### Summary of Recommendations for Adult Immunization

Adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP)* by the Immunization Action Coalition, April 2008

#### Contraindications and precautions

Adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP)* by the Immunization Action Coalition, April 2008

### Vaccine name and route

**Influenza**

- **Trivalent inactivated influenza vaccine (TIV)**
  - *Give IM*
- **Live attenuated influenza vaccine (LAIV)**
  - *Give intranasally*

**Pneumococcal polysaccharide (PPV)**

- *Give IM or SC*

**Zoster (shingles)**

- *Give SC*

#### Note: LAIV may not be given to some of the persons listed below; see contraindications listed in far right column.

**Influenza**

- All persons who want to reduce the likelihood of becoming ill with influenza or of spreading it to others.
- Persons age 50yrs and older. [TIV only]
- Persons with medical problems (e.g., heart disease, lung disease, diabetes, renal dysfunction, hemoglobinopathy, immunosuppression). [TIV only]
- Persons with any condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration (e.g., cognitive dysfunction, spinal cord injury, seizure disorder, or other neuromuscular disorder). [TIV only]
- Persons living in chronic care facilities. [TIV only]
- Persons who work or live with high-risk people.
- Women who will be pregnant during the influenza season (December–spring). [If currently pregnant, TIV only]
- All healthcare personnel and other persons who provide direct care to high-risk people.
- Household contacts and out-of-home caregivers of children age 0–59m.
- Travelers at risk for complications of influenza who go to areas where influenza activity exists or who may be among people from areas of the world where there is current influenza activity (e.g., on organized tours). [TIV only]
- Students or other persons in institutional settings (e.g., residents of dormitories or correctional facilities).

**Pneumococcal polysaccharide**

- Persons age 65yrs and older.
- Persons who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease, chronic liver disease, alcoholism, diabetes, CSF leak, as well as people living in special environments or social settings (including Alaska Natives and certain American Indian populations).
  - Those at highest risk of fatal pneumococcal infection, including persons who
    - have anatomic asplenia, functional asplenia, or 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.

**Zoster (shingles)**

- ACIP has voted to recommend herpes zoster (shingles) vaccine for all persons age 60yrs and older who do not have contraindications. Provisional recommendations are online at www.cdc.gov/vaccines/recs/provisional/default.htm#acip.

#### Schedule for vaccine administration

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>For whom vaccination is recommended</th>
<th>Schedule for vaccine administration (any vaccine can be given with another)</th>
<th>Contraindications and precautions (mild illness is not a contraindication)</th>
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</thead>
<tbody>
<tr>
<td><strong>Influenza</strong></td>
<td></td>
<td>Give 1 dose every year in the fall or winter.</td>
<td>Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Begin vaccination services as soon as vaccine is available and continue until the supply is depleted.</td>
<td>For LAIV only, age 50 years or older, pregnancy, asthma, reactive airway disease other than chronic disorder of the pulmonary or cardiovascular system; an underlying medical condition, including metabolic disease such as diabetes, renal dysfunction, and hemoglobinopathy; a known or suspected immune deficiency disease or current receipt of immunosuppressive therapy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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.</td>
<td>Precautions: Moderate or severe acute illness.</td>
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<td>If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, and/or yellow fever vaccine—they should be given on the same day. If they are not, space them by at least 28d.</td>
<td>For TIV only, history of Guillain-Barré syndrome (GBS) within 6wks of previous TIV.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Give IM or SC if 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, and/or yellow fever vaccine—they should be given on the same day. If they are not, space them by at least 28d.</td>
<td>For LAIV only, history of GBS within 6wks of a previous influenza vaccination.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Give 1 dose if unvaccinated or if previous vaccination history is unknown.</td>
<td>Previous anaphylactic reaction to this vaccine or to any of its components.</td>
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<td></td>
<td></td>
<td>Give a 1-time revaccination at least 5yrs after 1st dose to persons - 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 persons at highest risk)</td>
<td></td>
</tr>
</tbody>
</table>

*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, call the CDC-INFO Contact Center at (800) 232-4636; visit CDC’s website at www.cdc.gov/vaccines/pubs/ACIP-list.htm; or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip. This table is revised periodically. Visit IAC’s website at www.immunize.org/adultrules to make sure you have the most current version.

Technical content reviewed by the Centers for Disease Control and Prevention, April 2008.
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<th>Vaccine name and route</th>
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| **Hepatitis B** (HepB) Give IM Brands may be used interchangeably. | - All persons through age 18yrs.  
- All adults wishing to obtain immunity against hepatitis B virus infection.  
- High-risk persons, including household contacts and sex partners of HBsAg-positive persons; injecting drug users; sexually active persons not in a long-term, mutually monogamous relationship; men who have sex with men; persons 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.  
- Persons with chronic liver disease.  
**Note:** Provide serologic screening for immigrants from endemic areas. If patient is chronically infected, assure appropriate disease management. Screen sex partners and household members; give HepB at the same visit if not already vaccinated.  
- Previous anaphylactic reaction to this vaccine or to any of its components. | - 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. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or any of its components.  
**Precaution**  
Moderate or severe acute illness. |
| **Hepatitis A** (HepA) Give IM Brands may be used interchangeably. | - All persons wishing to obtain immunity to hepatitis A virus infection.  
- Persons who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan.  
- Persons with chronic liver disease; injecting and non-injecting drug users; men who have sex with men; people who receive clotting-factor concentrates; persons who work with hepatitis A virus in experimental lab settings (not routine medical laboratories); and food handlers when health authorities or private employers determine vaccination to be appropriate.  
**Note:** Vaccination testing is likely to be cost effective for persons older than age 40yrs, as well as for younger persons in certain groups with a high prevalence of hepatitis A virus infection.  
- Previous anaphylactic or neurologic reaction to this vaccine or to any of its components. | - 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. | **Contraindication**  
Previous anaphylactic reaction to this vaccine or any of its components.  
**Precautions**  
- Moderate or severe acute illness.  
- Safety during pregnancy has not been determined, so benefits must be weighed against potential risk. |
| **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.  
- A booster dose of tetanus- and diphtheria-toxoid-containing vaccine may be needed for wound management as early as 5yrs after receiving a previous dose, so consult ACIP recommendations.  
*Using tetanus toxoid (TT) instead of Td or Tdap is not recommended.*  
- In pregnancy, when indicated, give Td or Tdap in 2nd or 3rd trimester. If not administered during pregnancy, give Tdap in immediate postpartum period.  
**For Tdap only:**  
- All adults younger than age 65yrs who have not already received Tdap.  
- Healthcare personnel who work in hospitals or ambulatory care settings and have direct patient contact and who have not received Tdap.  
- Adults in contact with infants younger than age 12m (e.g., parents, grandparents younger than age 65yrs, childcare providers, healthcare personnel) who have not received a dose of Tdap should be prioritized for vaccination.  
- For persons who are unvaccinated or behind, complete the primary series with Td (spaced at 0, 1–2m, 6–12m intervals). One-time dose of Tdap may be used for any dose if age 18–64yrs.  
- Give Td booster every 10yrs after the primary series has been completed. For adults age 18–64yrs, a 1-time dose of Tdap is recommended to replace the next Td.  
- Intervals of 2yrs or less between Td and Tdap may be used.  
**Note:** The two Tdap products are licensed for different age groups: Adacel® (Sanofi) for use in persons age 11–64yrs and Boostrix® (GSK) for use in persons age 10–18yrs.  
- For Tdap only:  
- Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider’s discretion.  
**Contraindications**  
Previous anaphylactic reaction to this vaccine or any of its components.  
**Precautions**  
- Moderate or severe acute illness.  
- GBS within 6wks of receiving a 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:** Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider’s discretion.  
- For Tdap only, history of encephalopathy within 7d following DTP/DTaP.  
**Precautions**  
- Moderate or severe acute illness.  
- GBS within 6wks of receiving a 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:** Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider’s discretion.  
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**Precautions**  
- Moderate or severe acute illness.  
- GBS within 6wks of receiving a 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:** Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider’s discretion.  
- For Tdap only, history of encephalopathy within 7d following DTP/DTaP. | **Contraindications**  
- For Tdap only, history of encephalopathy within 7d following DTP/DTaP.  
**Precautions**  
- Moderate or severe acute illness.  
- GBS within 6wks of receiving a 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:** Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider’s discretion.  
- For Tdap only, history of encephalopathy within 7d following DTP/DTaP. | **Contraindications**  
- For Tdap only, history of encephalopathy within 7d following DTP/DTaP.  
**Precautions**  
- Moderate or severe acute illness.  
- GBS within 6wks of receiving a 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:** Use of Td/Tdap is not contraindicated in pregnancy. Either vaccine may be given during trimester #2 or #3 at the provider’s discretion.  
- For Tdap only, history of encephalopathy within 7d following DTP/DTaP. |
| **Polio** (IPV) Give IM or SC | Not routinely recommended for persons 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 (i.e., India, Pakistan, Afghanistan, and Nigeria). Previously vaccinated adults can receive one booster dose if traveling to polio endemic areas.  
- Refer to ACIP recommendations regarding unique situations, schedules, and dosing information. |  | **Contraindication**  
Previous anaphylactic or neurologic reaction to this vaccine or any of its components.  
**Precautions**  
- Moderate or severe acute illness.  
- Pregnancy. |

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. An alternative schedule can also be used at 0, 7, 21–30d, and a booster at 12m.
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<tr>
<td>Varicella (Var) (Chickenpox) Give SC</td>
<td>• All adults without evidence of immunity. <strong>Note:</strong> Evidence of immunity is defined as written documentation of 2 doses of varicella vaccine; born in the U.S. before 1980 (exceptions: healthcare personnel and pregnant women); a history of varicella disease or herpes zoster based on healthcare-provider diagnosis; laboratory evidence of immunity; and/or laboratory confirmation of disease.</td>
<td>• Give 2 doses.  • Dose #2 is given 4–8wks after dose #1.  • If the second dose 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, and/or yellow fever vaccine—they should be given on the same day. If they are not, space them by at least 28d.</td>
<td><strong>Contraindications</strong>  • Previous anaphylactic reaction to this vaccine or to any of its components.  • Pregnancy or possibility of pregnancy within 4wks.  • Persons immunocompromised because of malignancy and primary or acquired cellular immunodeficiency, including HIV/AIDS (although vaccination may be considered if CD4+ T-lymphocyte counts are greater than or equal to 200 cells/µL. See MMWR 2007;56,RR-4). <strong>Precautions</strong>  • If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement General Recommendations on Immunization* regarding time to wait before vaccinating.  • Moderate or severe acute illness. <strong>Note:</strong> For those on high-dose immunosuppressive therapy, consult ACIP recommendations regarding delay time.*</td>
</tr>
<tr>
<td>Meningococcal Conjugate vaccine (MCV4) Give IM Polysaccharide vaccine (MPSV) Give SC</td>
<td>• All persons age 11 through 18yrs.  • College freshmen living in a dormitory.  • Persons with anatomic or functional asplenia or with terminal complement component deficiencies.  • Persons 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 <em>N. meningitidis</em>.</td>
<td>• Give 1 dose.  • If previous vaccine was MPSV, revaccine after 5yrs if risk continues.  • Revaccination after MCV4 is not recommended.  • MCV4 is preferred over MPSV for persons age 55yrs and younger, although MPSV is an acceptable alternative.</td>
<td><strong>Contraindication</strong>  Previous anaphylactic or neurologic reaction to this vaccine or to any of its components, including diphtheria toxoid (for MCV4). <strong>Precautions</strong>  • Moderate or severe acute illness.  • For MCV4 only, history of Guillain-Barré syndrome (GBS).</td>
</tr>
<tr>
<td>MMR (Measles, mumps, rubella) Give SC</td>
<td>• Persons born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if there is no serologic proof of immunity or documentation of a dose given on or after the first birthday.  • Persons in high-risk groups, such as healthcare personnel, students entering college and other post–high school educational institutions, and international travelers, should receive a total of 2 doses.  • Persons born before 1957 are usually considered immune, but proof of immunity (serology or vaccination) may be desirable for healthcare personnel.  • Women of childbearing age who do not have acceptable evidence of rubella immunity or vaccination.</td>
<td>• 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 4wks after dose #1.  • If a pregnant woman is found to be rubella susceptible, administer MMR postpartum.  • If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, and/or yellow fever vaccine—they should be given on the same day. If they are not, space them by at least 28d.</td>
<td><strong>Contraindications</strong>  • Previous anaphylactic reaction to this vaccine or to any of its components.  • Pregnancy or possibility of pregnancy within 4wks.  • Persons immunocompromised because of cancer, leukemia, lymphoma, immunosuppressive drug therapy, including high-dose steroids or radiation therapy. <strong>Note:</strong> HIV positivity is NOT a contraindication to MMR except for those who are severely immunocompromised (i.e., CD4+ T-lymphocyte counts are less than 200 cells/µL). <strong>Precautions</strong>  • If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement General Recommendations on Immunization* regarding time to wait before vaccinating.  • Moderate or severe acute illness.  • History of thrombocytopenia or thrombocytopenic purpura. <strong>Note:</strong> If PPD (tuberculosis skin test) and MMR are both needed but not given on same day, delay PPD for 4–6wks after MMR.</td>
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<tr>
<td>Human papillomavirus (HPV) Give IM</td>
<td>All previously unvaccinated women through age 26yrs.</td>
<td>• 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.</td>
<td><strong>Contraindication</strong>  Previous anaphylactic reaction to this vaccine or to any of its components. <strong>Precaution</strong>  Data on vaccination in pregnancy are limited. Vaccination should be delayed until after completion of the pregnancy.</td>
</tr>
</tbody>
</table>