# C&VID-19 Vaccine Safety for Youth



5 things to know for 12-17 year olds

### **1** Vaccines greatly reduce the chance of getting and spreading COVID-19

Over 2 million youth in Canada and over 250,000 youth in B.C. aged 12-17 have already received a dose of the COVID-19 vaccine.

#### Vaccinated youth are much less likely to get sick from COVID-19 or be hospitalized:



HOSPITALIZATION RATES in BC Sept. 16- Oct. 15 | 12-17 yr olds 4 \_\_\_\_\_\_4 3 \_\_\_\_\_2 2 \_\_\_\_\_1 Vaccinated: Vaccinated: Unvaccinated 2 doses 1 dose

#### Summary (Sept.-Oct. 2021)

- No hospitalizations among vaccinated youth
- Most cases were among unvaccinated youth, who were 24 times more likely to get COVID-19 than vaccinated youth

While hospitalizations remain low among youth, vaccines prevent serious illness and long-term impacts of COVID-19. They also prevent spreading it to friends and family who could get very sick.

### 2 Each vaccine goes through a rigorous testing and approval process

Canada's laws and regulations set high standards for vaccine safety and approval. The vaccines approved for youth have passed all the below required stages.

#### 1. RESEARCH

Lab and animal studies before testing on humans.

#### 2. CLINICAL TRIALS

Testing on thousands of volunteers to ensure vaccines are safe and they work.

#### Trial results for mRNA vaccines

| Pfizer-BioNTech's                            | Moderna's                                    | No serious               |
|--|--|--------------------------|
| Comirnaty                                    | Spikevax                                     | side-effects             |
| 100% efficacy<br>in youth 12-15<br>years old | 100% efficacy<br>in youth 12-17<br>years old | related to the vaccines. |

#### 3. REGULATORY APPROVAL

Health Canada approved the mRNA vaccines for use in youth 12-17 years old.

- Data from studies were thoroughly reviewed.
- Product and facilities were checked for quality control.

#### 4. EXPERT RECOMMENDATION

An independent group of experts called National Advisory Committee on Immunization (NACI) reviewed the evidence and **recommended the use of mRNA vaccines in youth 12 - 17 years old**.

#### 5. ONGOING MONITORING

Data are constantly monitored around the world to ensure safety and real-world effectiveness.

Although this process can usually take years, Health Canada dedicated many more scientific resources, put in fast-track processes used for H1N1 and collaborated with international regulators to meet the urgent need. No steps were skipped.

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BC Centre for Disease Control

## 3 The ingredients have been researched for over two decades

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#### Did you know?

• Our body uses mRNA every day to tell our cells how to make proteins. This helps us perform nearly every function, like building our muscles, heart, skin and brain.

Since the 1990's, mRNA has been researched for its use in medicine.

- Two past coronavirus outbreaks (SARS in 2003 and MERS in 2012) helped us understand coronaviruses and the spike protein.
- The decades of research by scientists around the world, including at the University of British Columbia, helped us get effective COVID-19 vaccines to people in a much more timely manner.



## 4 Vaccines teach your body how to launch its own immune response

The COVID-19 vaccines work like other vaccines – by **helping the body make its own natural protection** without being exposed to the whole virus.

1. The mRNA tells the body to build and present a harmless protein found on the coronavirus.

As with our own mRNA, the vaccine mRNA is then quickly destroyed by our cells and does not stay in the body.

- Our immune system recognizes that this protein doesn't belong there and starts creating antibodies to fight it.
- 3. It then remembers and stores this information to protect us from future infection.

Learn more about how vaccines work at **Immunize BC**.



### Side effects are completely normal after receiving a vaccine

These usually

go away within

a few days.

• Side effects are often part of the body's natural immune response.

### The most common side effects reported by youth are:

- pain where the shot was given
- fatigue
- headache
- chills
- muscle ache

- 99.9% of people who received the mRNA vaccines did not report any serious side effects.
- In very rare cases, myocarditis or pericarditis

   (inflammation of the heart muscle or lining) can occur.
   Most people recover quickly. The chance of getting
   myocarditis from COVID-19 is much greater than getting
   it from the vaccine.
- The medical and scientific community is confident in the long-term safety of the mRNA COVID-19 vaccines. Learn more about long-term safety at ImmunizeBC