



# PA Project Firstline Newsletter

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## It's Flu Season: 2021-2022 Edition

Influenza (flu) is a contagious respiratory illness caused by a virus that infects the nose, throat, and lungs. Some people, such as older people, young children, and people with certain health conditions, are at higher risk of serious flu complications. There are two main types of influenza (flu) viruses: Types A and B. The influenza A and B viruses that routinely spread in people (human influenza viruses) are responsible for seasonal flu epidemics each year. **The best way to reduce the risk of flu and its potentially serious complications is by getting vaccinated each year.**

Check out these resources from the CDC for healthcare workers:

[Information for Health Professionals](#)

[Seasonal Influenza Vaccination Resources for Health Professionals](#)

## Collaboration is Key: Project Firstline Partnerships



CDC's Project Firstline brings together diverse healthcare, public health, and academic partners that are committed to providing transparent and effective infection control training and resources to the frontline healthcare workforce. Pennsylvania's Department of Health is excited to be one of Project Firstline's partners. Our goal is to work together to improve and enhance Pennsylvania's healthcare workforce expertise in infection prevention and control as well as keep the healthcare community safe from infectious disease threats.

### **Project Firstline Partner Resources:**

[Community College Collaborative](#)  
[Program Partners](#)  
[Partner Activities](#)

## What Do Viruses Look Like & How Do They Work?

We talk about viruses a lot in healthcare, but people often have questions like, what exactly is a virus? What does it look like? How does it work? Even if you're already familiar with viruses, it's helpful to know how to explain them to other people, so we've developed a brief overview.

Viruses aren't really a living thing like an animal is, but they are able to use living things (like animals and people) to make copies of themselves and then they keep spreading from one living thing to another.

Viruses only have a couple of parts – genes, proteins, and some have envelopes or a protective shell.

## Need Continuing Education Credits?

Check out videos with CDC's Dr. Abby Carlson to learn the basic ideas behind infection control, how they work to prevent COVID-19, and how using infection control actions while you're at work can protect you, your patients, your co-workers, and your community.

[Earn a certificate of completion](#) for watching Inside Infection Control episodes on CDC TRAIN. Launch the video from TRAIN to receive your certificate.

Earn continuing education through Training and Continuing Education Online (TCEO):

[Group One – Introduction to Infection Control and Virus Basics](#)

[Group Two – Injection Safety](#)

[Group Three – PPE Basics](#)

[Group Four – Respirator Basics](#)

[Group Five – Environmental Cleaning and Disinfection Basics](#)

[Group Six – Ventilation, Source Control, and Hand Hygiene](#)

[Group Seven – How COVID-19 Spreads](#)

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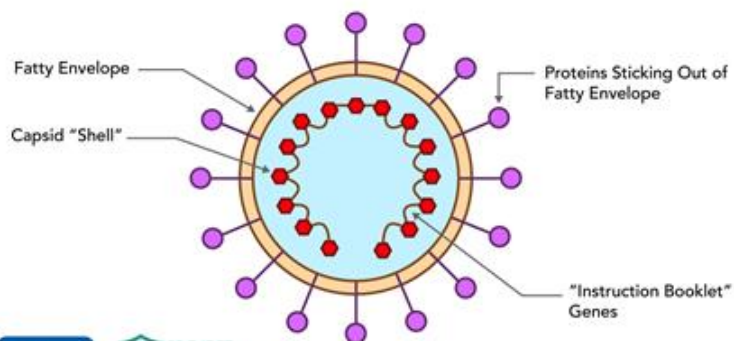
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- All viruses have **genes**, and those genes contain all the information needed to make more virus copies. You can think of these genes like an instruction booklet or the blueprint of the virus. They're the thing that needs to be read in order to make more viruses.
- Viruses also have **proteins**. Most of the proteins in a virus come together to create a shell. The technical name for this is a "capsid," and this layer protects those blueprint genes from getting damaged. Some proteins stay inside the shell, and they only come out when it's time to make more copies of the virus. Other proteins stick out from the shell and those proteins are special because they help the virus get around the body and also from one person to another.
- Some viruses (not all but SARS-CoV-2 is one of them) have another layer on the outside of that shell called an **envelope**. The envelope for the virus protects the genes inside of it. This envelope is made of some fats with some protein mixed in. It also, like the shell, has some proteins sticking out of it. Just the same as the shell, those proteins are used to help the virus get around the body and help it get from one person to another.

Check out this graphic that visualize the parts of viruses.

### [The Parts of Viruses](#)

## THE PARTS OF VIRUSES



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