



# Arizona Vaccine News

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### VACCINE AND VACCINE-PREVENTABLE DISEASE NEWS

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- Pneumovax® Now Needed for Adults Who Smoke or Have Asthma
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- Influenza Vaccination during Pregnancy Protects Navajo and Apache Infants
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### VACCINE AND VACCINE-PREVENTABLE DISEASE NEWS

#### Protect Infants from Pertussis by “Cocooning”

- Give pertussis vaccine to everyone in contact with a newborn in order to create a “cocoon” of protection.
- Infants need vaccine cocooning against pertussis because:
  - Infants are susceptible to pertussis from birth, and do not have full protection until after the 3rd pertussis vaccine which is usually given at 6 months of age
  - Infants are the age group that is most likely to die from pertussis
  - Seventy-six percent of the source of infant pertussis is from adults and adolescents, and 75% of the source of infant pertussis is from family members.
- Mothers who have not previously been vaccinated against pertussis should receive pertussis vaccine (Tdap) immediately after delivery.
- Breastfeeding is not a contraindication to pertussis vaccination.
- All parents, siblings, grandparents, babysitters, child care workers, and other contacts of infants should be fully vaccinated against pertussis
- All health care workers should be vaccinated against pertussis, especially those who have direct contact with infants and pregnant women

## Pertussis Outbreak in California is Continuing

- California has had 5,658 pertussis cases and 9 infant deaths in 2010 as of 10/12/2010. This is the most cases of pertussis in California in 60 years. All infants were less than 3 months old.  
<http://www.cdph.ca.gov/programs/immunize/Documents/PertussisReport10-12-2010.pdf>
- Arizona has had 295 confirmed and probable pertussis cases and no pertussis-related deaths so far in 2010 as of 10/2/2010. There were 277 confirmed and probable pertussis cases in Arizona in 2009. [http://www.azdhs.gov/phs/oids/data\\_reports.htm](http://www.azdhs.gov/phs/oids/data_reports.htm)

## CA & AZ Adolescent School Tdap Rules to Prevent the Spread of Pertussis

- In response to the ongoing California pertussis outbreak, California has passed a law to require students in 7th-12th grades to receive a whooping cough booster shot.  
<http://immunizeca.org/index.pacq?id=94&tier=2>
- Arizona instituted a rule in 2008 requiring adolescents to receive pertussis vaccine. By 2014 school year, all students in 6<sup>th</sup> – 12<sup>th</sup> grades will fall under the pertussis vaccine requirement. Currently, Arizona students in 6<sup>th</sup> – 8<sup>th</sup> grades are required to have received Tdap if it has been  $\geq$  5 years since their last tetanus-containing vaccine. See Arizona Administrative Code R9-6-702.  
[http://www.azsos.gov/public\\_services/Title\\_09/9-06.htm](http://www.azsos.gov/public_services/Title_09/9-06.htm)

## Pneumovax® Now Needed for Adults Who Smoke or Have Asthma

- The Advisory Committee for Immunization Practices (ACIP) of the Centers for Disease Control and Prevention added adults with asthma and adults who smoke to the list of patients who should receive the 23-valent pneumococcal polysaccharide vaccine (PPSV23)
- These new recommendations have now been published in the September 3, 2010 issue of Morbidity and Mortality Weekly Report.
- ACIP has also revised its recommendation for use of PPSV23 among American Indians and Alaska Natives. Routine use of PPSV23 is no longer recommended for persons aged <65 years in these populations unless they have a medical condition or other indication for PPSV23.
- However, in certain situations, public health authorities may recommend PPSV23 for Alaska Natives and American Indians aged 50--64 years who are living in areas where the risk for invasive pneumococcal disease is increased.

See Morbidity and Mortality Weekly Report (MMWR) September 3, 2010

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5934a3.htm>

## Only 26% of Arizona Children Received Seasonal Influenza Vaccine in 2009-2010

- Only 26.2% of Arizona children ages 6 months-18 years old received at least one seasonal influenza vaccine in the 2009-2010 influenza season according to the October 8, 2010 issue of Morbidity and Mortality Weekly Report. This was an increase from 20% in the 2008-2009 influenza season.
- The highest percentage of children receiving at least one seasonal influenza vaccine was in the 6-23 month age group (46.4%).  
[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5939a2.htm?s\\_cid=mm5939a2\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5939a2.htm?s_cid=mm5939a2_w)

## AAP Recommends Mandatory Influenza Shots for All Health Care Personnel

- The American Academy of Pediatrics (AAP) has come out in support of mandatory influenza immunizations for all health care personnel to protect patients and the community as well as the individual health care worker. See Pediatrics October 2010, pp. 809-815. <http://pediatrics.aappublications.org/cgi/reprint/126/4/809>

## Worldwide Influenza Activity Update

- Identification of circulating influenza strains suggests that this year's seasonal influenza vaccine will be a good match for the circulating strains in the US.
- Antiviral susceptibility testing for oseltamivir (Tamiflu®) and zanamivir (Relenza®) was done on recent influenza isolates from around the world and from the US. None had resistance to these two neuraminidase inhibitors.
- Adamantane testing was done on recent influenza isolates from foreign countries and the US. All were found to be resistant to adamantanes.

See MMWR October 8, 2010.

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5939a3.htm?s\\_cid=mm5939a3\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5939a3.htm?s_cid=mm5939a3_e)

## VACCINE AND VACCINE PREVENTABLE DISEASE LITERATURE

### No Risk of Autism from Thimerosal in Vaccines and Immunoglobulins

- A case-control study of 256 autistic children in three managed care organizations showed that prenatal exposure and early-life exposure to thimerosal did not increase the risk of autism spectrum disorders.

See Pediatrics, October 2010. <http://pediatrics.aappublications.org/cgi/reprint/126/4/656>

### Influenza Vaccination during Pregnancy Protects Navajo and Apache Infants

- During three influenza seasons, 1169 mother-infant pairs from the Navajo and White Mountain Apache Indian reservations were followed.
- Infants born to mothers who received influenza vaccine during pregnancy had a 41% reduction in the risk of laboratory-confirmed influenza infection and a 39% reduction in the risk of influenza-like illnesses leading to hospitalization, when compared with infants born to unvaccinated mothers.

See Archives of Pediatrics & Adolescent Medicine, October 4, 2010.

<http://archpedi.ama-assn.org/cgi/content/abstract/archpediatrics.2010.192v1>

### Early Oseltamivir Treatment of Influenza in Young Children Is Beneficial

- Starting oseltamivir (Tamiflu®) treatment within 24 hours of the onset of symptoms provided substantial clinical benefits to children 1–3 years of age who had influenza A infection.

See Clinical Infectious Diseases, October 15, 2010, pp. 887-894.

<http://www.journals.uchicago.edu/doi/abs/10.1086/656408>

## Rotavirus Vaccine Shown to Have Some Efficacy in Developing Countries

- The efficacy of live pentavalent rotavirus vaccine against severe gastroenteritis in infants was 48% in Asian countries and 39% in African countries.\*
- The efficacy of rotavirus vaccine in high and middle-income countries has been much higher, with 85% to 98% protection against severe rotavirus disease and 74% to 87% protection against any rotavirus disease. See Pediatrics, May 2009.  
<http://aappolicy.aappublications.org/cgi/content/full/pediatrics;123/5/1412>
- The differences in efficacy are likely due to factors such as higher titers of transplacental or breast-milk antibodies, malnutrition, tropical enteropathy, intercurrent infections, or different circulating rotavirus strains.
- The severity of disease in low-income counties still makes the vaccine beneficial.

\*See two articles in the August 21, 2010 issue of Lancet.

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(10\)60755-6/abstract#](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60755-6/abstract#)  
[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(10\)60889-6/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60889-6/abstract)

## INFLUENZA VACCINE RESOURCES

### Three Resources to Determine Doses of Influenza Vaccine for Children 6 Months-8 Years Old

- The Immunization Action Coalition has developed a table to help practitioners decide the number of doses of influenza vaccine for young children this season.  
<http://www.immunize.org/catg.d/p3093.pdf>
- The Centers for Disease Control and Prevention has developed an algorithm for deciding how many influenza vaccine doses that young children need. See page 34 of the August 6, 2010 issue of MMWR. <http://www.cdc.gov/mmwr/pdf/rr/rr5908.pdf>
- The AAP has a similar algorithm that can be found in the AAP's "Policy Statement—Recommendations for Prevention and Control of Influenza in Children, 2010–2011" in the October issue of Pediatrics (following page 826).  
<http://pediatrics.aappublications.org/cgi/reprint/126/4/816>

### Other Useful Influenza Links for This Influenza Season

- Arizona Department of Health Services weekly influenza surveillance report.  
<http://www.azdhs.gov/phs/oids/epi/flu/index.htm>
- Maricopa County
  - Stop the Spread campaign. [www.stopthespreadaz.org](http://www.stopthespreadaz.org)
  - English influenza page.  
[http://www.maricopa.gov/Public\\_Health/HotTopics/influenza/default.aspx](http://www.maricopa.gov/Public_Health/HotTopics/influenza/default.aspx)
  - Spanish influenza page.  
[http://www.maricopa.gov/Public\\_Health/HotTopics/lagripe/default.aspx](http://www.maricopa.gov/Public_Health/HotTopics/lagripe/default.aspx)
- Influenza Vaccine Finder on the US Department of Health and Human Services' influenza page. [www.flu.gov](http://www.flu.gov)
- Centers for Disease Control and Prevention's influenza page. [www.cdc.gov/flu](http://www.cdc.gov/flu)
- The Arizona Partnership for Immunization. [www.whyimmunize.org](http://www.whyimmunize.org)
- Community Information Referral (for Arizona influenza vaccine clinic locations).  
[www.cir.org](http://www.cir.org)

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<http://www.azdhs.gov/phs/immun/index.htm>