

Dear Families,

As we are all aware, the coronavirus (also known as COVID-19), has changed the way we work and live. The best advice we have had from the Centers for Disease Control and Prevention (CDC) includes:

1. Wear a mask
2. Stay six feet apart
3. Wash your hands frequently with warm, soapy water for at least 20 seconds
4. Avoid touching your face and eyes
5. Avoid crowds (the definition of a “crowd” changes frequently, but the current guideline is to keep indoor gatherings to ten people or less).

In November 2020, a new weapon in the fight against COVID-19 became available: vaccines produced by two US companies: Moderna and Pfizer. These vaccines are “messenger RNA” vaccines, also known as mRNA. mRNA vaccines are a new type of vaccine to protect against infectious diseases. To trigger an immune response, many vaccines put a weakened germ into our bodies. mRNA vaccines work differently; they teach our cells how to make a protein that triggers an immune response inside our bodies. That immune response, which produces antibodies, is what protects us from getting infected if the real virus enters our bodies.¹ This helps our bodies protect us against actual infection.

The COVID-19 mRNA vaccines were strictly evaluated for safety using the same standards as all other types of vaccines in the USA. mRNA vaccines have been studied for the flu, Zika, rabies, and cytomegalovirus.²

Important Facts

1. The COVID-19 mRNA vaccine does NOT contain the live virus, so you cannot get the illness from the vaccine.
2. The vaccine does not interact with our DNA (genetic material) in any way.
 - a. mRNA never enters the nucleus of the cell, which is where our DNA is kept
 - b. The cell breaks down and gets rid of the mRNA as soon as it is finished using the instructions.

¹ <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mrna.html>

² <https://www.fda.gov/media/139638/download>

3. According to the Vaccine Adverse Event Report System (VAERS), between December 21, 2020- January 10, 2021, more than 4 million vaccines have been given. Only 10 cases of severe reaction (anaphylaxis) were reported. The recipients were treated within ten minutes. At the time of this letter, no deaths have been reported. ³

Comparison of Moderna and Pfizer Vaccines

Manufacturer	Refrigeration	Side Effects	Injection Timing	Effectiveness	Age Group
Moderna ⁴	-4 ° for shipping/storage. After it thaws, it is stable at normal refrigerator temperature for 30 days and room temperature for 12 hours.	<ul style="list-style-type: none"> • Pain at the injection site • Fatigue • Headache • Muscle/joint pain • Fever/chills • Nausea • Vomiting 	28 days between first and second shots	94%	18 years and older
Pfizer ⁵	-94° for shipping/storage. After it thaws, it is stable for 5 days in a normal refrigerator		21 days between first and second shots	95%	16 years and older

Massachusetts Vaccination Timetable

Phase one included clinical and non-clinical health care workers doing direct and COVID-19-facing care. It also included residents of long-term care facilities, those living in shelters and prisons, and all first responders.

Phase Two begins February 1, 2021. It includes (in order of priority):

1. Those individuals 75 years and older
2. Those individuals 65 years and older with other health conditions (comorbidities) that places them at increased risk for severe illness
3. Residents/staff of low-income and affordable senior housing
4. Workers in early education, K-12, transportation, grocery, restaurants and food service industry

³ <https://www.cdc.gov/mmwr/volumes/70/wr/mm7004e1.htm>

⁴ <https://www.fda.gov/media/144636/download>

⁵ <https://www.fda.gov/media/144413/download>

Phase Three begins April 2021 which includes the general public.

There are many locations to receive the COVID vaccination. Your best resource for specific venues is <https://www.mass.gov/info-details/covid-19-vaccination-locations-for-individuals-in-eligible-groups-and-phases>

“Due to high demand and constrained vaccine supply, COVID-19 Vaccination appointments are limited. More appointments will be available based on supply from the Federal Government. Appointments will be added on a rolling basis.”⁶

List of Resources:

1. Centers for Disease Control and Prevention (CDC): <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
2. Massachusetts government: <https://www.mass.gov/info-details/covid-19-updates-and-information>
3. Moderna vaccine: <https://www.who.int/news-room/feature-stories/detail/the-moderna-covid-19-mrna-1273-vaccine-what-you-need-to-know>
4. Pfizer vaccine: <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/pfizer-biontech-covid-19-vaccine>
5. Vaccine Adverse Event Reporting System(VAERS): <https://vaers.hhs.gov/>
6. Town of Holliston: <https://www.townofholliston.us/home/pages/guidance-covid-19-from-dph>

Another US company is working on a COVID-19 vaccine development. This vaccine only requires one injection, but it has not yet received FDA approval:

1. Johnson and Johnson: <https://www.pharmacytimes.com/news/interim-results-of-johnson--johnson-single-dose-covid-19-vaccine-shows-90-efficacy>

It is **completely normal** to have concerns about vaccination safety. We are battling a huge pandemic and now trying to navigate new science and medicine. This is not unlike the polio epidemic that occurred during the early part of the 20th century. Though most people recovered quickly from polio, some suffered temporary or permanent paralysis and even death. Because of widespread vaccination, polio was eliminated from the Western Hemisphere in 1994.⁷

You may have heard the term, “herd immunity,” which means that a population is protected from a disease either through vaccination or immunity developed through previous infection. The World Health Organization (WHO) supports achieving “herd immunity” through vaccination, not

⁶ <https://www.mass.gov/info-details/covid-19-vaccination-locations-for-individuals-in-eligible-groups-and-phases>

⁷ <https://www.historyofvaccines.org/timeline/polio>

by allowing a disease to spread through the population, as this could result in unnecessary cases and deaths.⁸ Vaccines train our immune systems to fight disease, **but vaccines work without making us sick**. Vaccinated people are protected from getting the disease and passing on the germ, breaking the chain of transmission.

We hope that this information helps you make informed choices about your health. It is not meant to replace the advice of your doctor or other healthcare provider. COVID-19 information is changing daily so always refer to Massachusetts Department of Public Health for the most up-to-date information: <https://www.mass.gov/info-details/covid-19-updates-and-information>

Sincerely,

⁸ <https://www.who.int/news-room/q-a-detail/herd-immunity-lockdowns-and-covid-19#:~:text=Herd%20immunity%20is%20achieved%20by,without%20making%20us%20sick>.