# COLD, FLU, OR RSV

# What is the difference between the common cold, the flu, and RSV?

- The common cold is caused by the rhinovirus and comes with milder symptoms.
- The flu is caused by the influenza virus and leads to high fevers, coughing, body aches and other respiratory symptoms.
- RSV is a result of the respiratory syncytial virus, which can affect the respiratory system, including the nose, throat and lungs. It usually presents like a cold but in some it can be dangerous.

# Transmission - viruses spread by:

#### 1. Direct contact

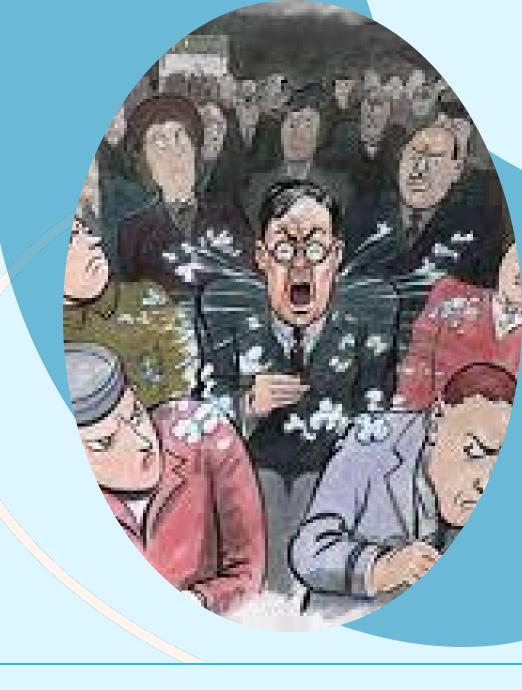
- spreads via hands
- can stay alive on skin for 2 hours

#### 2. Indirect contact

- survive on surfaces for several hours
- spreads by touching the surface, then the mouth, nose, or eyes

#### 3. Inhaling viral particles

- droplets containing viral particles are breathed, coughed, or sneezed into the air
- transmitted to others when a person is standing close, and droplets touch the person's eye, nose, or mouth.







Refers to a minor upper respiratory infection that is self-limited.

Colds are caused by many viruses, which cause similar symptoms.

The average person has two or three colds a year.

#### **Cold Transmission:**



- 1. Persons with colds shed viruses the most on the second day of illness, however, low levels of viral shedding may persist for up to two weeks.
- 2. Saliva generally does not spread the common cold virus as most people with a cold have no detectable virus in their saliva.
- 3. Recirculated air versus fresh air ventilation shows no difference in the number of colds contracted.

#### **Risk Factors**

There are some factors that can increase the risk and severity of illness with a cold.

There is no scientific basis for the belief that a cold climate increases susceptibility to getting a respiratory illness.



#### **Increased Risk with:**

- 1. Psychological stress
- 2. Lack of sleep or sleep disturbances
- 3. Exposure to children in daycare settings







## Increased Severity with:

- 1. Underlying chronic diseases
- 2. Immunodeficiency disorders
- 3. Malnutrition
- 4. Cigarette smoking

## **Symptoms**

- ✓ Rhinitis and runny nose the most common symptoms,
- ✓ Sore throat, sneezing, and cough.
- ✓ Purulent (colored, thick, containing pus) drainage can be seen with both a cold and sinus infection.





#### **Incubation Period**

• From the time of contact until onset of symptoms is generally 24 to 72 hours but can be as early as 10 to 12 hours after exposure.

#### **Duration**

• Symptoms usually last 3 to 10 days but can last up to two weeks in some people.

## Complications

- Acute sinus infections are a rare complication in adults with colds.
- Viral sinusitis occurs more frequently than secondary bacterial sinusitis.
- Viral sinusitis will resolve within 3 weeks without antibiotic treatment.



- Acute asthma attacks
   occur with colds thought
   to be due to changes in
   airway reactivity which
   can last up to four weeks
   following an infection.
- Because colds cause problems with drainage and pressure regulation of the middle ear, an acute ear infection (otitis media) can occur.

#### **Treatment of Colds:**

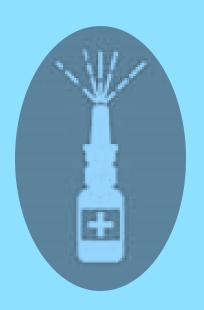
Therapy is aimed at treating symptoms for those with moderate to severe illness.

- 1. Analgesics: acetaminophen & NSAIDS are effective for treating headaches, muscles aches, etc.
- 2. Cromolyn sodium may relieve runny nose, cough, and sneezing.
- 3. Intranasal ipratropium bromide may improve symptoms of runny nose and sneezing though has no effect on congestion.

# Therapies with Minimal or Uncertain Benefit:

- 1. Dextromethorphan-minimally effective in controlling cough.
- 2. Oral decongestants may provide a small decrease in symptoms.
- 3. Decongestant nasal sprays may show some benefit but must be limited to 2-3 days of use due to "rebound syndrome". Several side effects including nosebleeds, agitation, and insomnia associated with use.
- 4. Expectorants such as Mucinex may provide some relief.







## **Ineffective Therapies**

- 1. Antibiotic therapy is not indicated nor appropriate as antibiotics do not treat viruses.
- 2. Antihistamine use alone is of minimal benefit and frequently results in troublesome side effects such as sedation and dryness.
- 3. Antiviral therapies show that they may help in the case of rhinovirus but not other causes of the common cold and there are side effects associated with use.



#### **Home Remedies**

 Vitamin C is often touted as a natural remedy for the common cold however research shows that it has little, if any, effect on symptoms.



- Although codeine is effective in suppressing chronic cough, trials in patients with acute cough due to the common cold have found no consistent benefit of codeine compared with placebo
- The use of heated, humidified air has not been shown to be very effective in management of the common cold.

#### More on Home Remedies:

- Honey studies have shown that this can reduce cough frequency and severity.
- Zinc-may reduce some symptoms if taken at a dose higher than 75 mg daily but has side effects of nausea and having a bad taste in the mouth.
- Intra nasal zinc (Zicam) associated with a high risk of permanent loss of sense of smell.





#### Common Cold Prevention:

- Practice good hand hygiene.
- Avoid touching eyes, nose, and mouth.
- Stay home if sick.



- Avoid contactwith sickpeople.
- Wear face masks.
- Sanitize
   environment
   once you are
   better.





#### The Flu

- The flu is an infection that can cause fever, cough, body aches, and other symptoms.
- It is often difficult to differentiate flu symptoms from symptoms caused by the common cold.
- There are two forms of seasonal flu: Type A and Type B.
- All forms of flu are caused by viruses therefore transmission is the same as for the common cold.

#### COLD SYMPTOMS

## **COLD or FLU?**

#### FLU SYMPTOMS







sneezing



cough



runny nose



lacrimation



sore throat



heat



weakness



headache



drowsiness



increased sweating



muscle pain

## Flu Severity

The flu affects people in different ways.

- Most people recover in 1 to 2 weeks.
- Some require hospitalization
- Some may die from it.

People at higher risk of getting very sick from the flu include:

- People 65 or older
- Young children (under 5 years and especially under 2)
- Pregnant people
- People with certain medical problems



# Treating the Flu:



Treating symptoms can help someone feel better but will not make it go away faster.

- Rest until the flu is fully resolved, especially if the illness has been severe.
- Drink enough fluids to prevent dehydration.
- Take acetaminophen to relieve fever, headache, and muscle aches.

Antiviral medications can reduce the severity of symptoms and can reduce the duration of symptoms by about one day.

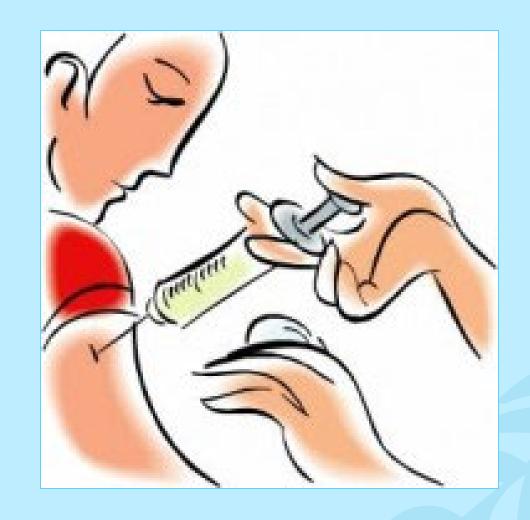
• Those with severe illness and/or have risk factors for developing complications of influenza, are usually treated with an antiviral agent.

#### Flu Prevention

The most effective way to prevent influenza (flu) is:

- 1. by getting a yearly flu shot.
- 2. practicing good hand hygiene.

Antiviral medicines can also help prevent infection after exposure.





## RSV = respiratory syncytial virus

RSV causes infections of the lungs and respiratory tract.

It is common; most people have been infected by age 2.

It causes seasonal outbreaks from October through May in North America.

Healthy adults are infected with RSV repeatedly throughout their lives.

#### **RSV Risk Factors**

RSV generally causes a self-limited upper respiratory infection; however, some people have an increased risk for developing a severe lower respiratory tract infection (pneumonia).

Increased risk is seen in those with:

- o Down's Syndrome
- o Immunocompromise
- o Persistent asthma
- Cardiopulmonary disease



 Increased risk is also seen in older adults who are institutionalized or have a chronic functional disability.

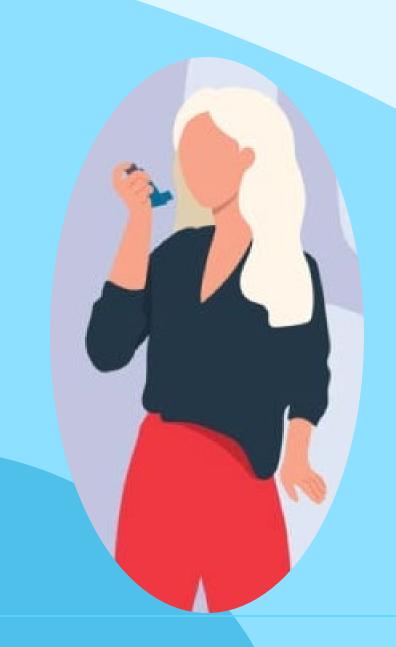
### **RSV Symptoms**

#### Upper respiratory tract:

- ✓ Cough
- ✓ Rhinitis and runny nose
- ✓ Conjunctivitis

#### Lower respiratory tract:

- ✓ Bronchitis
- ✓ Pneumonia
- ✓ Wheezing
- ✓ Shortness of breath
- ✓ Asthma exacerbation
- ✓ COPD exacerbation



## RSV vs. Flu

RSS

#### SYMPTOMS

- Runny nose
- Coughing
- Fever
- Appetite decrease
- Dehydration

# FE

#### SYMPTOMS

- Fever or chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or body aches
- Headaches
- Fatigue (tiredness)
- Vomiting and diarrhea



#### **Incubation Period**

• Symptoms usually develop within 4 to 6 days after contact.

#### **Duration**

• People usually recover within one to two weeks.

## **Treating RSV:**

- Mild symptoms will resolve in a week or two.
- ☐ OTC fever reducers and pain relievers will help manage symptoms.
- Rest is important to help the body fight the illness. rink enough fluids to prevent dehydration.
- Mechanical ventilation may be required in patients with severe respiratory symptoms and/or apnea due to RSV.







#### **RSV Prevention**



- The usual measures for preventing transmission of viruses apply such as hand hygiene, covering a cough, etc.
- A respiratory syncytial virus vaccine, or RSV vaccine, is a vaccine that protects against respiratory syncytial virus.
- The CDC recommends that adults aged 65 and older get an RSV vaccine.

## Cold, Flu, or RSV

Thank you

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