

# Demystifying vaccine information: Understanding the language of influenza

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# **Glossary**

#### Adjuvanted Influenza Vaccines (-Adj)

• This type of influenza vaccine has an adjuvant, which is an ingredient used in some vaccines to help create a stronger immune response.

# Annual Dose (of a vaccine)

• An annual dose of a vaccine is one that should be taken every year to ensure that individuals have immunity to the strain of a disease circulating in a given year.

# **Antigens**

Antigens are parts or molecules of infectious agents such as bacteria or viruses. Immunization
exposes our bodies to antigens in a safe way so that our immune system can develop an immune
response. If we are exposed to that same bacterium or virus later on, our immune system will have
the ability to respond more quickly to prevent us from getting the disease or getting very sick if we
do get the disease.

#### **Asymptomatic**

• To be asymptomatic is when an individual has a disease but does not present any signs or symptoms of that disease.

#### **Booster Dose**

• A booster dose is an extra dose of a vaccine that is given after an initial or original dose is administered. The amount of time between the first dose and the booster dose will vary depending on the disease, vaccine, age, and other risk-factors. The original dose of the vaccine prepares the body to recognize and produce antibodies against the virus. Following the original dose, the booster dose reminds the body's immune system about the virus that it needs to defend itself against to improve immunity and ensure longer lasting protection.

# **Cardiovascular Complications**

• Cardiovascular complications are related to the cardiovascular system in the body, which includes the heart and blood vessels. Normally, these complications are from cardiovascular disease, and can present a higher risk of heart attacks, strokes, and other related issues. Infection from influenza (flu) may lead to cardiovascular complications.





#### **Chronic Medical Conditions**

• Chronic medical conditions are typically any medical condition that last for a long time, usually spanning a year or more. There is often a need for ongoing medical care to support difficulties and limited activity experienced as a result of these conditions. Some chronic medical conditions or diseases include diabetes, cardiovascular disease, arthritis, chronic respiratory diseases (i.e. asthma, chronic obstructive pulmonary disease (COPD)), dementia, and osteoporosis.

#### Comorbidity

• A condition of suffering from more than one morbidity (disease or medical condition) at a time.

#### Contraindication

• A contraindication is a condition that serves as a reason to not take a certain medical treatment because it maybe harmful to the person.

## **Diagnosis**

• A diagnosis is the identification of a disease or condition.

#### Disinformation

• Disinformation refers to false information that is intended to manipulate, cause damage, and guide people, organizations, and countries in the wrong direction.

# Dosage/dose

Dosage of a vaccine is the measured amount of a particular vaccine that is intended to be taken
at one time. Different doses may be recommended at different intervals of time. Varying the
dose provides different levels of protection and may be required for individuals with higher risk
of disease. Influenza vaccines in Canada can be further classified based on their dose, such as
standard dose or high dose.

# **Epidemic**

• An epidemic is when a disease or health-related event spreads unexpectedly across a region or population.

# Flu (see influenza)

• The flu, also known as influenza, is a respiratory infection caused by influenza viruses.





# **Health Literacy**

Health literacy is the degree to which individuals have the ability to find, understand, and use
information and services to inform health-related decisions and actions. This is something that
can be improved at an individual level and societal level with continued learning and teaching.

# High Dose Influenza Vaccines (-HD)

• High dose influenza vaccines are types of vaccines that typically include 3 to 4 times as much antigen content as standard dose vaccines.

#### Inactive Influenza Vaccines (IIV)

• Inactive influenza vaccines are types of vaccines made of killed influenza viruses or parts of these viruses and are administered by injection.

#### Influenza (see flu)

• Influenza, also known as the flu, is a respiratory infection caused by influenza viruses.

#### Informed Decision-Making

 Informed decision-making is a type of decision-making where individuals are making decisions surrounding their health on the basis of receiving all relevant information of the issue. This relevant information on the issue may include the diagnosis (the identification of a disease or condition), risks and outcomes of the disease, prognosis (the likely course of a disease or illness), and prevention and treatment options with advantages and risks outlined.

# **Immune System**

• The immune system is our body's natural defense system. It is a complex network that is made up of different parts of our body that defends the body against infection and promotes healing when ill or injured.

#### **Immunocompromised**

Being immunocompromised means that your body's immune system's defenses are low, which
affects its ability to fight against infections and diseases.

# **Immunogenicity**

• Immunogenicity is the ability of a vaccine to provoke an immune response.

#### **Immunosenescence**

Immunosenescence is the decreased immune function that comes with the process of ageing.





# Lineages

• Lineages are groups of viruses that are closely related and have a common viral ancestor. The flu is caused by 2 main influenza viruses, Influenza A virus and Influenza B virus. It is important to note here that the Influenza B virus has 2 lineages.

#### Live-Attenuated Influenza Vaccines (LAIV)

• Live-attenuated influenza vaccines are made of weakened influenza viruses and are typically given as a nasal spray.

# Morbidity

• Morbidity is a condition of suffering from a disease or medical condition.

#### Mortality

• Mortality is a state of being subject to death.

#### Misinformation

Misinformation refers to false information that is not intended to cause harm.

# Myocardial Infarction (heart attack)

A myocardial infarction is a medical emergency that is also known as a heart attack. This usually
occurs when blood flow decreases or stops in one of the coronary arteries that supplies blood
to the heart. If blood flow is not restored quickly, this can cause permanent damage and death.
Being infected with influenza (flu) is connected to an increased risk of a myocardial infarction
(heart attack).

#### **Pneumonia**

 Pneumonia is an inflammatory infection of one or both of the lungs caused by bacteria, viruses, or fungi. Symptoms of pneumonia typically include some combination of a productive or dry cough, chest pain, fever, and difficulty breathing. Pneumonia is one of the complications that may arise from the flu.

#### **Prognosis**

A prognosis is the likely course of a disease or illness.

#### Quadrivalent (4-strain) Vaccines

 Quadrivalent vaccines protect against 4 strains of the influenza vaccines, which are the strains in the trivalent vaccine (influenza A(H1N1) strain, influenza A(H3N2) strain, and influenza B strain from one of the 2 Influenza B virus lineages) plus an influenza B strain from the other lineage.





#### Recombinant Influenza Vaccines (RIV)

• Recombinant influenza vaccines are types of influenza vaccines that are created synthetically. This is where scientists obtain the virus' gene that has genetic instructions, to make the antigen. This vaccine is administered by injection.

#### Recommendation for Individual-Level Decision Making

• This type of recommendation, provided by the National Advisory Committee on Immunization (NACI), is intended for people wishing to protect themselves from a particular disease, such as influenza or for vaccine providers wishing to advise individual patients about preventing influenza.

#### Recommendation for Public Health Program-Level Decision Making

 This type of recommendation, provided by the National Advisory Committee on Immunization (NACI), is intended for provinces and territories responsible for making decision on publicly funded immunization programs. There are important factors to consider when recommending a vaccine for a population versus an individual, such as population demographics and economic considerations.

#### **Respiratory Failure**

Respiratory failure is a serious condition that makes it difficult to breath on your own. This typically
results from not enough oxygen or too much carbon dioxide in your body. Respiratory failure is a
complication that may arise from infection with influenza (flu).

#### Respiratory Infection (Respiratory Tract Infection)

 A respiratory infection or respiratory tract infection is any infectious disease of the upper or lower respiratory tract that involves parts of the body that are required in breathing, such as the lungs, sinuses, throat, and airway.

#### **Standard Dose Formulation**

• The inactivated influenza vaccines (IIVs) vaccines in Canada can be found in a standard dose formulation or in a formulation designed to enhance the immune response in specific age groups, using a higher dose of antigen or the inclusion of an adjuvant.

# Standard Dose Influenza Vaccines (-SD)

Standard dose influenza vaccines have a baseline measured dose.

#### Stroke

• A stroke is a disease that affects the arteries that lead to and are within the brain. In a stroke, there is typically poor blood flow to the brain causing cell death. There are 2 main types of strokes: ischemic (lack of blood flow to an area of the brain) and hemorrhagic (when a blood vessel in the brain leaks or bursts and causes bleeding in the brain). Being infected with influenza (flu) is connected to an increased risk of stroke.





# **Symptoms**

Symptoms are a feeling or experience that an individual has, which may indicate that they have a
disease or condition. Some examples of influenza disease symptoms include sudden onset of a
fever, cough, and muscles aches and pains.

#### Trivalent (3-strain) Vaccines

 Trivalent vaccines protect against 3 strains of the influenza virus, which includes an influenza A(H1N1) strain, influenza A(H3N2) strain, and influenza B strain from one of the two Influenza B virus lineages.

#### Vaccine

 Vaccines are a tool that works alongside our body's natural defense system, which is known as our immune system. They work to develop protection against diseases without acquiring the risks that come from getting the diseases.

#### **Vaccine Formulation**

Vaccine formulation includes the parts and processes that make up a vaccine. Formulation
may describe the ingredients such as an adjuvant, dosage of ingredients, and processes used in
creating a vaccine. Varying formulations of a vaccine against a disease will offer different types of
protection depending on an individual's or population's risk level and other factors.

# Vaccine Preventable Diseases (VPDs)

 Vaccine preventable diseases are types of diseases that can be prevented with vaccines. Some examples of VPDs are influenza (flu), chickenpox, measles, COVID-19, pneumococcal disease, and hepatitis.

# **Valency**

Valency is the number of strains of a virus that a vaccine protects against. Vaccines will expose
the body to the antigens of these strains. For example, a trivalent vaccine will protect against 3
strains of the virus and a quadrivalent vaccine protects against 4 strains of the virus. Valency is
therefore a sub-category of each of the types of influenza vaccines. It is represented by numerals
after letters in a vaccine's name.

