

# How to Administer Multiple Intramuscular Vaccines to Adults During One Visit

It is not unusual for adults to need more than one vaccination at an office visit. When that occurs, CDC recommends giving all needed vaccines at the same visit to reduce missed opportunities.

## These vaccines commonly administered to adults\* are administered via the intramuscular route:

COVID-19	Influenza
Hepatitis A	Pneumococcal
Hepatitis B	Respiratory Syncytial Virus (RSV)
Human papillomavirus (HPV)	Tdap and Td
	Zoster

## Determine vaccines to be administered.

- ▶ Review each patient's vaccine history and determine needed vaccines (see CDC's recommended schedule of immunizations for adults at [www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf](http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf)).

## Determine which vaccines to give in separate limbs.

- ▶ Administer vaccines more likely to cause a local reaction in separate limbs, if possible. Vaccines that cause injection site pain in at least half of recipients include COVID-19, zoster, HepA, HPV, pneumococcal (PCV, PPSV), and tetanus-containing vaccines (Tdap, Td).<sup>†</sup>
- ▶ If administration in separate limbs is not feasible or desired, administration in the same limb, separated by at least 1" (inch), is appropriate.

## Select the injection site(s) for intramuscular injections.

- ▶ Determine which vaccine(s) will be administered in each limb (see options in diagrams at right). You can administer 1, 2, or 3 injections per deltoid, spaced at least 1" apart.
- ▶ **Deltoid muscle:** Locate the central and thickest portion of the deltoid muscle – above the level of the armpit and approximately 2" below the acromion process (see diagram at right).
- ▶ **Anterolateral thigh muscle:** Locate the outer portion of the middle third of the thigh (see diagram at right).

## Prepare to administer IM injections.

- ▶ Choose the needle gauge and length needed for the patient's age and weight (see "Administering Vaccines to Adults: Dose, Route, Site, and Needle Size" at [www.immunize.org/catg.d/p3084.pdf](http://www.immunize.org/catg.d/p3084.pdf)).
- ▶ Draw up each vaccine using a separate, new needle and syringe.
- ▶ Label each vaccine syringe and clearly indicate on the label or tray the planned injection site (e.g., right arm [RA], left arm [LA], right thigh [RT], left thigh [LT]).
- ▶ Administer injection at a 90° angle (see "How to Administer Intramuscular and Subcutaneous Vaccine Injections to Adults" at [www.immunize.org/catg.d/p2020a.pdf](http://www.immunize.org/catg.d/p2020a.pdf)). If more than one injection is given in a single limb (arm or leg), separate the injections by a minimum of 1".

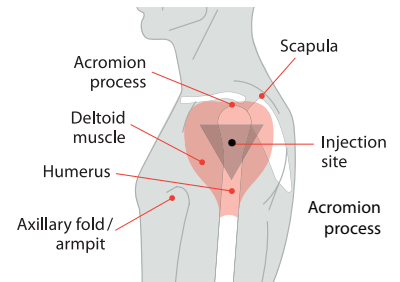
\* Additional vaccines may be indicated for an adult due to missed childhood vaccinations, medical conditions, exposure risk, travel plans, or occupational risk.

† According to clinical trial data provided in prescribing information.

The diagrams below illustrate options for administering one, two, or three vaccinations in a single arm, spaced at least 1" apart. Additional injections can also be administered in the opposite arm.

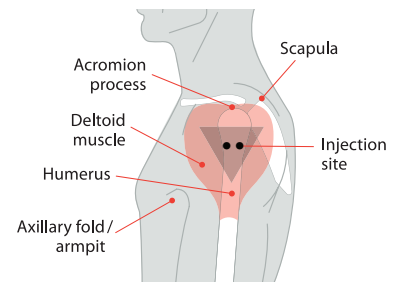
Use anatomical landmarks to determine the injection site in the deltoid muscle (a large, rounded, triangular shape). Find the acromion process, which is the bony point at the end of the shoulder. Then, locate the injection site which will be approximately 2" below the bone and above the axillary fold/armpit.

### Single IM injection in deltoid



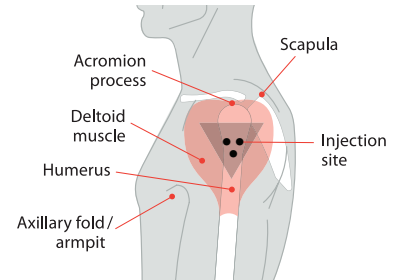
### Two IM injections in deltoid

Space injections at least 1" apart.



### Three IM injections in deltoid

Space injections at least 1" apart.



An IM injection may also be administered in the anterolateral thigh muscle as shown below.

