

Geetanjali Sharma Pggc-11, Chandigarh

#### ABSTRACT

Influenza, commonly called "the flu," is an illness caused by RNA viruses that infect the respiratory tract of many animals, birds, and humans. In most people, the infection results in the person getting a fever, cough, headache, and malaise (tired, no energy); some people also may develop a sore throat, nausea, vomiting, and diarrhea. The majority of individuals has symptoms for about one to two weeks and then recovers with no problems. However, compared with most other viral respiratory infections, such as the common cold, influenza (flu) infection can cause a more severe illness with a mortality rate (death rate) of about 0.1% of people who are infected with the virus.

**KEY WORDS** : Influenza , virus , H1N1, natural remedies , herbal plants

#### INTRODUCTION

In April 2009, a new influenza strain against which the world population has little or no immunity was isolated from humans in Mexico. It quickly spread throughout the world so fast that the WHO declared this new flu strain as the cause of a pandemic on June 11, 2009. This was the first declared flu pandemic in 41 years. Fortunately, there was a worldwide response that included vaccine production, good hygiene practices (especially hand washing) were emphasized, and the virus (H1N1) caused far less morbidity and mortality than was expected and predicted. A new influenza strain, H3N2, was identified in 2011, but this strain has caused only about 330 infections with one death in the U.S[1]. Another strain, H5N1, a bird flu virus, has been identified since 2003 and has caused about 650 human infections; this virus has not been detected in the U.S. and currently is not known to be easily spread among people in contrast to other flu strains. Unfortunately, people infected with H5N1 have a high death rate (about 60% of infected people die); currently, H5N1 is not readily transferred from person to person like other flu viruses.

#### Types of Viruses Causing flu

The flu is actually very different from a cold. While more than 100 different viruses can cause a cold, only influenza virus types A, B, and C cause the flu.

Type A and B viruses are responsible for the large flu epidemics. Type C flu virus is more stable and usually causes milder respiratory symptoms. While the flu vaccine can help protect you from type A and B flu viruses, there is no immunization or flu shot for type C virus[2,3].

Type A flu virus is divided into different subtypes based on the chemical structure of the virus. Type B flu virus is not divided into subtypes. Both type A and type B flu viruses are responsible for the seasonal outbreaks of flu.

Type A flu viruses are found in many different animals, including ducks, chickens, pigs, whales, horses, and seals. Influenza B viruses circulate widely only among humans.

### How Is the Flu Virus Spread?

The flu is a highly contagious disease. The flu virus is spread when you either inhale infected droplets in the air (spread when an infected person coughs or sneezes) or when you come in direct contact with an infected person's secretions (by kissing, touching, and sharing objects such as silverware). You can also transfer the flu virus to your hands by touching smooth surfaces such as doorknobs, handles, television remotes, computer keyboards, and telephones. Then when you touch your hands to your nose, eyes, or mouth, the flu virus gets absorbed.

### Why Do People Usually Get the Flu in Winter?

Flu outbreaks occur more frequently in the winter months. Many factors may play a role in the flu's seasonal pattern including. The flu virus survives for longer periods indoors in winter because the relative humidity of indoor air is very low in comparison to the outside air. The flu virus may stay suspended in the air for prolonged periods and thus infect others by being inhaled. The flu virus droplets can also infect by landing on sensitive body areas such as the eyes, nose, or mouth. In winter, humans tend to be indoors more and thus have closer contact with each other, which makes it easier for the flu virus to spread[4].

### Symptoms and Complications of Influenza

Initial flu symptoms include headaches, chills, and a cough. Symptoms such as fever, loss of appetite, and muscle aches soon follow. Other symptoms such as nausea, vomiting, and diarrhea are rare in adults but more common in children[5].

Since many people think they have the flu when it's actually a bad cold, here's a quick guide to help you tell the difference:

Symptom	Cold	Flu
fever	uncommon	usually present, high (38°C to 41°C or 102°F to 104°F); lasts 3 to 4 days
headache	uncommon	very common
aches and pains	slight	common and often severe
fatigue and weakness	mild	significant; can last 2 to 3 weeks
extreme exhaustion	never	very common at the start
stuffy nose	common	sometimes
sneezing	common	sometimes
sore throat	common	sometimes
chest discomfort and cough	mild to moderate, hacking cough	common; often severe with painful cough

**For most people, the flu lasts 1 or 2 weeks, but it can last for up to 1 month.** The main complications are secondary bacterial infections of the sinuses or lungs (pneumonia). Symptoms include fever; chills;

and yellow, green, or brown sputum (nasal discharge). Children are prone to ear infections like otitis media. People in nursing homes are at a higher risk of complications from flu because they may have weak immune systems and often have other medical problems. People with asthma, chronic obstructive pulmonary disease, or congestive heart failure are also at a higher risk of developing bacterial infections like pneumonia.

**High-risk groups for flu complications include:**

Anyone aged 65 years or older, young children under 5 years old (especially if they are less than 2 years old) people with underlying medical conditions, including people with: asthma and other chronic lung diseases, diabetes heart disease (e.g., coronary artery disease, congestive heart failure, congenital heart disease) chronic kidney or liver disease a weakened immune system which can be caused by: HIV/AIDS, an infection that attacks the immunesystem ,cancer medications for certain conditions, such as: organ transplants: steroids, medications that suppress the immune system to prevent it from rejecting the organ cancer: chemotherapy certain types of arthritis, such as rheumatoid arthritis: steroids, biologics, medications that suppress the immune system to prevent it from attacking the body Crohn's disease: steroids, biologics or medications to suppress the immune system blood disorders neurologic and neurodevelopment disorders that affect their ability to swallow and breathe morbid obesity residents of nursing homes or other chronic care facilities, regardless of age children receiving long-term ASA therapy pregnant women and women who were recently pregnant[6].

**Natural cold and flu remedies**

Having a cold or getting flu can really make one feel rotten. There are things you can do to help speed up recovery if you catch one. Also there are things you can do to try and minimise or prevent one in the first place. The same herbs that keep colds and flu at bay can also help you get rid of it faster. The common cold is caused by any one of 200 different viruses. When infection occurs, the walls of the respiratory tract swell and produce excess mucus, giving rise to the typical cold symptoms. Symptoms range from sore throat, running nose, and nasal congestion, watery eyes to hacking cough, headache, and fever. Most colds run their course in 7-10 days. Recurrent colds (almost constantly suffering) may indicate a lowered immune capacity and too much stress and often not enough sleep [7].

Colds spread from person to person and are highly contagious. Coughing, sneezing or hand to hand contact will easily pass the virus on. The virus can also live for several hours on everyday surfaces.

**Echinacea** - One particular herb has recently had a lot of press coverage and marketing as a 'new' cure for colds. Echinacea has in fact been used by America Indians for hundreds of years. A key thing with Echinacea is that the quality of the actual herbal Echinacea is vitally important. The only way to know if

something like Echinacea can help or not is to try it. But do not buy a cheap, watered down Echinacea or one that is old. It will be a waste of money and you will be disappointed. Ensure the herb is fresh. Colds can take hold for many reasons and things such as stress, lack of sleep, poor nutrition, or anxiety or worry over something can all make you more susceptible. So if these other factors are not also looked at and handled, a cold can drag on. Echinacea is originally from the North America Plains, but varieties of the species are now found on most continents. Echinacea increases levels of properdin in the body. Perpedin is a chemical which stimulates some of the internal protective mechanisms the immune system responsible. Importantly it seems to strengthen the defence mechanisms which protect the body against bacterial attacks and viruses. Its anti-bacterial effect makes it a good herb for treating many viral and bacterial infections. Echinacea is also an excellent blood cleanser, it helps to sweep dead cells and other debris through the channels of the lymphatic system. And dispatches white blood cells to fight the infection.

### **Garlic**

No treatment of colds would be complete without Garlic and Ginger. Garlic has a distinctive taste and smell and it was very highly thought of by the ancient Egyptians, who ensured that the slaves building the Great Pyramids at Cheops were given a daily supply. The Romans also acknowledged garlic's strengthening powers and fed it to their soldiers before battle. Garlic has anti-bacterial properties that help the immune system to fight infection, it is an excellent boost to the immune system. The reason for this is garlic contains several helpful compounds, including allicin, one of the plant kingdom's most potent antibiotics. Garlic combines well with Echinacea and together makes a strong fighting force against infections. Onion is a close relative of Garlic and has similar properties, containing similar antiviral chemicals [8,9].

### **Ginger**

Ginger is another of nature's antiviral herbs. It contains nearly a dozen antiviral compounds. Ginger is pain relieving, antiseptic and antioxidant. It is valuable for preventing and treating colds, sore throats and inflammation of mucus membranes.

Ginger reduces pain and fever and has a mild sedative effect that will encourage rest. And it is tasty, Drink a tea, or soak fresh ginger in hot water, take as a tincture and include it in your food. Ginger is also delicious in a fruit smoothy (a mix of soft chilled fruits put in a blender).

### **Vitamin C**

Some people seem to take pot shots at vitamin C saying it doesn't help or that it just gets urinated out. They seem to have a fixed idea about it. This is rather negative because for a lot of people it can be very

helpful. Once again there are many factors that contribute to determine how long a cold will last or how severe it will be. You have to look at the whole picture and see what you can do to speed things up. Vitamin C is very good for the relief of cold symptoms and to help the body fight infection. The best source of vitamins is always fresh fruit and vegetables. Citrus fruit is especially high in vitamin C. Combine orange, pineapple, seedless grapes, and lots of fresh ginger, banana, pink grapefruit, and cantaloupe in a blender. Add orange juice if more liquid is needed. This not only makes a delicious drink, but is healthy and fights that cold.

### **Goldenseal**

Goldenseal is both antiseptic and immune stimulating, increasing blood supply to the spleen. The spleen is the bodies' staging area for the fighting cells in your immune system. Berberine is present in goldenseal, and activates macrophages (special white blood cells), which are responsible for destruction of bacteria, fungi, viruses and tumour cells.

### **CONCLUSION**

When we have a cold or flu our body is under a lot of stress, fighting the viral infection. Big, heavy meals take vital energy to digest, resources which your body could be using to fight the infections. Old saying states "Feed a cold and starve a fever". A better saying is "Starve a cold **and** starve a fever". The best thing to do is drink plenty of liquids - water, fruit juices and if needed soups, but stay away from heavy and highly processed food. High liquid intake is important as the body uses water to carry waste products and toxins to your elimination systems. Sometimes we may feel like eating some "junk" food to try and cheer yourself up, but the downside is that your already overworked body will have to try and process it and get no energy in return. So think twice about junk food when we are feeling low.

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