Should you really feed a cold and starve a fever?

By Hailey Middlebrook, Special to CNN

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Photos: Worst, best foods to eat when sick

Have a headache? Don't grab a hot dog for lunch. It will only trigger more pain in your head. Click through our gallery to see more of the best and worst foods for your ailments.

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"Feed a cold, starve a fever" is an age-old adage, though its origin -- and its practicality -- is unclear.

The saying may have stemmed from antiquated thoughts on body temperature: If someone had a cold, the belief went, his or her body became literally colder, according to old wives' tales. Therefore, to "warm up" someone ill with a cold, food was given. Conversely, if someone was burning with fever, not eating was believed to "cool" the patient down.

Thankfully, starving is no longer recommended for treating any sickness. Proper nutrition -- and even more important, proper hydration -- is crucial in preventing and recovering from both fevers and colds. We know that staying hydrated is a key factor in fighting infections. However, the amount of food we need when we're sick may be different for children and adults.

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In children: Feed a cold, feed a fever

Dr. Jon S. Abramson, a pediatric infectious disease expert at Wake Forest Medical School, has found no medical evidence to support feeding a cold and starving a fever. He is particularly offended by the latter part of the phrase.

As Abramson explained, when we are sick, whether we have a fever or not, our metabolic rates skyrocket, and our bodies need more calories to support that high metabolic rate. The hotter a fever becomes, the more energy the body uses, and not replenishing this energy with sugar and electrolytes is extremely dangerous, especially for children, who have less reserved energy than adults.

"Always feed both colds and fevers," Abramson said. "Patients should eat chicken soup, juice, anything with calories. Most importantly, I want my patients to drink lots of liquids. Dehydration is our key concern when dealing with sicknesses, especially in children, and especially with fevers."

Sickness dramatically elevates the amount of liquids our bodies require. Abramson sets guidelines of 36 degrees Celsius (96.8 degrees F) and 40 degrees Celsius (104 degrees F): If a child has a temperature at or colder than 96, he recommends upping fluid intake by 20 percent. If the thermometer reads 104 or greater, fluids should be increased by 30 percent.
Young children and babies must be closely monitored, he emphasized, because they can't verbally express hunger or thirst like older patients. If a child hasn't had anything to drink in a day, Abramson recommends seeing a doctor immediately. Any liquid is fine to drink, but drinking something with sugar and electrolytes, like Gatorade or soup broth, is better to replenish energy and lost sweat.

"Chicken soup is everyone's favorite, but it's not a miracle cure," Abramson said. "What it has is calories and salt, which your body needs. There has also been evidence that hot vapors from the soup can help clear congested nasal passages. And it is generally easy to stomach."

Nutrition is especially important because children don't have the fat stores of adults, meaning they need to be fed much more regularly than adults do.

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**In adults: Feed, but don't overfeed, colds and fevers**

Fevers and colds are much less common in adults than in children, due to our stronger immune systems, built from years of exposure to infections. (Meanwhile, every day at preschool, children are introduced to new pathogens.) Though there are many causes of fevers in children, almost all cases of fevers in adults are caused by a type of flu, according to Abramson. As with kids, adults need to be conscious of staying hydrated. But as far as eating goes, adults may need less food than we think.

"Starving is never a good idea," said Dr. Sharon Horesh Bergquist, an internist at Emory University. "However, we shouldn't be fixated on 'feeding a cold,' either. You should never force-feed a cold but rather eat when you're hungry."
What if you aren't hungry? Don't fret, Bergquist says. Losing an appetite is a common sickness behavior, and not eating until hunger pangs hit (even if they are infrequent) is not a bad thing for adults. When sickness symptoms include nausea, vomiting or diarrhea, it doesn’t make sense to continually force our bodies to ingest unwanted food, she said.

"Most of us have so much energy on reserve that we don’t need to replenish it for a while," Bergquist said. "Hydrating is much more important for fevers and colds. You should be consuming electrolytes, especially if you have a fever, but you can get those through liquids like sports drinks."

When the body is inflamed with a viral or bacterial infection, appetite is often suppressed in order to conserve energy. When less energy is needed to digest food, more energy can be used to fight the infection.

That said, some calories are still needed to support your body in its weakened state -- and choosing what to eat is important. Bergquist says to avoid high-fat foods, especially those with saturated fat, because they may skew the body’s balance of good and bad bacteria. A diet rich in high-fiber foods, vitamins (particularly A and C) and antioxidants is best for preventing and recovering from colds and flus.

Good news: Chicken soup fits the bill for feeding both sick children and adults.

"Chicken soup has all the dietary components we want," Bergquist said. "The warm liquid breaks down mucus, which is the first line of defense [of the infection]. Spices in soups can open up sinuses, while salty broth provides electrolytes. And vegetables in soups have antioxidants."

The type of infection -- viral or bacterial -- may dictate how much food you need. "With a virus, you are entirely dependent on your body to fight the infection," Bergquist said. "Without nutrients, your body can be severely debilitated."

In contrast, a recent study on rats found that when they had a viral infection and didn't eat, they all died. When the rats had a bacterial infection and didn't eat, however, they all survived. These results have led Yale University immunobiology professor Ruslan Medzhitov to suggest that the phrase "feed a virus, starve a bacteria" may have validity.

Still, much more research has to be done on humans before doctors recommend "starving" bacterial infections.
The bottom line

How should we rethink the phrase "feed a cold, starve a fever'? Abramson and Bergquist have some ideas.

"Feed a cold, feed a fever," Abramson said.

"Nurture your body, and never starve it," Bergquist agreed. "When you're sick, drink more than you think you need."