

2013 Adult Immunization (IZ) Schedule



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IMMUNIZATION PROGRAM
www.publichealth.lacounty.gov/ip



Rules & Courtesy



-The speaker has disclosed that there is NO financial interests related to the content of this presentation (see evaluation form)



Educational Objectives



1. Explain two configurations used to interpret the immunization recommendations on the 2013 adult schedule.
2. List four immunizations for adults that are recommended by the Advisory Committee on Immunization Practices (ACIP)
3. State three major high-risk medical indications for adult vaccine administration.
4. List two major reasons Healthcare Personnel (HCP) are recommended for vaccination.
5. Identify two primary indications for immunizing ethnically diverse adults, age 19 years and older in Los Angeles County.



Why Are Immunizations and Infectious Diseases Important?



www.healthypeople.gov

- Vaccine-preventable diseases still occur in the U.S.
 - Viral hepatitis, influenza, and tuberculosis (TB) remain the leading causes of illness/death in the U.S.
 - Account for substantial spending on the VPDs
- VPD surveillance at Federal, State, and local levels, is an essential tool to fight against new/emerging/re-emerging infectious diseases. Important defenses against VPD include:
 - Proper use of vaccines; Antibiotics; Screening/testing guidelines and Scientific improvements in the diagnosis of infectious disease-related health concerns.
- Vaccines are among the most cost-effective clinical preventive services and a core component of any preventive services package. Adult/Childhood immunization programs provide a very high return on investment!

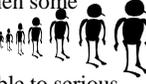
E-mail: healthypeople@nhic.org



Why might some adults need vaccines?

Some adults incorrectly assume that the vaccines they received as children will protect them for the rest of their lives! *This could be true, except that:*

- Some adults were never vaccinated as children
 - Not completely immunized
- Newer vaccines were not available when some adults were children
- Immunity can begin to fade over time
- As we age, we become more susceptible to serious disease caused by common infections (e.g., flu, pneumococcal, pertussis/whooping cough)
- Vaccines may be required for job, school or travel




VPD Personal Stories (Measles -1)

- 15 y.o. boy traveling from Southeast Asia; had symptoms of measles during the plane ride
- Two passengers, 12 and 19 months of age, exposed during the flight
- 25 y.o. Customs officer exposed during the 15 y.o.'s entry into the U.S.
 - a rash noted a week later, but went to work, exposing over 70 officers and persons entering customs
 - Also went to the hospital for treatment; 19 hospital staff exposed



VPD – Personal Stories (Rubella -2)

- 33 y.o. Asian female born in the U.S.
- Attended dental school
- Traveled to Southeast Asia for work. Possibly exposed during her stay in Asia
 - Visited health care provider prior to her departure
- 6 prenatal care visits starting a 3 mo gestation
 - No record of vaccination or evidence of immunity
 - Private insurance
- Mother had no sign/symptoms of rubella (rash, fever, swollen lymph nodes) during pregnancy
- Infant born with congenital rubella



VPD Personal Stories (Varicella -3)

- 58 y.o. male w/ history of diabetes, renal insufficiency, necrotizing fasciitis
 - Admitted to hospital & dx with varicella; died
- 43 y.o. male dx with Prostate CA; admitted to hospital for varicella and immunodeficiency
 - Died from varicella pneumonia



Varicella: Candy Anyone?



- Mail-order scheme to share lollipops licked by children infected with chickenpox
- Used to avoid getting chicken pox vaccines for their children - to get natural immunity
- Impractical and very dangerous
- Not a very effective way to transmit chickenpox
- Federal crime to send diseases, viruses, contagions through the mail

<http://publichealth.lacounty.gov/ghcommon/public/newsalert>
<http://abcnews.go.com/blogs/health/2011/11/06/parents-warned-about-mail-order-chicken-pox-lollipops>



Why is it important to vaccinate Healthcare Personnel (HCP)?



- Ensuring that HCP are immune to vaccine preventable diseases (VPDs) is an essential part of occupational health programs
 - Prevent transmission of VPDs and eliminate unnecessary work restrictions
 - Safeguards health of workers and protects patients from exposure to infected workers
 - Substantially reduces both number of susceptible HCP and risks for transmission of VPDs to other workers and patients
 - Reduction in absenteeism (*Flu*)



Standard and California Senate Bill 739 Requiring HCPs *Flu* Vaccination



- California SB 739: Hospital requirement, effective July 1, 2007
 - **Mandates all general acute care hospitals offer onsite flu vaccinations at no cost**
 - Offer annual onsite flu vaccination for staff/independent practitioners
 - If employee elects **not** to be vaccinated, must decline that vaccination in writing



Current ACIP Recommendations for HCP

- Hepatitis B – *all HCP and trainees born in areas with high infection rates should be tested; 3-dose series for HCP who are not immune*
- MMR – history of disease no longer adequate;
 - *Lab confirmation or documentation of 2 doses is required*
- Varicella – evidence of immunity
 - *Written documentation of 2 doses*
 - *Lab evidence of immunity or confirmation of disease*
 - *Previous diagnosis of varicella or herpes zoster by MD*
- Tdap – *all HCP should receive 1 dose*
- MCV4 – *2 doses for HCP with anatomic/functional asplenia, HIV, complement deficiencies*
- Influenza – *all HCP should receive 1 dose/yr*



Center for Disease Control and Prevention
MMWR Morbidity and Mortality Weekly Report
 Supplement 10A.02 February 7, 2013

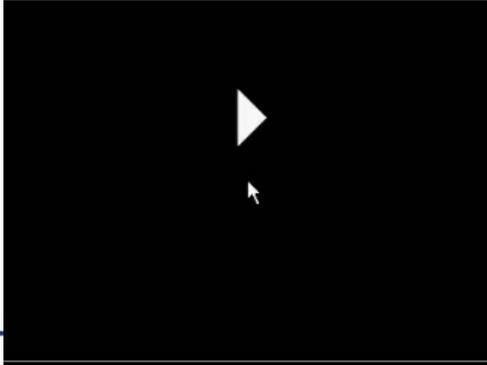
Advisory Committee on Immunization Practices (ACIP) Recommended Immunization Schedules for Persons Aged 0 Through 18 Years and Adults Aged 19 Years and Older — United States, 2013



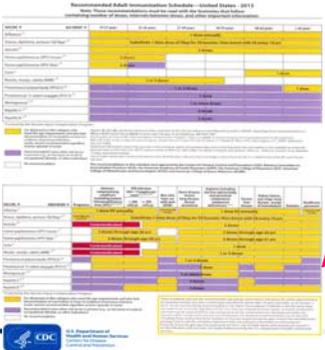
www.cdc.gov/mmwr

U.S. Department of Health and Human Services
 Center for Disease Control and Prevention

New Adult Immunization Schedule: A Quick Overview



Recommended Adult Immunization Schedule - United States 2013 by Age Group & Medical Indications



New Vaccine listed: PCV 13

U.S. Department of Health and Human Services
 Center for Disease Control and Prevention

Footnotes: Recommended Immunization Schedule for Adults Aged 19 Years and Older — United States, 2013



U.S. Department of Health and Human Services
 Center for Disease Control and Prevention

TABLE. Contraindications and precautions to commonly used vaccines in adults^{1,2*}

Vaccine	Contraindications	Precautions
Influenza, inactivated vaccine (IM)	Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine or to a vaccine component, including egg protein.	Moderate or severe acute illness with or without fever. History of Guillain-Barré syndrome (GBS) within 6 weeks of previous influenza vaccination. Persons who experience only illness with exposure to eggs should receive IM with additional safety precautions. ³
Influenza, live attenuated (LAIV) ³	Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine or to a vaccine component, including egg protein. Contraindications to which the Advisory Committee on Immunization Practices (ACIP) recommends against use, but which are not contraindications to vaccine package insert, immune suppression, certain chronic medical conditions such as asthma, diabetes, heart or kidney disease, and pregnancy. ⁴	Moderate or severe acute illness with or without fever. History of GBS within 6 weeks of previous influenza vaccination. Receipt of specific antiviral (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) within 48 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination.
Tetanus, diphtheria, pertussis (Tdap); tetanus, diphtheria (Td)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. For pertussis-containing vaccine: anaphylaxis to any component, decreased level of consciousness, or prolonged seizure not attributable to another identifiable cause within 7 days of administration of a previous dose of Tdap or diphtheria and tetanus toxoids and acellular pertussis (DTPa) vaccine.	Moderate or severe acute illness with or without fever. GBS within 6 weeks after a previous dose of tetanus toxoids-containing vaccine. History of Guillain-Barré syndrome after a previous dose of tetanus or diphtheria toxoids-containing vaccine within 6 weeks after a previous dose of tetanus toxoids-containing vaccine. For pertussis-containing vaccines: progressive or unstable neurologic disorder, uncontrolled seizure, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.
Varicella ²	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. Recent receipt of antibody-containing blood product (specific interval depends on product). ⁵ Moderate or severe acute illness with or without fever. Receipt of specific antiviral (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination.	Recent receipt of antibody-containing blood product (specific interval depends on product). ⁵ Moderate or severe acute illness with or without fever. History of thrombocytopenia (thrombocytopenic purpura, heparin-induced thrombocytopenia, or heparin-induced thrombocytopenia-like syndrome) or patients with human immunodeficiency virus (HIV) infection who are severely immunocompromised. Pregnancy.
Human papillomavirus (HPV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever. Pregnancy.
Zoster	Severe allergic reaction (e.g., anaphylaxis) to a vaccine component. Recent receipt of antibody-containing blood product (specific interval depends on product). ⁵ Moderate or severe acute illness with or without fever. Receipt of specific antiviral (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination. Avoid use of these antiviral drugs for 14 days after vaccination.	Moderate or severe acute illness with or without fever. Pregnancy.
Measles, mumps, rubella (MMR) ²	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. Recent receipt of antibody-containing blood product (specific interval depends on product). ⁵ Moderate or severe acute illness with or without fever. History of thrombocytopenia (thrombocytopenic purpura, heparin-induced thrombocytopenia, or heparin-induced thrombocytopenia-like syndrome) or patients with human immunodeficiency virus (HIV) infection who are severely immunocompromised. Pregnancy.	Moderate or severe acute illness with or without fever. Recent receipt of antibody-containing blood product (specific interval depends on product). ⁵ History of thrombocytopenia (thrombocytopenic purpura, heparin-induced thrombocytopenia, or heparin-induced thrombocytopenia-like syndrome). Need for tuberculin skin testing. ⁶

TABLE. (Continued) Contraindications and precautions to commonly used vaccines in adults^{1,2*}

Vaccine	Contraindications	Precautions
Pneumococcal polysaccharide (PPSV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Pneumococcal conjugate (PCV13)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Meningococcal conjugate (MCV4); meningococcal polysaccharide (MPSV4)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Hepatitis A (HepA)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.
Hepatitis B (HepB)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.	Moderate or severe acute illness with or without fever.

U.S. Department of Health and Human Services
 Center for Disease Control and Prevention

Current Adult IZ schedule (Tdap/Td)

Tdap and Td vaccines - Footnote updated to indicate:

- One dose of Tdap vaccine to pregnant women during *each* pregnancy (*preferred during 27–36 weeks gestation*), regardless of years since prior Td or Tdap vaccination.
- Tdap to all other adults who have not previously received Tdap or for whom vaccine status is unknown.
 - *Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-toxoid containing vaccine.*
- Adults with an unknown or incomplete history of completing a 3-dose primary vaccination series with Td-containing vaccines should begin or complete a primary vaccination series including a Tdap dose.



Current Adult IZ schedule (HPV)

- Two vaccines are licensed for use in females, bivalent HPV vaccine (HPV2 - *Cervarix*) and quadrivalent HPV vaccine (HPV4 - *Gardasil*), one vaccine for use in males HPV4.
 - *Routine 3-dose series for females/males aged 11-12;*
 - *Age 13-26 years if not previously vaccinated;*
 - *Males age 22-26 years who are MSM;*
 - *Recommended for immunocompromised, including HIV positive persons through age 26 years;*
 - *HPV vaccines are not recommended for use in pregnant women. However, pregnancy testing is not needed before vaccination.*



Current Adult IZ schedule (Hep B /Zoster)

- Hep B vaccine - recommended for adults younger than 60 years old who have diabetes, ASAP after diagnosis.
 - *Recommended for adults ≥ 60 years with diabetes at the discretion of the physician.*
- Zoster vaccine –FDA approved for persons 50 years of age and older; however, ACIP continues to recommend vaccination begin at age 60 years of age.
 - *Regardless of whether they report a prior episode of herpes zoster (Shingles).*
 - *Although zoster vaccination is not specifically recommended for HCP, they should receive the vaccine if they are in the recommended age group.*



Current Adult IZ schedule (MMR)

- Adults born before 1957 generally are considered immune to measles/ mumps.
- All adults born in 1957 or later should have documentation of 1 or more doses of MMR unless they have a medical contraindication to the vaccine, lab evidence of immunity to each of the three diseases, or documentation of provider-diagnosed measles or mumps disease.
- **For unvaccinated HCP born before 1957** who lack lab evidence of measles, mumps, and/or rubella immunity or lab confirmation of disease, health-care facilities should consider vaccinating personnel with 2 doses of MMR vaccine
- A routine second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who:
 - are students in postsecondary educational institutions;
 - work in a health-care facility or; plan to travel internationally.



Current Adult IZ schedule -Meningococcal

MCV4 and MPSV4 vaccines: specific age and risk groups:

- Two doses of meningococcal **MCV4** at least 2 months apart to adults with functional asplenia or persistent complement component deficiencies.
 - *HIV-infected persons who are vaccinated also should receive 2 doses*
- First-year college students -age 21 years who are living in residence halls should be vaccinated if they have not received a dose on or after their 16th birthday
- Revaccination is recommended every 5 years for adults previously vaccinated with MCV4 or MPSV4 who remain at increased risk for infection (e.g., adults with anatomic or functional asplenia or persistent complement component deficiencies).



Hepatitis A Vaccination Recommendations

- Hepatitis A vaccine recommendations updated to clarify vaccination for persons with a history of either injection or non-injection illicit drug use.
 - Men who have sex with men (MSM);
 - Persons working with HAV-infected primates OR in a research lab; with chronic liver disease, who receive clotting factor concentrates; and traveling to or working in countries with high endemicity of hep A;
 - Unvaccinated persons who anticipate close personal contact with international adoptees.



Influenza (*flu*) Vaccination Recommendations

- All persons aged 6 months and older, including pregnant women, can receive the **inactivated influenza vaccine (IIV)** known as the “*shot*” or intramuscular (IM).
- LAIV (FluMist) administered intranasal and approved **only** for healthy persons age 2-49 years. **NOT pregnant!**
- Intradermal (ID) is also IIV and is an option for adults age 18-64 years
- Adults aged 65 years and older can receive the standard dose IIV **or** the high-dose IIV (Fluzone HD)

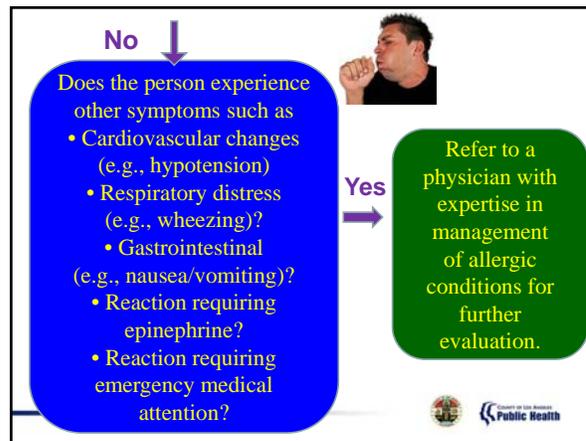
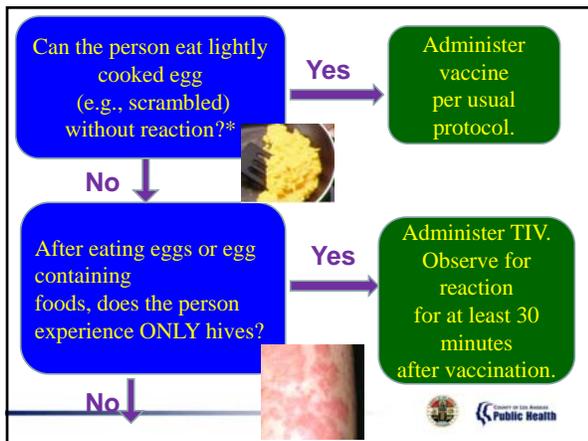
**thimerosal restrictions & (2012-13 temporary exemption until 6/30/13)*



Precautions Associated with Flu Vaccination

- Presence of a moderate or severe acute illness with or without a fever;
- Persons who were hospitalized with an acute illness but who are now well enough to be discharged from a hospital **can be** vaccinated;
- Guillain-Barré Syndrome (GBS) within 6 weeks of a previous dose of an influenza vaccine (TIV or LAIV); and
- **Severe egg allergy is a precaution for influenza vaccine, not a contraindication (all US licensed/recommended flu vaccines are made using egg-based manufacturing processes)** →

www.cdc.gov/mmwr/preview/mmwrhtml/mm6033a3.htm



Deltoid muscle IM injection

FluMist Administration

Intradermal (ID) injection given in the deltoid muscle - for persons 18-64 years

Pneumococcal polysaccharide (PPSV23)

- PPSV 23 vaccination recommendations:
 - All adults 65 years and older without history of vaccination
 - Persons 2-64 years of age who have chronic illness;
 - immunocompromising conditions ;
 - functional or **anatomic asplenia** (e.g., sickle cell disease and other hemoglobinopathies, congenital or acquired asplenia, splenic dysfunction, or splenectomy) *i.e. healthy 32 yo man without a spleen*
 - Adults age 19-64 years who have asthma or smoke cigarettes



PCV13 →



Pneumococcal conjugate 13-valent vaccine (PCV13)

- Adults 19 years and older with immunocompromising conditions and other selected health issues are recommended to receive PCV13 and;
 - > followed by a dose of PPSV23 at least 8 weeks later.
- Adults with the aforementioned conditions who have previously received one or more doses of PPSV23 should receive a dose of PCV13 one or more years after the last PPSV23 dose was received;
- For those that require additional doses of PPSV23, the first dose should be given *no sooner* than 8 weeks after PCV13 and at least 5 years since the most recent dose of PPSV23.




Any Questions about Adult Immunizations?



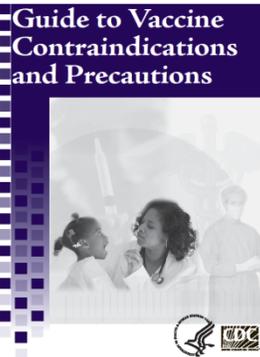

Before Vaccination




- Vaccine Information Statement {VIS}
 - It's a Federal Law to provide the VIS!
- Obtain Consent - vaccines are covered under general consents
- Screening questionnaire for **adult** immunizations
 - Review 2013 schedule, recommendations and contraindications



Guide to Vaccine Contraindications and Precautions



Always screen for any contraindications and precautions to vaccine

- History of severe hypersensitivity to a prior dose
- Severe allergic reactions to vaccine component
- Moderate to severe acute illness

www.cdc.gov/vaccines/recs/vac-admin/downloads/contraindications-guide-508.pdf

OR

www.publichealth.lacounty.gov/ip



California Immunization Registry*(CAIR)



To enroll in CAIR Call the Help Desk 800-578-7889



Important Vaccine Considerations

- Emergency Procedures
- Vaccine Adverse Event Reporting System form (VAERS)
- Storage and Handling
 - refrigerated between 35°F and 46° F






So What Can We Say About Vaccines?

- Safe
- Highly effective
- Saves billions of lives
- Reduces the rates of infectious disease
- Decades of life-expectancy
- Have eliminated a huge burden of suffering and disability



US Fed News Service, Jul 14, 2008



Where is the Scientific Evidence that Vaccines are Harmful?

- No causal relationship between MMR and autism
 - Institute of Medicine
- Many studies done – no link between thimerosal-containing vaccines and autism
- Autism present before it is recognized by parents or health care providers
- Medical and legal authorities dispute that vaccines are harmful



How to Improve Adult IZ Coverage Levels

- Adult coverage remains low for routinely recommended vaccines and well below *Healthy People 2020* targets.
- Strategies to improve vaccination rates:
 - Assess vaccination status during each health care visit
 - Educate adults and promote vaccinations in your practice
 - Use preventive flow sheets
 - Use patient/clinic reminders for needed vaccinations (i.e. immunization registry)
 - Develop tracking systems for vaccinations (i.e. immunization registry)
 - Provide walk-in immunization services



Immunization Resources

- www.eziz.org
- <http://www.cdc.gov/vaccines/>
- www.cdc.gov/vaccines/recs/acip/
- www.cdph.ca.gov/programs/immunize/Pages/default.aspx
- www.merckhelps.com
- www.needymeds.com
- www.publichealth.lacounty.gov/ip/
 - General Information and Handouts
 - Vaccine Fact Sheets
 - B71 Recommendations (Info for Healthcare Providers)
 - Download forms (e.g. VIS, VAERs, etc.)



Questions?

Please complete your post-test & evaluation...

Thank you all for promoting "Adult Immunizations!"

www.publichealth.lacounty.gov/ip
(213) 351-7800



After you have turned-in your post-test along with the Evaluation we will review the post-test.

Thank you!



CEU Post-Test: Adult Immunization Recommendations

Name: _____ AN or PN: _____ Title: _____
 Your profession: Nurse NP RN LVN MA Physician Other _____
 For each question, please check only one answer.

1. For which of the following persons will you recommend vaccination with LAV (FluAid)?
 (Please check one answer only)
 A healthy 21 year-old college student
 A healthy 40 year-old pregnant woman
 A 10 year-old man with asthma
 An overweight 20 month-old toddler
 All of the above

2. For which of the following groups will you not recommend Adult Tdap vaccination?
 (Please check one answer only)
 Healthcare workers
 Persons 65 years and older not previously vaccinated
 Pregnant women in their 2nd trimester
 Post-partum women not previously vaccinated with Tdap

3. If a patient reports an allergy to eggs, they can be administered the influenza (Flu) vaccine if they:
 (Please check one answer only)
 Eat scrambled eggs and experience hypertension
 Experience respiratory distress after eating a boiled egg
 Experience a reaction requiring epinephrine
 Experience hives only after eating eggs or egg-containing foods

4. For which of the following persons will you recommend PPV23?
 (Please check one answer only)
 An 18 month old toddler with asthma
 A healthy 32 year-old man without a spleen
 A 3 year-old boy in preschool with no history of chronic disease
 A 64 year-old woman diagnosed with depression

5. Healthcare personnel (HCP) should receive the Tdap vaccination:
 (Please check one answer only)
 When feasible if they have not previously received it and regardless of time since the last Td dose
 Only if the HCP is over the age of 21 years but younger than 65 years
 If they received their first Tdap in the last six months
 When their employer provides the vaccination at a reasonable cost

Thank you for your time. Please return this form to the Presenter.

San Joaquin County Department of Public Health Immunization Program (revised June 8, 2012)