

IBD, THE FLU AND YOU



Find Out More About IBD And The Flu To See If The Shot is Right For You

WHAT IS THE FLU?

The “flu” is an infection caused by the Influenza group of viruses. Many people mistake the common cold for the flu.

There are 3 main types of Influenza viruses:

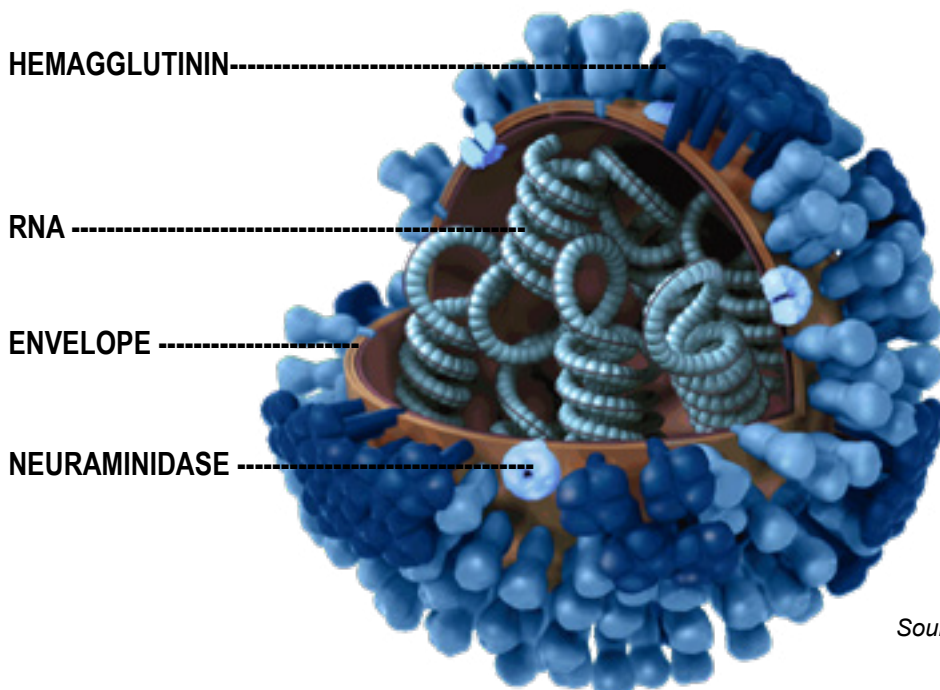
TYPE A: Infects birds and mammals including humans causing serious infections

TYPE B: Causes serious infections in humans

TYPE C: Only causes mild symptoms

Types A and B are the most common, and they have many subtypes based on what’s on the outer layer (like different features on a car model!)

This is a very magnified view of a flu virus. Flu viruses are named by the various proteins (types of hemagglutinin/neuraminidase) the virus makes for its outer shell.



Source: CDC

WHAT DO WE KNOW ABOUT INFLUENZA?

It is highly CONTAGIOUS (meaning that it is easy to get infected).

It spreads by cough or sneeze droplets and contaminated hands and objects.

The virus causes high fevers, chills, cough, sore throat, headache, muscle pain, fatigue and diarrhea.

The “flu season” can stretch from OCTOBER to as late as MAY in Ottawa.



Remember to
sneeze in your
sleeve and wash
your hands!

Source: CDC

WHY WORRY ABOUT THE FLU?

Because It's Very Serious!

The severity of infection that the flu virus causes varies each year is different and unpredictable.

SERIOUS complications of this infection can occur.

Complications include pneumonia, inflammation of the heart, brain or muscle... and even death.

The flu shot may prevent relapses in Crohn's disease and ulcerative colitis (see below)*

** Immunization Monitoring Program*





HOW DOES THE VACCINE WORK?

The 'flu shot', or vaccine, contains tiny pieces of the proteins of Type A and Type B Influenza viruses. A vaccine that contains tiny protein pieces of a virus is called an **INACTIVE** vaccine because tiny pieces by themselves **CANNOT CAUSE** the flu.

These tiny pieces stimulate the body to make antibodies. An activated immune system may cause some small symptoms like a low fever.

When an Influenza virus tries to invade the body, the antibodies recognize the tiny pieces of the live virus and attack it...

...so, you are protected against an infection!

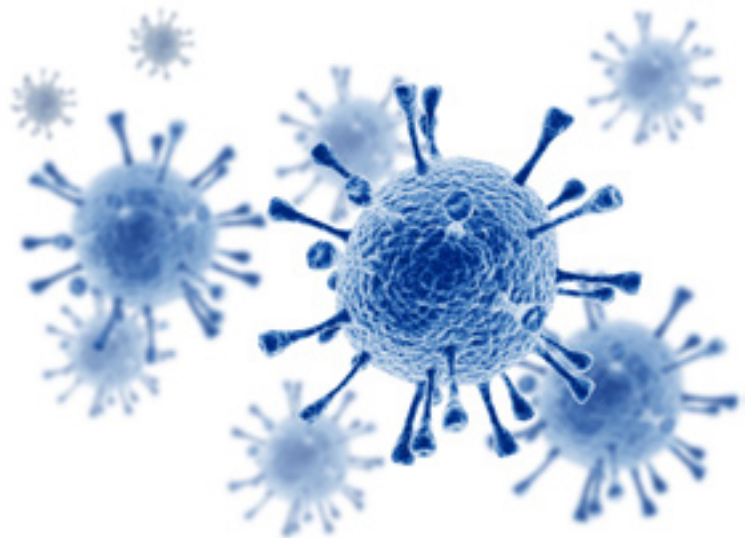
WHY DO I NEED A FLU SHOT EVERY YEAR?

Influenza viruses have an amazing ability to change the proteins on their outer layer shell each year.

Antibodies to the previous year's flu shot may not recognize the changed outer layer proteins.

The vaccine changes each year to match the changed (i.e. strain) influenza virus.

Remember! There are lots of subtypes to protect against!



SO, HOW WELL DOES THE VACCINE MATCH THE VIRUS

Some years, the match is excellent. In 2003, the vaccine was a 100% MATCH to the strains of Influenza A and 81% similar to the Influenza B Virus!*

**Ideas@CHEO: Pediatric Infectious Diseases, Newsletter. Vol 3. Issue 1. Spring 2013*

But for most years, it is not a perfect match. This is because time is required to make the needed vaccine supply. To have the time, scientists make their best guesses about the outer shell protein changes to the Influenza virus for the upcoming flu season many months in advance. But even if it's not a perfect match, it's better to have a flu vaccination than not because there can be some level of protection. Some protection prevents against the worst effects of the flu virus.



Source: Public Health Agency of Canada's FluWatch Report: July 21, 2019 to August 24, 2019 (Week 30-34)



WHAT DO CANADIAN GUIDELINES RECOMMEND?

All children over 6 months of age should get the flu vaccine EVERY YEAR, ESPECIALLY if they are at a high risk of complications.

This includes children with chronic medical conditions like Crohn's disease and ulcerative colitis.

Source: Public Health Agency of Canada's Seasonal Influenza Vaccine Pocket Guide 2019/20 Edition

IS IT SAFE?

YES! The flu vaccine is safe, and it cannot CAUSE the flu!

All vaccines approved in Canada must meet strict safety standards and are monitored closely. Side effects of the vaccine might include soreness where the needle goes in the arm, or a low fever.

Influenza vaccine is safe and well-tolerated. Influenza vaccine given by needle cannot cause influenza illness because it does not contain a live virus.



YOU SHOULD NOT GET THE FLU SHOT IF YOU:

- have had a severe reaction to any of the vaccine components, with the exception of egg
- have had a very severe reaction to the Influenza vaccination in the past
- are younger than 6 months of age
- have a severe illness with fever (you should wait to get vaccinated until you have less symptoms)
- have a history of Guillain-Barre Syndrome (i.e. a very rare, severe disease that causes paralysis)



Did you know that the vaccine is made using chicken eggs?

Egg allergy is not a contraindication for influenza vaccination as there is low risk associated with the trace amounts of ovalbumin allowed in influenza vaccines manufactured using eggs.

Egg-allergic individuals may be vaccinated against influenza with the full dose, irrespective of a past severe reaction to egg.

Source: Public Health Agency of Canada's Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2019-2020

CAN I GET THE VACCINE WITHOUT A NEEDLE?

You may have heard there is a nasal spray flu vaccine.

The nasal spray vaccine is made with LIVE, weakened Influenza viruses.

People on many of the medications used for Crohn's disease and ulcerative colitis should NOT get LIVE vaccines.

The nasal spray is not available in Canada for the 2019 - 2020 influenza season.

Source: Public Health Agency of Canada's Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2019-2020

You should only get the flu vaccine given by needle!



WHAT ABOUT PATIENTS WITH CROHN'S DISEASE OR ULCERATIVE COLITIS LIKE ME?

Guidelines for immunizations in IBD also recommend ANNUAL INFLUENZA VACCINATION, including patients on therapies like:

- Prednisone
- Azathioprine (Imuran ®)
- Methotrexate
- Infliximab (Remicade ®)
- Adalimumab (Humira ®)

Good news! IBD patients on these medications can make anti-flu antibodies after getting the flu shot!¹

¹deBruyn JC, et al. Immunity and safety of Influenza Vaccination in children with inflammatory bowel disease. Inflamm Bowel dis 2012; 18: 25-33.

The influenza vaccine is safe in children with Crohn's disease and ulcerative colitis².

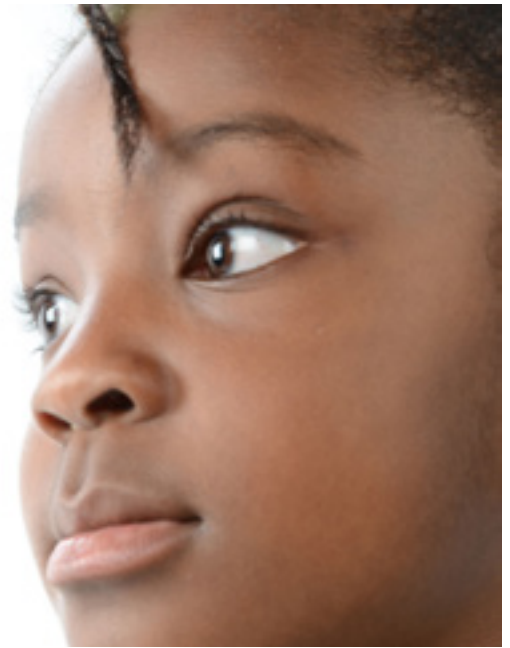
²Benchimol EI, Hawken S, Kwong JC, Wilson K. Safety and utilization of influenza immunization in children with inflammatory bowel disease. Pediatrics 2013;131(6): e1811-1820

The flu shot does not cause a flare of Crohn's disease or ulcerative colitis. BUT VIRUSES CAN³!

³Huth K, Benchimol EI, Aglipay M, Mack DR. Strategies to improve influenza vaccination in pediatric inflammatory bowel disease through education and access. Inflammatory Bowel Diseases 2015 21(8):1761-1768.

WANT TO LEARN MORE?

Ask your IBD physician! And visit the IBD knowledge centre on the CANImmunize website!



IN THE NEWS



Flu shots safe for children with inflammatory bowel disease

No real increase in health-care use after inflammatory bowel patients got flu shots

The Canadian Press · Posted: May 06, 2013 10:55 AM ET | Last Updated: May 6, 2013

Getting a flu shot doesn't exacerbate inflammatory bowel disease in children and teens and may even protect them from flare-ups, a new study suggests.

Children who suffer from inflammatory bowel disease are encouraged to get flu shots every year, because the drugs they take weaken their ability to fend off infections.

A doctor hopes the findings will persuade parents of children with inflammatory bowel disease to ensure their kids get a flu shot every year (Jeff McIntosh/Canadian Press).

But some of these patients are worried about getting the shots because there have been reports the flu vaccine can cause their disease to flare.

So several Ottawa researchers did a study to see if that was true; their work is in this week's issue of the journal *Pediatrics*.

Lead author Dr. Eric Benchimol says the findings show that getting a flu shot doesn't lead to flare-ups in these patients.

Children with inflammatory bowel disease cannot use the inhaled flu vaccine, which contains live but weakened viruses; they can only get the shot, which contains killed flu viruses.

Inflammatory bowel disease is an umbrella term for conditions of the small intestines and colon such as Crohn's disease and ulcerative colitis.

Benchimol, a pediatric gastroenterologist from the Children's Hospital of Eastern Ontario, says Canada has among the world's highest rates of inflammatory bowel disease in both children and adults, with about one in 200 Canadians affected. Rates appear to be climbing sharply among kids under the age of 15.

The reason for the high rates isn't known, though it is suspected some environmental factor may be at play.

Using administrative data for Ontario, Benchimol and his co-authors looked at records for all children under the age of 19 with inflammatory bowel disease between 1999 and 2009.

They did several analyses, comparing their rates of hospital or outpatient visits during flu seasons when they got a shot to those when they didn't. They also compared them to children who were like them in age, gender and other characteristics, but who didn't have inflammatory bowel disease.

Only about a third of the inflammatory bowel group got flu shots, though fewer of the other children did.

The researchers saw no real increase in health-care use after the inflammatory bowel patients got flu shots. And they appeared to use health care less in the years when they got a flu shot, suggesting the vaccine might have been protective, Benchimol says. That would make sense, he explains. Often when these patients contract infections — stomach bugs or colds or flu — they will experience an episode of disease activity. "Everybody in the house gets it and everyone else gets better but the IBD patient kind of flares up and starts having blood in their stool and other symptoms," he says. He says the authors hope these results will persuade the parents of children with inflammatory bowel disease that these kids should get a flu shot every year.