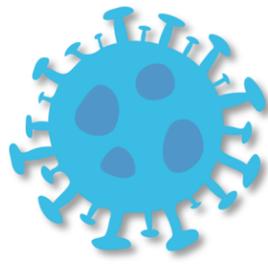


COVID-19 Vaccination in Virginia

Vaccine development can take years. The COVID-19 vaccine has been developed in one year. All steps occurred as normal, just on an expedited timeline driven by the federal government through Operation Warp Speed, whose goal is to produce 300 million doses of safe, effective COVID-19 vaccine.



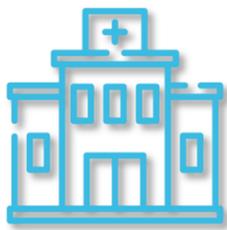
Multiple vaccine candidates are in development around the globe. The first vaccine to receive emergency use authorization (EUA) from the U.S. Food and Drug Administration is the Pfizer (mRNA) vaccine. EUA approval for the Moderna mRNA vaccine is expected soon.

Initial vaccine shipments have begun rolling to Virginia hospitals. The Pfizer vaccine comes in a thermal shipping container whose maximum contents include five trays of vaccine vials totaling 975 doses. The Moderna vaccine will ship in lots as small as 100 doses.



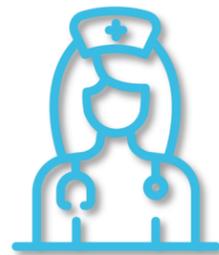
The Pfizer vaccine must be stored at -60° to -80° C; the Moderna vaccine must be stored at -20° C. When unfrozen, the Pfizer vaccine can be stored at $2-8^{\circ}$ C for 5 days. Unfrozen Moderna vaccine can be stored at $2-8^{\circ}$ C for 30 days. Pfizer (21 days apart) and Moderna (28 days apart) are given in 2 doses.

Virginia's initial allocation should include enough doses to vaccinate 480,000 health care professionals (e.g. hospital staff, long-term care facility residents/staff). Hospitals are vaccinating their teams and assisting on other caregiver vaccinations. Commercial pharmacies are working with long-term care.



Hospitals (18) have received initial shipments, have placed their allocation in storage, redistributed portions of their shipment to other facilities as planned, and begun to schedule vaccination clinics for staff. The hope is that all health care professional vaccinations can be completed within 45-60 days.

Health care professionals are in the vaccine prioritization first tier (with high-risk frontline providers among those first to receive vaccines). The next designated priority groups include essential workers such as police officers and firefighters, and then vulnerable adults in high-risk populations.



Prior to vaccination, doses must be thawed. The Pfizer vaccine must also be diluted before it is administered. The Moderna vaccine does not require dilution. While the COVID-19 vaccine is strongly recommended for health care professionals, it is voluntary for hospital staff.