children under 12-years-old.</li> </ul>
<b>Runny nose, eyes and sneezing</b>	<i>Antihistamines</i>	<ul style="list-style-type: none"> <li>Dye-free diphenhydramine (some products contain sodium benzoate and saccharin). You can also have it compounded with a prescription from your doctor. Newer non-drowsy antihistamines do not work for cold symptoms.</li> <li>Quercetin is useful in stopping the production of histamine and inflammation; it is also a potent antioxidant. The University of Maryland has a great website for complementary medicine. A use and dosing guideline for Quercetin is available at <a href="http://www.umm.edu/altmed/articles/quercetin-000322.htm">http://www.umm.edu/altmed/articles/quercetin-000322.htm</a></li> </ul>
<b>Nausea, vomiting, diarrhea</b>	<i>Fluids</i>	<ul style="list-style-type: none"> <li>It is important to replace lost fluids and prevent dehydration. Include a variety of liquids (not cold because that can upset the stomach more), such as: water, broth, tea, and juices (watered down may be easier on the stomach).</li> <li>The BRAT diet is good until the system settles down (<b>B</b>ananas, <b>R</b>ice, pear sauce [instead of <b>A</b>pplesauce for the child who is limiting phenols], and <b>I</b>oast (gluten free).</li> <li>Probiotics help to restore the normal flora in the gut. (Ed. note: not to be taken at the same time as dose of antibiotics.)</li> </ul>
<b>Shorten the length of the symptoms</b>	<i>Vitamin C (ascorbic acid); zinc lozenges</i>	<ul style="list-style-type: none"> <li>Treating with vitamin C when cold symptoms develop will help decrease the length of the cold.</li> <li>Studies have shown that zinc lozenges can reduce the length of a cold (Garland and Hagemeyer, 1998). It may also soothe the throat and reduce coughing. One of my favorite products is zinc lozenges with slippery elm. Slippery elm has received recognition from the FDA as a safe and effective treatment.</li> <li>Oral zinc liquids and capsules should also be effective in reducing the length of a cold.</li> </ul>