



Influenza A

&

Respiratory Hygiene

Vicki Denyer

Infection Prevention & Control CNC



The word *Influenza* meaning "influence" and refers to the cause of the disease;

Initially, this ascribed illness to unfavorable astrological influences

Changes in medical thought led to its modification to *influenza del freddo*, meaning "influence of the cold".



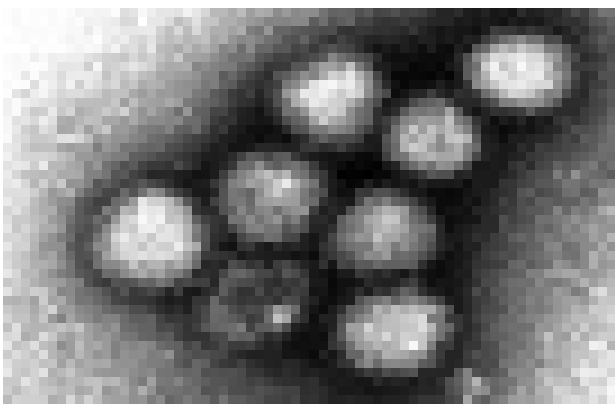
PREVENT DISEASE



**CARELESS
SPITTING, COUGHING, SNEEZING,
SPREAD INFLUENZA
and TUBERCULOSIS**



Three types of influenza viruses affect people.
These are Type A, Type B, and Type C.

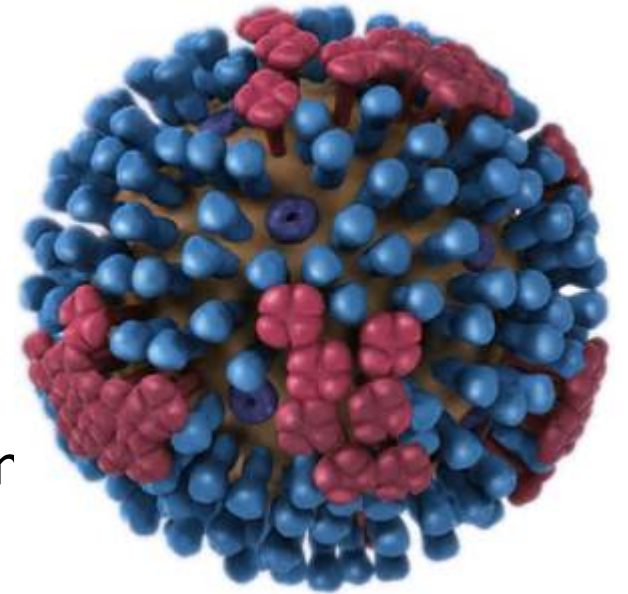


Virology

- Structure of the influenza virion.
 - The hemagglutinin (HA) and neuraminidase (NA) proteins are shown on the surface of the particle.
 - The viral RNAs that make up the genome are shown as red coils inside the particle and bound to Ribonuclear Proteins (RNPs).
 - In virus classification influenza viruses are RNA viruses that make up three of the five genera of the family Orthomyxoviridae
-
- Influenza virus A
 - Influenza virus B
 - Influenza virus C
-
- These viruses are only distantly related to the human parainfluenza viruses

Influenza A

Is the most virulent human pathogens amongst the three influer types & can cause the greatest disease!

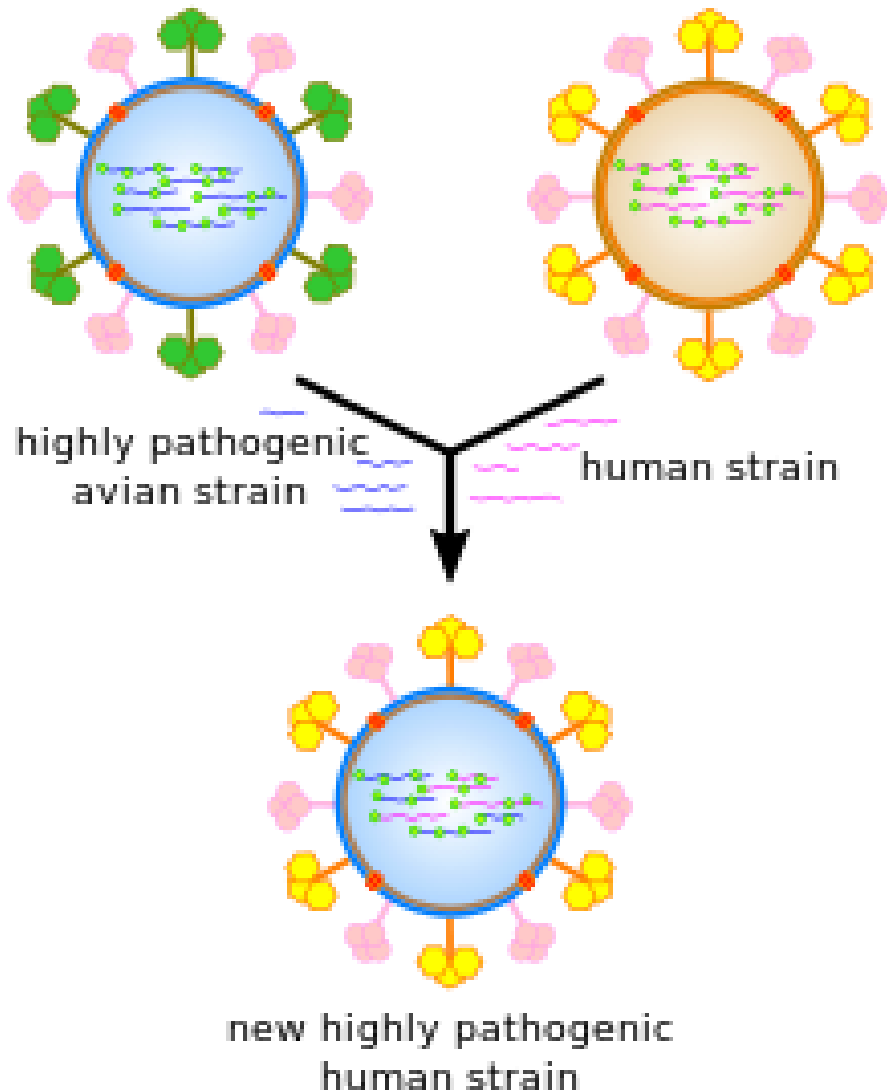


Subdivided into serotypes based on the antibody response to theses viruses

These serotypes that can be confirmed in humans-in order by the number of known human pandemic deaths are:

- [H1N1](#), which caused [Spanish Flu](#) in 1918, and [Swine Flu](#) in 2009
- [H2N2](#), which caused [Asian Flu](#) in 1957
- [H3N2](#), which caused [Hong Kong Flu](#) in 1968
- [H5N1](#), which caused [Bird Flu](#) in 2004 (Avian Flu)
- [H7N7](#), which has unusual [zoonotic](#) potential^[43]
- [H1N2](#), endemic in humans, pigs and birds
- [H9N2](#), (Asian) –highly virulent to poultry
- [H7N2](#)
- [H7N3](#)
- [H10N7](#)
- [H7N9](#)-2013-reported 3 influenza infections in humans

Flu Pandemics



Antigenic shift, or reassortment, can result in novel and highly pathogenic strains of human influenza

Transmission



When an infected person sneezes or coughs more than half a million virus particles can be spread to those close by !

In otherwise healthy adults, influenza virus shedding (the time during which a person might be infectious to another person) increases sharply one-half to one day after infection, peaks on day 2 and persists for an average total duration of 5 days—but can persist as long as 9 days

Children are much more infectious than adults and shed virus from just before they develop symptoms until two weeks after infection

In immunocompromised people, viral shedding can continue for longer than two weeks

Transmission

- 1. Direct Transmission



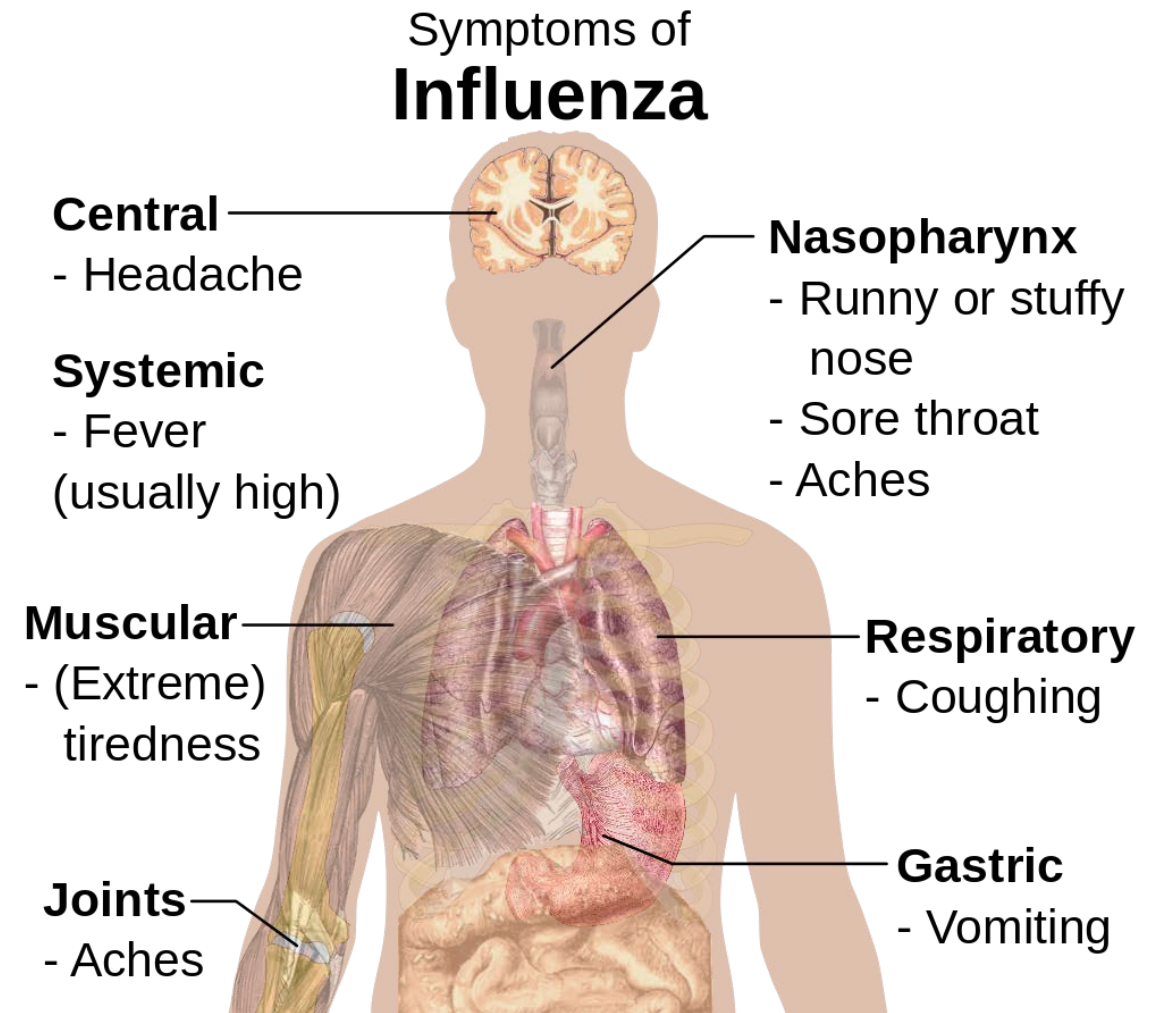
- 2. Airborne



- 3. Contact



- Symptoms can be mild to severe.
- Signs include fever, runny nose, sore throat, muscular pains ,headaches, coughing & feeling tired
In children there may also be nausea & vomiting
- Complications of influenza may include [Viral pneumonia](#) , secondary [bacterial pneumonia](#), [sinus infections](#), and worsening of previous health problems such as [asthma](#) or [heart failure](#).



How long will the influenza virus survive outside the body?



Can remain infectious for several hours

On surface it will vary

Survive from 1-2 days on non porous surfaces such as plastic & metal

Around 15 minutes from dry paper tissues & 5 minutes on skin

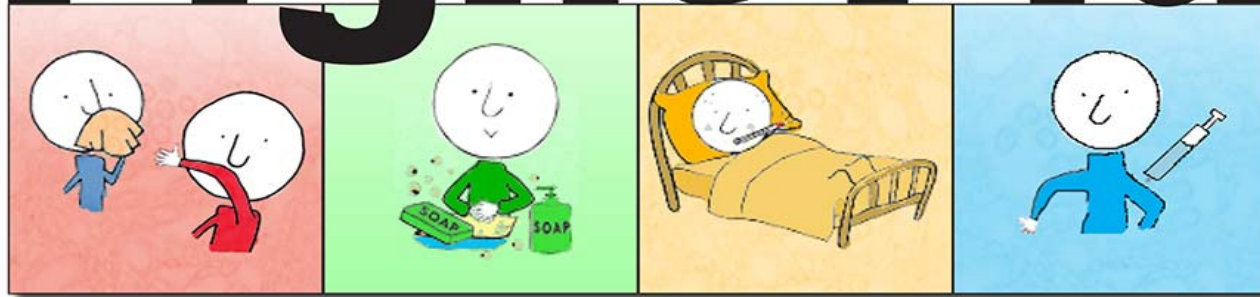
Easily transmitted on doorknobs, light switches & other household items

Note: If virus is present in mucous –this actually will protect for longer period – up to 15 days on bank notes



INFECTION PREVENTION & CONTROL

Fight the Flu



**Cover
your
cough!**

**Wash
your
hands.**

**Stay home
when sick.**

**Get
vaccinated.**

Your city or county
public health department

Find a Flu Shot Clinic near you at
www.mdhflu.com

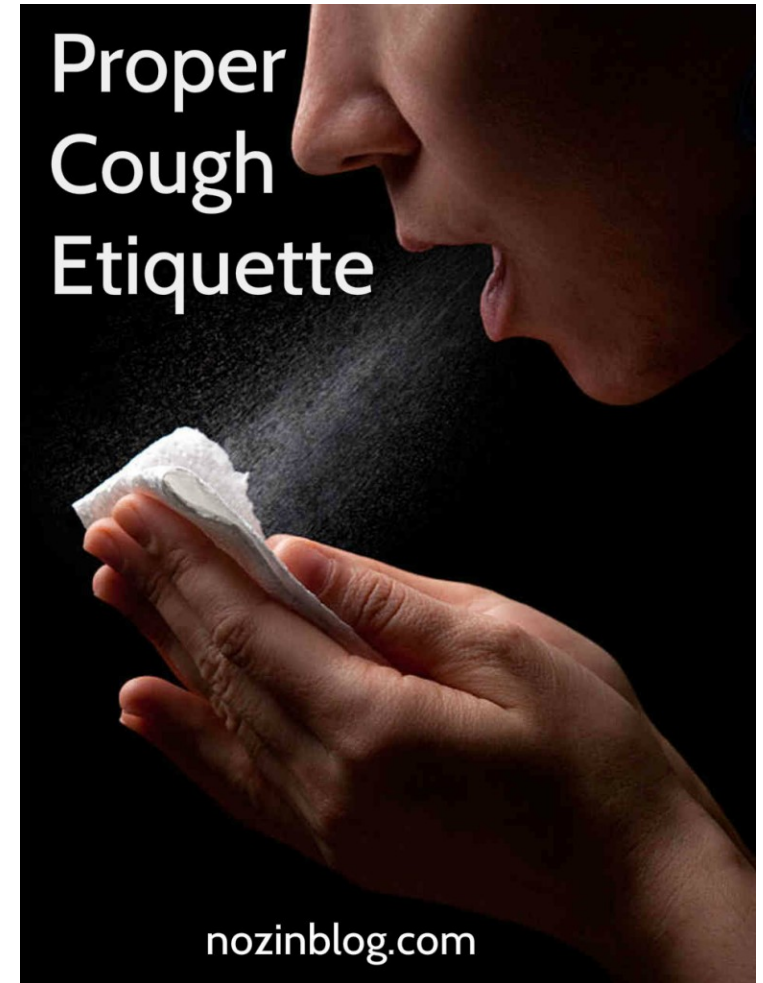


- Cough Etiquettes
- Good Hand Hygiene &
- Personal Health Habits
- Avoid touching eyes/nose/mouth
- Avoid spitting
- Stay at home
- Annual flu vaccination
- If in close contact with others consider wearing a mask (not cloth)
- Good cleaning of commonly touched surfaces



Cough Etiquettes

- Provide patient/client with the following
- Water
- Tissues
- ABHR
- Plastic bag
- To enable them to also look after themselves
- & reduce cross infection



Stop the spread of germs that make you and others sick!

Cover your Cough



Cover your mouth and nose with a tissue when you cough or sneeze or cough or sneeze into your upper sleeve, not your hands.



Put your used tissue in the waste basket.



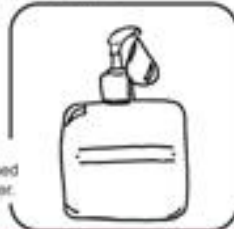
Clean your Hands

after coughing or sneezing.



Wash hands with soap and warm water for 20 seconds

or clean with alcohol-based hand cleaner.



Cover your cough and sneeze



Wash your hands often and immediately after coughing or sneezing



When you cough or sneeze...



- cover your cough with a tissue or your arm
- put used tissues in the waste basket
- clean your hands with soap and water or alcohol-based hand cleaner



Region of Peel
Working for you
Public Health

Flu Vaccination Facts

The seasonal flu vaccine protects against the influenza viruses that research indicates will be most common during the upcoming season

TRIVALENT vaccines- are made to protect against 3 flu viruses

- Influenza A (H1N1) virus
- Influenza A (H3N2) virus
- Influenza B virus

- Quadrivalent vaccines protect against 4 virus
- The same as above as well as an additional B virus

Flu Vaccines CANNOT cause the flu!

Flu vaccines are safe.



Thank you



Any questions.....