

# InFLUencing Healthy Choices in the Fight Against Influenza



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Childhood Influenza  
Immunization Coalition  
The Power of One Strong Voice

**PREVENT** CHILDHOODINFLUENZA.ORG



National  
Foundation for  
Infectious  
Diseases

# Welcome and Introductions

- **SPEAKER'S NAME**

- **AFFILIATION**

- Key points about affiliation

- **PreventChildhoodInfluenza.org**

- PreventChildhoodInfluenza.org is an initiative of the National Foundation for Infectious Diseases (NFID). NFID is a leading advocate for childhood influenza immunization and has convened more than 30 leading public health, medical, patient and parent groups, including [INSERT ORGANIZATION] to increase awareness about influenza vaccination and encourage healthy choices. Members include:

Allergy & Asthma Network Mothers of Asthmatics (AANMA)

American Academy of Pediatrics (AAP)

American Academy of Physician Assistants (AAPA)

American College of Cardiology (ACC)

American College of Obstetricians and Gynecologists (ACOG)

American Lung Association

American Medical Association (AMA)

American Pharmacists Association (APhA)

American Public Health Association (APHA)

Association of State and Territorial Health Officials (ASTHO)

Asthma and Allergy Foundation of America (AAFA)

Canyon Ranch Institute

Center for Vaccine Awareness and Research at the Texas Children's Hospital

Centers for Disease Control and Prevention (CDC)

Every Child By Two (ECBT)

Families Fighting Flu, Inc.

Health Industry Distributors Association (HIDA)

Kaiser Permanente-Northern California

Immune Deficiency Foundation (IDF)

Immunization Action Coalition (IAC)

National Association for the Education of Young Children (NAEYC)

National Association of Community Health Centers (NACHC)

National Association of County and City Health Officials (NACCHO)

National Association of Pediatric Nurse Practitioners (NAPNAP)

National Association of School Nurses (NASN)

National Foundation for Infectious Diseases (NFID)

National Hispanic Medical Association (NHMA)

National Medical Association (NMA)

Parents of Kids with Infectious Diseases (PKIDs)

Sealy Center for Vaccine Development at UTMB

Society for Adolescent Health and Medicine (SAHM)

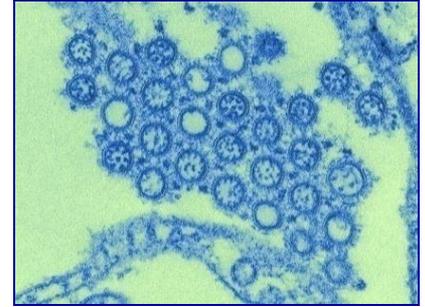
Vaccine Education Center at The Children's Hospital of Philadelphia

# Why We're Here Today

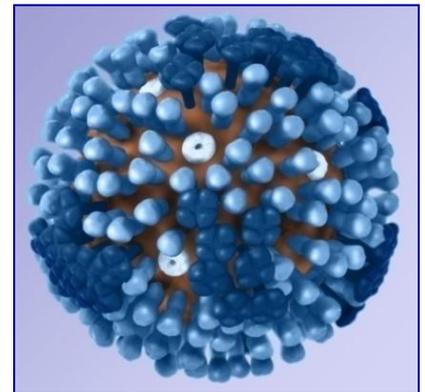
- Understand the serious, unpredictable nature of influenza and its impact on children
- Discuss the benefits of vaccination in preventing influenza and protecting our kids health
- Explore steps you can take to make flu prevention a health priority in your family and community

# What is Influenza?

- Influenza, also known as the flu, is a contagious infectious disease that can cause mild to severe illness to life-threatening complications, even in healthy children and adults
- Caused by two types of influenza viruses—A and B—that spread through contact with respiratory droplets, such as those from sneezing or coughing
- Viruses circulate on a seasonal pattern in the US [October through May—typically peaking in February<sup>1</sup>]
- Severity varies each season, based on type of virus circulating and how easily is it transmitted



Transmission electron micrograph depicting numbers of virions from a Novel Flu H1N1 isolate. CDC/ Cynthia Goldsmith



3D representation of a generic influenza virion's ultrastructure. CDC/ Doug Jordan, M.A. 2010

# Why is Influenza Vaccination so Important?

- Influenza is the leading cause of vaccine-preventable death in the US
- In the US, 5-20 percent are infected with influenza annually<sup>2</sup>
  - 3,300 to 49,000 deaths each year, depending on the severity of the circulating viruses<sup>3</sup>
  - 114,000 hospitalizations annually<sup>4</sup>
- Even healthy people can get very sick from the flu, develop serious complications, infect others

**Vaccination is safe; it is the most effective preventive health action with benefits for everyone**

# How Does Influenza Impact Children?

- Anyone can get influenza but rates of infection highest among school-aged children<sup>5</sup>
  - Each year about 20,000 children are hospitalized and 100 children die from flu in the US, nearly half of whom were previously healthy<sup>6</sup>
- Younger children—infants and toddlers—are at increased risk of serious complications, including hospitalization and even death
- Preschool age children are “great transmitters” of influenza to others in their community, including family
- Flu is more dangerous than the common cold for children



# Don't Confuse Influenza with the Common Cold

- **Influenza can come on very suddenly**
- **It can cause a range of symptoms and effects from mild to severe illnesses to life-threatening complications, even in healthy children and adults. Symptoms include:**
  - Fever
  - Muscle aches
  - Extreme tiredness
  - Headache
  - Sore throat
  - Runny or stuffy nose
  - Dry cough
  - Children may have additional symptoms such as ear aches, nausea, vomiting, and diarrhea

# How Does Influenza Enter the Body?

Influenza is spread easily from person to person; when someone who has it sneezes, coughs or even talks, the virus passes into the air and can be breathed in by anyone close by.

While largely confined to bronchial tubes and lungs, influenza can extend through entire body

The infection causes cells in the immune system to release protein molecules called “cytokines”. These molecules can increase or decrease inflammation, which can affect the entire body

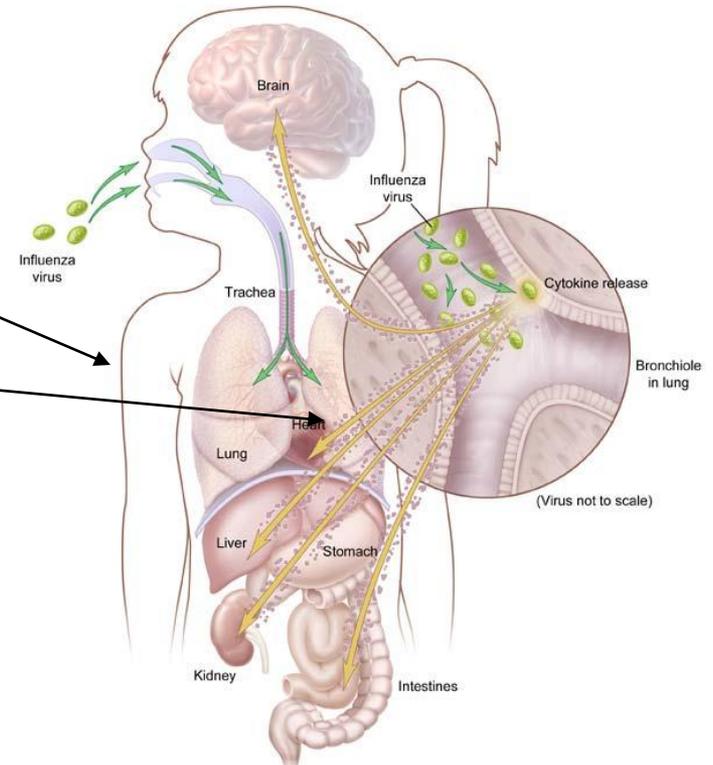
This can lead to complications like inflammation and even destruction of muscle tissue; inflammation of the heart muscle itself and the membrane that covers the heart

## Definitions

**Cytokine:** protein released by the immune system; helps regulate inflammation

**Bronchiole:** small lung passages that help deliver oxygen to the body

**Influenza:** an acute, highly contagious viral disease



Courtesy of the National Foundation for Infectious Diseases



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# Who Should Get Vaccinated: CDC Universal Recommendation

- Annual seasonal influenza vaccine recommended for **everyone** age 6 months and older
- Those at highest risk of complications from influenza:
  - **Infants younger than 6 months** cannot be vaccinated
    - Infants benefit from mothers through placenta, breast milk
    - Vaccinate parents, siblings, caretakers to avoid infecting baby
  - **Pregnant women** at risk for severe illness, premature labor, delivery
    - Vaccination protects mother and unborn baby
    - Can get vaccinated during any trimester
  - **Anyone with chronic medical conditions** such as heart disease, asthma, diabetes
  - **People 50 years of age and older**
  - **Residents of nursing homes and chronic-care facilities**
  - **Children with neurological and neurodevelopmental conditions**

# Influenza Vaccine Recommendations

- There are several vaccine options, two of which are available for children:
  - Injected vaccine
    - Made from virus that has been grown and then killed
    - Approved for everyone 6 months and older
  - Nasal spray vaccine
    - Made from a weakened live virus
    - Approved for healthy people 2 - 49 years of age
    - Not recommended for pregnant women
- Some children age 6 months through 8 years may require more than one dose of influenza vaccine to be fully protected
- You should be vaccinated as soon as vaccine is available in your community
  - Influenza season can start as early as October and end as late as May
  - If you don't get vaccinated early in the season, get vaccinated as soon as possible
  - Immunity from vaccination continues to be protective throughout fall and winter



# Be FLUent with These 5 Flu Facts...

- Even healthy kids can be hospitalized or die because of influenza
- Nobody is naturally immune; the influenza vaccine works with your child's immune system to build their resistance
- Hand washing helps stop germs from spreading, but it's not enough for airborne diseases like influenza; vaccines are needed
- Influenza vaccines are thoroughly tested each year and provide safe and effective protection
- Keep your kids in school and yourself at work this season.

***Do your part: vaccinate your entire family for influenza***

## PreventChildhoodInfluenza.org

The CIIC website provides pediatric-focused information on influenza and annual vaccination for:

- Families & Caregivers
- Healthcare Professionals
- Media

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# Questions and Answers



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# Influenza & Pregnancy

- Risks from influenza during pregnancy<sup>7</sup>
  - Severe illness from influenza in pregnancy is more likely than in non-pregnant women
  - Changes in immune system, heart, lungs make women more prone to severe illness from influenza
  - Risk of premature labor and delivery increases in pregnant women with influenza
  
- Benefits of vaccination during pregnancy
  - Vaccine is safe for pregnant women
  - Protects mother and infant (up to 6 months old) from influenza
    - Baby's system is protected through mother's placenta, breast milk
  - Can be administered during any trimester

# Evolving Virus Strains

- Influenza viruses continuously evolve as they circulate across the globe
- Constant evolution is one way the disease evades the body's immune system
  - This is why a new vaccine is needed each year to prevent influenza
- Change occurs in two ways:<sup>8</sup>
  - Antigenic drift— more common, more gradual change
  - Antigenic shift — less common, more abrupt change
    - Occurs in influenza type A viruses
    - Can result in a new virus sub-type to which humans have little or no immunity
    - If easily transmitted, pandemic is possible

# Places to Get Vaccinated

- There are many places to get vaccinated; find out who offers influenza vaccination in your area
  - Doctor's office
  - Local pharmacy
  - Schools
  - Work
- [Insert Resources from your organization, if applicable]
- Flu Finder: [Flu.gov/WhereYouLive](http://Flu.gov/WhereYouLive) can help you locate a site near you



# Heart Disease & Influenza

- Serious complications such as death from influenza is more common in people with heart disease than any other chronic condition<sup>9</sup>
- Influenza can lead to a heart attack in patients with heart disease
- Influenza vaccination can reduce the risk of heart attacks
- If you have heart disease, talk to your doctor about getting vaccinated

# Influenza & Children With Neurologic Conditions

- Children of any age with neurologic conditions, including those listed below, are more likely to become very sick if they get the flu. Complications may vary and can include pneumonia and even death.
  - Disorders of the brain and spinal cord
  - Cerebral palsy
  - Epilepsy (seizure disorders)
  - Stroke
  - Intellectual disability
  - Moderate to severe developmental delay
  - Muscular dystrophy
  - Spinal cord injury
- Children with neurologic conditions should only get the flu shot, not the nasal spray vaccine.<sup>10</sup>

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