

Decoded: The Never Ending Hunt For a Cure For Common Cold

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When you have a cold, all you really want to do is really just curl up and die. I know this sounds dramatic, it just happens to be the truth. Now imagine having to take 10 screaming preteens to watch the film *Frozen 2* in this condition? And then having to survive the entire weekend with 'Into the Unknown' blasting on full in the car, in the house, in your ears.

Yes cold leaves you miserable, there is NO cure, steaming, inhaling, sipping tea and drinking that god-awful *haldi* milk really does nothing but gives you temporary relief. What you want is not chicken soup for your soul but for your cold.

So, why, for an ailment that has plagued the world from the beginning of time, is there no cure yet?

I am going to get to the bottom of it today:

What is Common Cold?

That name is a misnomer. The temperature really doesn't have much to do with it and it can be caused by over 200 types of viruses - so really not so common. A child may get it as many as 12 times a year. As an adult, you can get it whenever a virus takes a fancy to you. And yes, it will get to you - no matter how much you think you've protected yourself.

The viruses, each in their own unique style, attack your upper respiratory track, your nasal cavity, the pharynx and the larynx (basically the back of your month and your voice box).

The symptoms include a runny nose, sneezing, drowsiness, nasal congestion and sometimes a sore throat.

The first three days you are in transmission mode - walking around trying to spread the virus to anyone who comes near you (Yes, HR of companies, your employees should stay at home when they have a cold - 'oh but it's just a cold' is just unscientific.)

The next four days you begin to feel a tad better. The cold loses its steam by the 7th day.

How Do These Viruses Work?

The 200 odd viruses fall largely in these seven families - rhinoviruses, coronaviruses, influenza, parainfluenza, adenovirus, respiratory syncytial virus and metapneumovirus. They will enter your respiratory track and stick to the cells at the aback of your throat. From there they plan their attack - quickly reproducing and rupturing from the cells and spreading to other cells in the voice box and nasal cavity. Also Read: [FIT WebQoof: Do Certain OTC Cold Medicines Cause Strokes?](#)

Why Can't We Just Find a Cure?

And end our misery? The simple answer is there are so many viruses and they mutate quickly making a single line cure not possible. You can't have a vaccine because by the time you make one, the virus has mutated.

Just How Does It Spread?

In 1984, the good folk at the University of Wisconsin - Madison infected volunteers (how did they even convince these volunteers to willingly surrender to such misery?) with a cold virus. They then asked them to kiss healthy test subjects for at least one minute, according to this *The Guardian* article. On the mouth. (Again who were these 'healthy' volunteers?) Of the 16 who were kissed, only one got the infection. So umm, I guess you could make out when you are down with a cold. You won't necessarily pass it on. If you have a willing partner who really really loves you, that is.

The 'Cold' Market

The OTC drug market for common colds is booming - so is the so called 'wellness' market.

But, do they work? Paracetamol dosage is not enough, taking vitamin C will not give you relief, ginger will make you feel good, temporarily and hot toddies will give you a nice high.

Also, these are viruses. So no, antibiotics, that are meant to control the growth of bacteria (bacteria is not a virus) will not work. And you'll be doing a great disservice to humanity.

Prof Ramanan Laxminarayan, director of Centre for Disease, Dynamics, Economics and Policy, and a research scholar from Princeton University, had this to say to people who pop antibiotics to cure a viral infection.

Prof Ramanan Laxminarayan "All drugs have something called a placebo effect. The placebo effect is basically that if we believe the drug will work, it does a lot for us. In fact the effectiveness of the power of mind in healing ourselves is larger than the drug. We run placebo run trials where one set of patients are given actual drugs and the other set a placebo or a sugar pill. Next time you have a cold or viral infection just pop a sugar pill."

So... No Hope For Cold? Not Quite

Scroll back up to all those names of viruses I mentioned in the beginning of the article. Rhinovirus is the most influential family among all - it is responsible for 3/4th's of all colds. In the 1950s, there was an attempt made to create a vaccine to tackle the common cold - the vaccine was meant to be effective against rhinovirus. It failed simply because there are at least 160 different strains of rhinovirus. It's the same problem that still gives scientists and virologists a headache. How can one vaccine target 166 plus strains?

But, things looked up in 2017 when a group of scientists and respiratory specialists at Imperial College London started investigating if there was some part of the viral structure that was common to all. If they could build up an immune response to that structure, they would have the answer.

According to this article in *Scientific American*, There's another group of scientists at Meissa Vaccines who are looking at another approach. What if you could mix all the strains into one cocktails and target them all together?

This approach has worked well for both polio (3 strains) and pneumonia (23 strains). They are hoping to create a vaccine that targets 80 of the most common strains.

There are others still, immunologists, who are looking for a cure, after the infection has struck, and are looking at the body's own immune system for inspiration.

The latest in the series of 'near' cures has come from a group of virologists at Stanford, according to this [study](#). Rhinoviruses (the head of the mafia families that make up the cold viruses) themselves belong to a genus called enterovirus.

Enterovirus also leads to polio and other more serious diseases.

The scientists found a way to stop enteroviruses in their tracks by disabling a protein in mammalian cells. This is important because enteroviruses need these in order to replicate. If they can't replicate, they are just not effective.

Do We Even Need a Cure?

It's miserable, yes. It makes you feel low and puts you out of action for a few days, but it's not debilitating. It goes away with drugs in 7 days without in a week. So do we even need a cure?

Yes. Because medicine is supposed to protect the most vulnerable. For a healthy adult, it's a few days of misery. For a patient of Chronic Obstructive Pulmonary Disease, Cystic Fibrosis and other serious conditions, the cold can seriously impact recovery.