### Seasonal Influenza

**Trivalent inactivated influenza vaccine (TIV)**  
*Give IM*

**Live attenuated influenza vaccine (LAIV)**  
*Give intranasally*

- Beginning with the 2010–11 influenza season, vaccination is recommended for all adults. (This includes healthy adults ages 19–64yrs without risk factors.)
- LAIV is only approved for healthy nonpregnant people age 2–49yrs.

**Note:** LAIV may not be given to some adults; see contraindications and precautions listed in far right column.

**Schedule for vaccine administration**  
(any vaccine can be given with another)

- Give 1 dose every year in the fall or winter.
- Begin vaccination services as soon as vaccine is available and continue until the supply is depleted.
- Continue to give vaccine to unvaccinated adults throughout the influenza season (including when influenza activity is present in the community) and at other times when the risk of influenza exists.
- If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.

**Contraindications and precautions**  
(mild illness is not a contraindication)

- **Contraindications**
  - Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.
  - For LAIV only: pregnancy; chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic (including diabetes) disorders; immunosuppression (including that caused by medications or HIV).

- **Precautions**
  - Moderate or severe acute illness.
  - History of Guillain-Barré syndrome (GBS) within 6wks following previous influenza vaccination.
  - For LAIV only: close contact with an immunosuppressed person when the person requires protective isolation.
  - For LAIV only: receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination.

### Pneumococcal polysaccharide (PPSV)

**Give IM or SC**

- People age 65yrs and older.
- People younger than age 65yrs who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease (including asthma), chronic liver disease, alcoholism, diabetes, CSF leaks, cigarette smoking, as well as people living in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities).
- Those at highest risk of fatal pneumococcal infection, including people who
  - Have anatomic or functional asplenia, including sickle cell disease.
  - Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin’s disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome.
  - Are receiving immunosuppressive chemotherapy (including corticosteroids).
  - Have received an organ or bone marrow transplant.
  - Are candidates for or recipients of cochlear implants.

- Give 1 dose if unvaccinated or if previous vaccination history is unknown.
- Give a 1-time revaccination 5yrs or more after 1st dose to people
  - Age 65yrs and older if the 1st dose was given prior to age 65yrs
  - At highest risk of fatal pneumococcal infection or rapid antibody loss (see the 3rd bullet in the box to left for listings of people at highest risk).

**Contraindication**

Previous anaphylactic reaction to this vaccine or to any of its components.

**Precaution**

Moderate or severe acute illness.
### Vaccine name and route

#### MMR

**Measles, mumps, rubella**

*Give SC*

- People born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if there is no laboratory evidence of immunity or documentation of a dose given on or after the first birthday.
- People in high-risk groups, such as healthcare personnel (paid, unpaid, or volunteer), students entering college and other post–high school educational institutions, and international travelers, should receive a total of 2 doses.
- People born before 1957 are usually considered immune, but evidence of immunity (serology or documented history of 2 doses of MMR) should be considered for healthcare personnel.
- Women of childbearing age who do not have acceptable evidence of immunity (serology or documented history of 2 doses of MMR) should be considered for healthcare personnel.
- People in high-risk groups, such as healthcare personnel (paid, unpaid, or volunteer), students entering college and other post–high school educational institutions, and international travelers, should receive a total of 2 doses.

#### Varicella

**Chickenpox**

*Give SC*

- All adults without evidence of immunity.
  **Note:** Evidence of immunity is defined as written documentation of 2 doses of varicella vaccine; a history of varicella disease or herpes zoster (shingles) based on healthcare-provider diagnosis; laboratory evidence of immunity; and/or birth in the U.S. before 1980, with the exceptions that follow.
  - Healthcare personnel (HCP) born in the U.S. before 1980 who do not meet any of the criteria above should be tested or given the 2-dose vaccine series. If testing indicates they are not immune, give the 1st dose of varicella vaccine immediately.
  - Given the 2nd dose 4–8 wks later.
  - Pregnant women born in the U.S. before 1980 who do not meet any of the criteria above should either 1) be tested for susceptibility during pregnancy and if found susceptible, given the 1st dose of varicella vaccine postpartum before hospital discharge, or 2) not be tested for susceptibility and given the 1st dose of varicella vaccine postpartum before hospital discharge. Give the 2nd dose 4–8 wks later.

### Schedule for vaccine administration

(Any vaccine can be given with another)

#### MMR

- Give 1 or 2 doses (see criteria in 1st and 2nd bullets in box to left).
- If dose #2 is recommended, give it no sooner than 4 wks after dose #1.
- If a pregnant woman is found to be rubella susceptible, give 1 dose of MMR postpartum.
- If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, Zos, and/or yellow fever—they should be given on the same day.
  - If they are not, space them by at least 28 d.
  - Within 72 hrs of measles exposure, give 1 dose as postexposure prophylaxis to susceptible adults.
  **Note:** Routine post-vaccination serologic testing is not recommended.

#### Varicella

- Give 2 doses.
- Dose #2 is given 4–8 wks after dose #1.
- If dose #2 is delayed, do not repeat dose #1. Just give dose #2.
- If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, Zos, and/or yellow fever—they should be given on the same day.
  - If they are not, space them by at least 28 d.
  - May use as postexposure prophylaxis if given within 5 d.
  **Note:** Routine post-vaccination serologic testing is not recommended.

### Contraindications and precautions

#### MMR

- Previous anaphylactic reaction to this vaccine or to any of its components.
- Pregnancy or possibility of pregnancy within 4 wks.
- Severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy; or severely symptomatic HIV).
  **Note:** HIV infection is NOT a contraindication to MMR for those who are not severely immunocompromised (i.e., CD4+ T-lymphocyte counts are greater than or equal to 200 cells/µL).

#### Varicella

- Moderate or severe acute illness.
- If blood, plasma, and/or immune globulin were given in past 11 m, see ACIP statement General Recommendations on Immunization* regarding time to wait before vaccinating.
- History of thrombocytopenia or thrombocytopenic purpura.
  **Note:** If TST (tuberculosis skin test) and MMR are both needed but not given on same day, delay TST for 4–6 wks after MMR.

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**Summary of Recommendations for Adult Immunization (continued)**
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<table>
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<tr>
<th>Vaccine name and route</th>
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| **Td, Tdap** (Tetanus, diphtheria, pertussis) **Give IM** | • All adults who lack written documentation of a primary series consisting of at least 3 doses of tetanus- and diphtheria-toxoid-containing vaccine. | • For people who are unvaccinated or behind, complete the primary series with Td (spaced at 0, 1–2m, 6–12m intervals). A one-time dose of Tdap may be used for any dose if younger than age 65yrs. | **Contraindications**  
• Previous anaphylactic reaction to this vaccine or to any of its components.  
• For Tdap only, history of encephalopathy within 7d following DTP/DTaP.  
**Precautions**  
• Moderate or severe acute illness.  
• Guillain-Barré syndrome within 6wks following previous dose of tetanus-toxoid-containing vaccine.  
• Unstable neurologic condition.  
• History of Arthus reaction following a previous dose of tetanus- and/or diphtheria-toxoid-containing vaccine, including MCV4.  
**Note:** Tdap may be given to pregnant women at the provider’s discretion. |
| **Hepatitis A** (HepA) **Give IM**  
Brands may be used interchangeably. | • All people who want to be protected from hepatitis A virus (HAV) infection.  
• People who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan.  
• People with chronic liver disease; injecting and non-injecting drug users; men who have sex with men; people who receive clotting-factor concentrates; people who work with HAV in experimental lab settings; food handlers when health authorities or private employers determine vaccination to be appropriate.  
• People who anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days following the adoptee’s arrival in the U.S.  
• Adults age 40yrs or younger with recent (within 2 wks) exposure to HAV.  
For people older than age 40yrs with recent (within 2 wks) exposure to HAV, immune globulin is preferred over HepA vaccine. | • Give 2 doses.  
• The minimum interval between doses #1 and #2 is 6m.  
• If dose #2 is delayed, do not repeat dose #1. Just give dose #2. | | **Contraindications**  
For Twinrix (hepatitis A and B combination vaccine [GSK]) for patients age 18yrs and older only: give 3 doses on a 0, 1, 6m schedule. There must be at least 4wks between doses #1 and #2, and at least 5m between doses #2 and #3.  
An alternative schedule can also be used at 0, 7d, 21–30d, and a booster at 12m. |
| **Hepatitis B** (HepB) **Give IM**  
Brands may be used interchangeably. | • All people through age 18yrs.  
• All adults who want to be protected from hepatitis B virus infection.  
• High-risk people, including household contacts and sex partners of HBsAg-positive people; injecting drug users; sexually active people not in a long-term, mutually monogamous relationship; men who have sex with men; people with HIV; persons seeking evaluation or treatment for an STD; patients receiving hemodialysis and patients with renal disease that may result in dialysis; healthcare personnel and public safety workers who are exposed to blood; clients and staff of institutions for the developmentally disabled; inmates of long-term correctional facilities; and certain international travelers.  
• People with chronic liver disease.  
**Note:** Provide serologic screening for immigrants from endemic areas. If patient is chronically infected, assure appropriate disease management. For sex partners and household contacts of HBsAg-positive people, provide serologic screening and administer initial dose of HepB vaccine at same visit. | • Give 3 doses on a 0, 1, 6m schedule.  
• Alternative timing options for vaccination include 0, 2, 4m and 0, 1, 4m.  
• There must be at least 4wks between doses #1 and #2, and at least 8wks between doses #2 and #3. Overall, there must be at least 16wks between doses #1 and #3.  
• Schedule for those who have fallen behind: If the series is delayed between doses, DO NOT start the series over. Continue from where you left off. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precaution**  
Moderate or severe acute illness. |
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| **Human papillomavirus (HPV)**<br>(HPV2, Cervarix)<br>(HPV4, Gardasil)<br>Give IM | • All previously unvaccinated women through age 26yrs.  
• Consider giving HPV4 to men through age 26yrs to reduce their likelihood of acquiring genital warts. | • Give 3 doses on a 0, 2, 6m schedule.  
• There must be at least 4wks between doses #1 and #2 and at least 12wks between doses #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all three doses. | **Contraindication**
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precautions**
• Moderate or severe acute illness.  
• Data on vaccination in pregnancy are limited. Vaccination should be delayed until after completion of the pregnancy. |
| **Zoster**<br>(shingles)<br>(Zos)<br>Give SC | • People age 60yrs and older. | • Give 1-time dose if unvaccinated, regardless of previous history of herpes zoster (shingles) or chickenpox.  
• If 2 or more of the following live virus vaccines are to be given—MMR, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d. | **Contraindication**
Previous anaphylactic reaction to any component of zoster vaccine.  
**Precautions**
• Primary cellular or acquired immunodeficiency.  
• Pregnancy.  
• Moderate or severe acute illness.  
• Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination, if possible; delay resumption of these antiviral drugs for 14d after vaccination. |
| **Meningococcal conjugate vaccine**<br>(MCV4)<br>Menactra, Menveo<br>Give IM | • All people age 11 through 18yrs.  
• Unvaccinated college freshmen who live in dormitories.  
• People with anatomic or functional asplenia or persistent complement deficiency.  
• People who travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the “meningitis belt” of Sub-Saharan Africa).  
• Microbiologists routinely exposed to isolates of *N. meningitidis*.  
• Military recruits | • Give 1 dose.  
• MCV4 is preferred over MPSV4 for people age 55yrs and younger; use MPSV4 ONLY if age 56yrs or older or if there is a permanent contraindication/precaution to MCV4.  
• If previous vaccine was MCV4 or MPSV4, revaccinate after 5yrs if risk continues.  
• If the only risk factor is living in a campus dormitory, there is no need to give a 2nd dose if previous dose was MCV4. | **Contraindication**
Previous anaphylactic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV4).  
**Precautions**
• Moderate or severe acute illness.  
• For MCV4 only, history of Guillain-Barré syndrome (if not at extremely high risk for meningococcal disease).  
• In pregnancy, studies of vaccination with MPSV4 have not documented adverse effects so may use MPSV4, if indicated. No data are available on the safety of MCV4 during pregnancy. |
| **Meningococcal polysaccharide vaccine**<br>(MPSV4)<br>Give SC | • Not routinely recommended for U.S. residents age 18yrs and older.  
**Note:** Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Previously vaccinated adults can receive 1 booster dose if traveling to polio endemic areas or to areas where the risk of exposure is high. | • Refer to ACIP recommendations* regarding unique situations, schedules, and dosing information. | **Contraindication**
Previous anaphylactic reaction to this vaccine or to any of its components.  
**Precautions**
• Moderate or severe acute illness.  
• Pregnancy. |