Adult Vaccinations

Understanding Vaccination Needs for Adults and Seniors

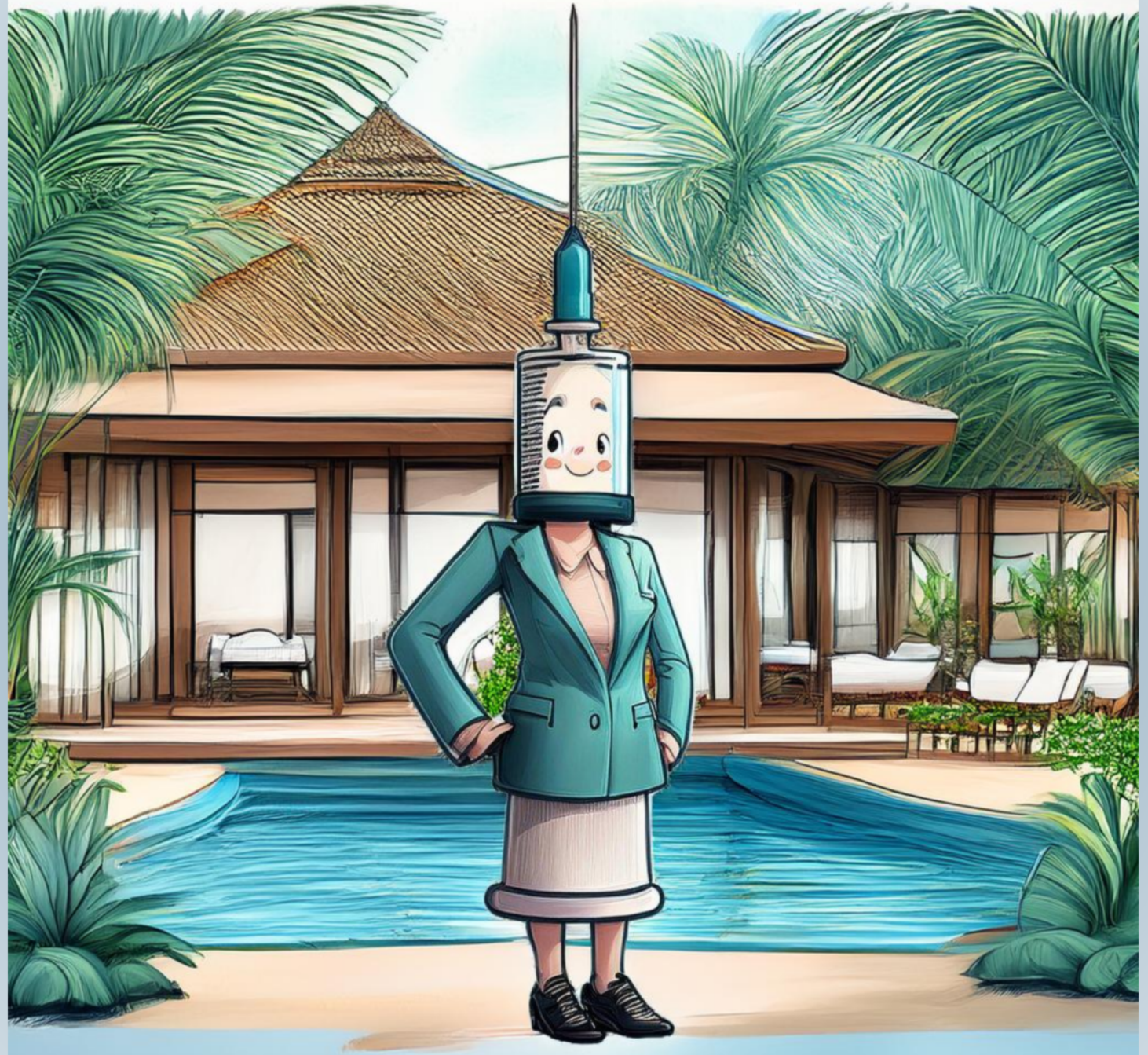
Andrew JP Carroll MD FAAFP

Clinical Assistant Professor, Dept of Family and Community Medicine, University of Arizona College of Medicine - Phoenix

Senior Medicial Director - Intracare

Financial Disclosures

- Andrew Carroll, faculty for this CE activity, has no relevant financial relationship(s) with ineligible companies to disclose.
- None of the planners for this activity have relevant financial relationships to disclose with ineligible companies.
- The Arizona Alliance for Community Health Centers is accredited by the Arizona Medical Association to provide medical education for physicians.
- The Arizona Alliance for Community Health Centers designated the 2025 Arizona Immunization Conference educational activity for a maximum of 11 hours AMA PRA Category 1 Credits Physicians should only claim credit commensurate with the extent of their participation in the activity.
- The Arizona Pharmacy Association is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education.

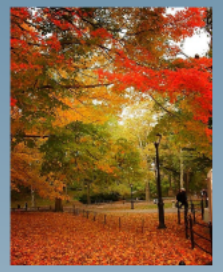


Slowly he would cruise the neighborhood, waiting for that occasional careless child who confused him with another vendor.

Overview of Adult Vaccinations

Seasonal Vaccines

Flu vaccines
Covid
RSV



ADULT VACCINATIONS

- Tdap
- HPV
- Hepatitis A
- Hepatitis B
- Shingles
- Meningitis

Senior Vaccines

- Pneumonia (Recommendations now start at 50 yo)
- RSV
- Shingles
- Tdap

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Pneumonia Vaccines

Pneumococcal Vaccine Timing for Adults

Make sure your patients are up to date with pneumococcal vaccination.

Adults ≥50 years old
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥1 year[†] → PPSV23[¶]
PPSV23 only at any age	≥1 year → PCV20 or PCV21	≥1 year → PCV15
PCV13 only at any age	≥1 year → PCV20 or PCV21	NO OPTION B
PCV13 at any age & **PPSV23** at <65 yrs	≥5 years → PCV20 or PCV21	

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines
[¶] If PPSV23 is not available, PCV20 or PCV21 may be used
[†] Consider minimum interval (8 weeks) for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak (CSF) leak
[§] For adults with an immunocompromising condition, cochlear implant, or CSF leak, the minimum interval for PPSV23 is ≥8 weeks since last PCV13 dose and ≥5 years since last PPSV23 dose; for others, the minimum interval for PPSV23 is ≥1 year since last PCV13 dose and ≥5 years since last PPSV23 dose

Shared clinical decision-making for those who already completed the series with PCV13 and PPSV23

Prior vaccines	Shared clinical decision-making option for adults ≥65 years old
Complete series: PCV13 at any age & **PPSV23** at ≥65 yrs	≥5 years → PCV20 or PCV21 — Together, with the patient, vaccine providers **may choose** to administer PCV20 or PCV21 to adults ≥65 years old who have already received PCV13 (but not PCV15, PCV20, or PCV21) at any age and PPSV23 at or after the age of 65 years old.

www.cdc.gov/pneumococcal/index.html

CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

Adults 19–49 years old with specified immunocompromising conditions
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥8 weeks → PPSV23[¶]
PPSV23 only	≥1 year → PCV20 or PCV21	≥1 year → PCV15
PCV13 only	≥1 year → PCV20 or PCV21	NO OPTION B
PCV13 and **1 dose of PPSV23**	≥5 years → PCV20 or PCV21	
PCV13 and **2 doses of PPSV23**	≥5 years → PCV20 or PCV21	**No vaccines** recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 50 years old.
Immunocompromising conditions	• Chronic renal failure • Congenital or acquired asplenia • Congenital or acquired immunodeficiency[§] • Generalized malignancy	• HIV infection • Hodgkin disease • Iatrogenic immunosuppression[¶] • Leukemia • Lymphoma	• Multiple myeloma • Nephrotic syndrome • Sickle cell disease/other hemoglobinopathies • Solid organ transplant

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines
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[§] Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease)
[¶] Includes diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy

https://www.cdc.gov/pneumococcal/downloads/Vaccine-Timing-Adults-JobAid.pdf?utm_medium=email&utm_source=govdelivery

Pneumococcal Vaccine Timing for Adults

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Adults ≥50 years old
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twindemic

Flu and Covid

INFLUENZA VACCINE PRODUCT GUIDE 2024-2025

6 MONTHS & OLDER

Fluarix® Trivalent
GlaxoSmithKline Biologicals
0.5 mL single-dose syringe

Flucelvax® Trivalent
Seqirus
0.5 mL single-dose syringe

Afluria® Trivalent
Seqirus
5.0 mL multi-dose vial*

FluLaval® Trivalent
GlaxoSmithKline Biologicals
0.5 mL single-dose syringe

Fluzone® Trivalent
Sanofi Pasteur, Inc.
0.5 mL single-dose

Flucelvax® Trivalent
Seqirus
5.0 mL multi-dose vial*

3 YEARS & OLDER

Afluria® Trivalent
Seqirus
0.5 mL single-dose syringe

Fluzone® Trivalent
Sanofi Pasteur, Inc.
5.0 mL multi-dose vial*

2–49 YEARS OLD & HEALTHY

FluMist® Trivalent
Astrazeneca
0.2 mL single-dose nasal sprayer

18 YEARS & OLDER

FluBlok® Trivalent
Sanofi Pasteur, Inc.
0.5 mL single-dose syringe

65+

65 YEARS & OLDER

FLUAD® Adjuvanted Trivalent Seqirus
0.5 mL single-dose syringe

65+

Fluzone® High-Dose Trivalent Sanofi Pasteur, Inc.
0.5 mL single-dose syringe

65+

STORE ALL INFLUENZA VACCINES IN THE REFRIGERATOR.

VFC Questions:
Call 877-2Get-VFC
(877-243-8832)

State General Fund (SGF) Flu Program participants can contact:
sgfvaccine@cdph.ca.gov

Children under 9 years of age with a history of fewer than 2 doses of influenza vaccine are recommended to receive 2 doses this flu season. See CDC Website

Vaccines available through the Vaccines for Children Program in 2024-25 should only be used for VFC-eligible children 18 years of age or younger.

* Multi-dose flu vaccines, which contain thimerosal, should NOT be given to pregnant women and children under 3 years of age unless Secretary of the Health and Human Services Agency issues an exemption (CA Health & Safety Code 124172).

65+ Preferred vaccine product for persons 65 or older. If not available, any other age-appropriate inactivated product may be given.

CDPH

California Department of Public Health IMM-859 (8/24)

COVID-19 Vaccine Timing 2024-25 –Routine Schedule

For online version and details view Interim Clinical Considerations for Use of COVID-19 Vaccines.
Schedule is subject to change.

Age*	Vaccine	If unvaccinated:	If had any prior doses, give 2024-25 doses:
6 months–4 years†	Pfizer–Infant/Toddler	1st Dose → 3-8 weeks** → 2nd Dose → ≥8 weeks → 3rd Dose	If 1 prior dose, then: 3-8** weeks → 1 → ≥8 weeks → 2 If ≥2 prior doses, then: ≥8 weeks → 1
	Moderna–Pediatric≠	1st Dose → 4-8 weeks** → 2nd Dose	If 1 prior dose, then: 4-8 weeks → 1 If ≥2 prior doses then: ≥8 weeks → 1
5 –11 years	Moderna–Pediatric≠	1 Dose	If 1 or more prior doses (of any of the brands), then^: ≥2 months → 1 → 2024-25 Moderna/Pfizer/Novavax
	Pfizer–Pediatric	1 Dose	
12+ years	Pfizer–Adol/Adult (Comirnaty)	1 Dose → 6 months§ → Ages 65+ years: Additional Dose Moderna/Pfizer/Novavax	If 1 or more prior doses (of any of the brands), then^: Ages 12-64 years: ≥2 months → 1 → 2024-25 Moderna/Pfizer/Novavax Ages 65+ years: ≥2 months → 1 → 6 months§ → 2
	Moderna–Adol/Adult (Spikevax)	1 Dose	
	Novavax	1st Dose → 3-8 weeks** → 2nd Dose¶	

* See CDC recommendations for children transitioning from a younger to older age group
† Children 6 months – 4 years should receive the same brand of the updated vaccine as the prior doses they received.
** An 8-week interval may be preferable for some people, especially for males 12-39 years.
≠ All Moderna doses 6 months – 11 years are 0.25 mL (25 mcg).
^ Janssen (J & J) vaccine has been deauthorized. Follow schedule for 12+ years for any prior doses.
§ Minimum interval 2 months.
¶ If >8 weeks passed since the first Novavax dose, any 2024–25 COVID-19 vaccine (Moderna/Pfizer/Novavax) may be given.

CDPH

California Department of Public Health, Immunization Branch IMM-1396 (11/4/24) Page 1 of 2

eziz.org

INFLUENZA VACCINE PRODUCT GUIDE 2024-2025

6 MONTHS & OLDER

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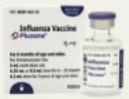

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Flu and Covid

COVID-1

For online version a
Schedule is subject

Age*	V
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* See CDC recomm
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California Departm

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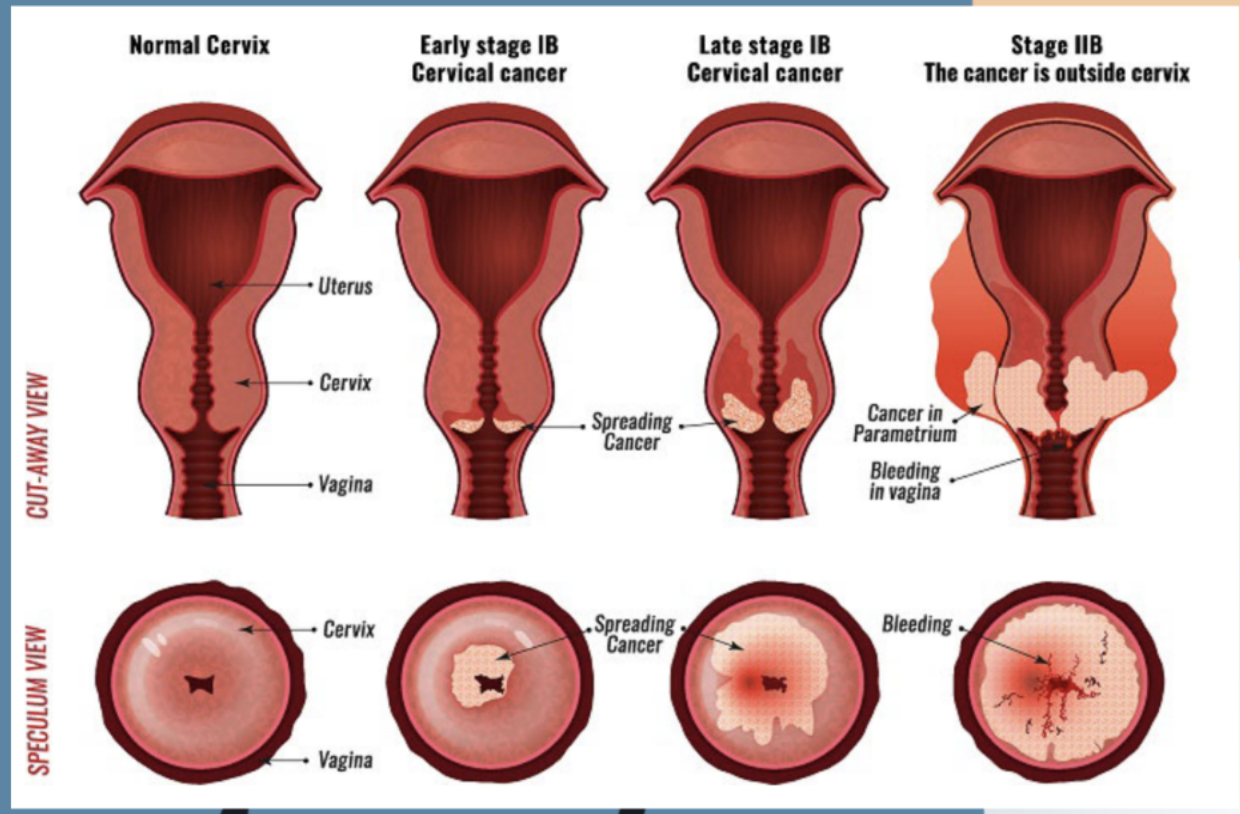
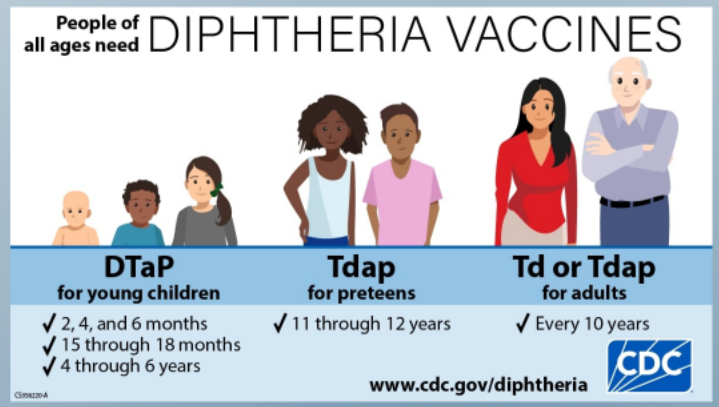
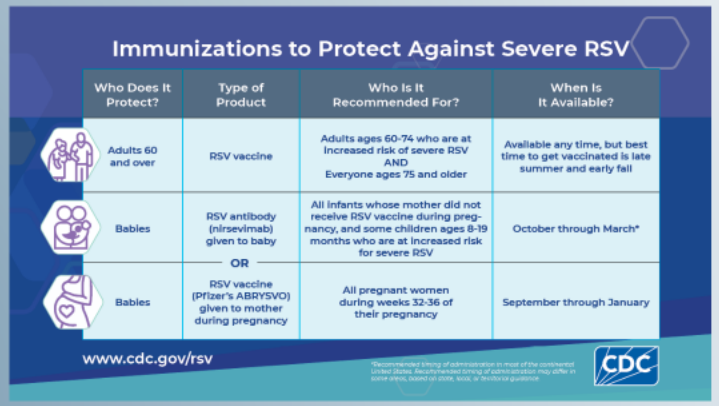
HPV - The Only Vaccine Against Cancer

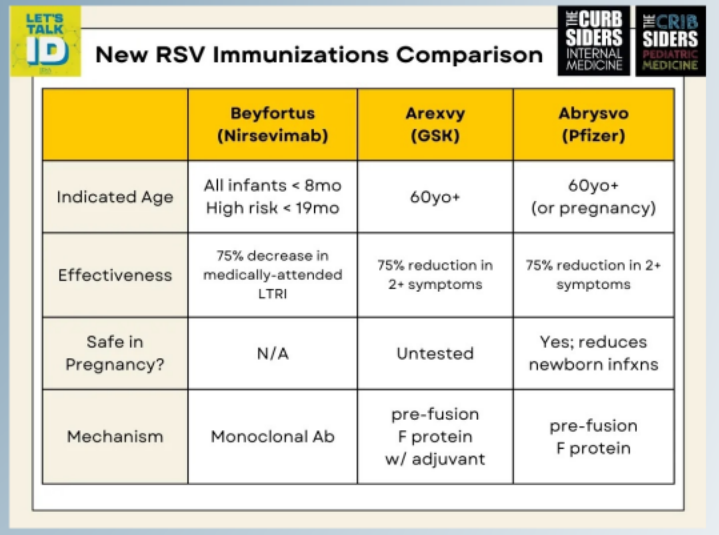
- Emphasis about attempting to vaccinate prior to first sexual activity, but is okay to receive at any time
- Discussion about safety, efficacy, long-term studies
- Reduction of cervical screening intervals
- Study in Lancet showed 80% reduction in cervical neoplasia in immunized cohort



Interval Vaccines

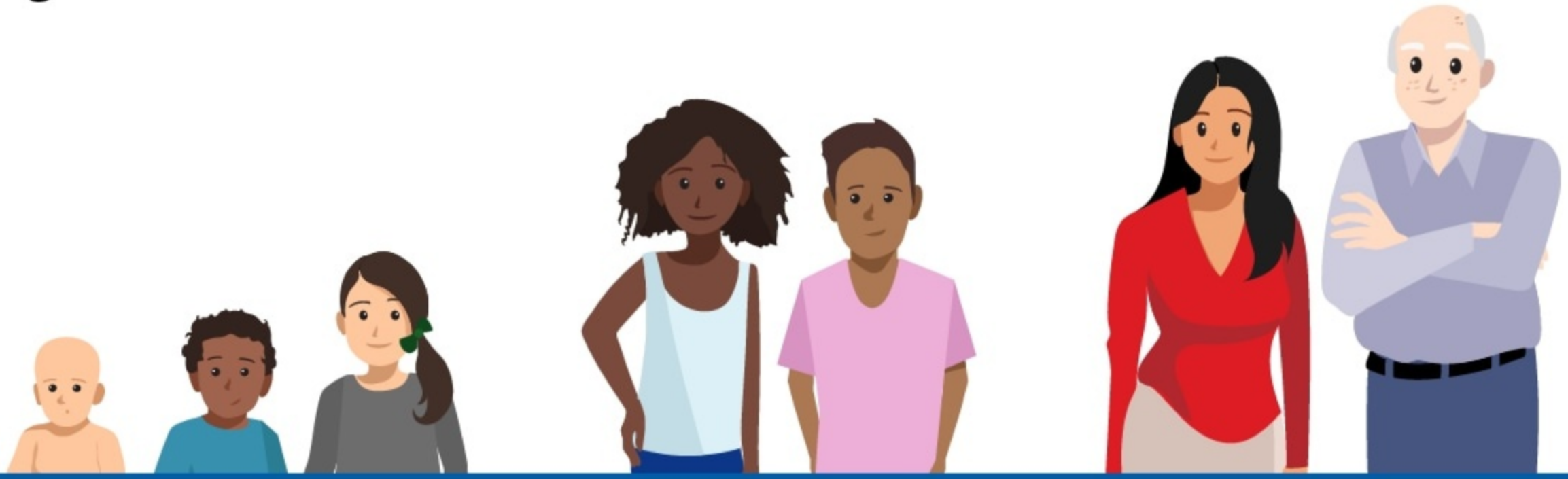






	Beyfortus (Nirsevimab)	Arexvy (GSK)	Abrysvo (Pfizer)
Indicated Age	All infants < 8mo High risk < 19mo	60yo+	60yo+ (or pregnancy)
Effectiveness	75% decrease in medically-attended LTRI	75% reduction in 2+ symptoms	75% reduction in 2+ symptoms
Safe in Pregnancy?	N/A	Untested	Yes; reduces newborn infxns
Mechanism	Monoclonal Ab	pre-fusion F protein w/ adjuvant	pre-fusion F protein

People of all ages need DIPHTHERIA VACCINES



DTaP
for young children

- ✓ 2, 4, and 6 months
- ✓ 15 through 18 months
- ✓ 4 through 6 years

Tdap
for preteens

- ✓ 11 through 12 years

Td or Tdap
for adults

- ✓ Every 10 years

www.cdc.gov/diphtheria

CDC

CS356220-A

Immunizations to Protect Against Severe RSV

Who Does It Protect?	Type of Product	Who Is It Recommended For?	When Is It Available?
 Adults 60 and over	RSV vaccine	Adults ages 60-74 who are at increased risk of severe RSV AND Everyone ages 75 and older	Available any time, but best time to get vaccinated is late summer and early fall
 Babies	RSV antibody (nirsevimab) given to baby OR	All infants whose mother did not receive RSV vaccine during pregnancy, and some children ages 8-19 months who are at increased risk for severe RSV	October through March*
 Babies	RSV vaccine (Pfizer's ABRYSVO) given to mother during pregnancy	All pregnant women during weeks 32-36 of their pregnancy	September through January

www.cdc.gov/rsv

*Recommended timing of administration in most of the continental United States. Recommended timing of administration may differ in some areas, based on state, local, or territorial guidance.

CDC

New RSV Immunizations Comparison

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Safe in Pregnancy?	N/A	Untested	Yes; reduces newborn infxns
Mechanism	Monoclonal Ab	pre-fusion F protein w/ adjuvant	pre-fusion F protein

What You Can Expect After Getting **Shingrix**

MORE THAN 90% PROTECTION AGAINST SHINGLES

Common Side Effects

Where you got the shot:

- redness
- swelling
- pain

The rest of your body:

- muscle aches
- tiredness
- headache
- shivering
- fever
- stomach pain
- nausea

These side effects may affect your ability to do daily activities, but they should go away on their own in a few days.

Remember

- Get the second dose of Shingrix even if you have a reaction after the first dose.
- Taking an over-the-counter pain medicine such as ibuprofen or acetaminophen after getting Shingrix can help ease discomfort from side effects.
- Contact your doctor if you have serious side effects.

Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases

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Touchpoints for Discussion

When to Bring up Vaccines

- Wellness exams
- Biometric exams
- Participation exams
- Travel consultations
- Seasonal
- Injuries
- Prenatal discussions- parents and grandparents

How to have the discussion

- Make it part of a normal assessment of their preventive health
- Have staff work as a team to flank the patient with assessments
- Empower staff to encourage patients to be updated on vaccines
- Ask about life events--new children, grandchildren, etc
- Ask about upcoming vacation plans

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Travel and Personal Risks

- MMR
- Hepatitis A
- Hepatitis B
- Typhoid (Typhim and Vivotif Berna)
- Japanese Encephalitis
- mPox
- Yellow Fever
- Meningococcal vaccines
- Cholera
- Chikungunya

Others and Conclusions

Travel and Personal Risks

- MMR
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- Hepatitis B
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- Japanese Encephalitis
- mPox
- Yellow Fever
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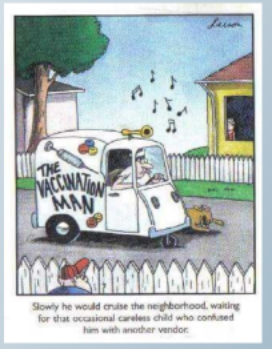

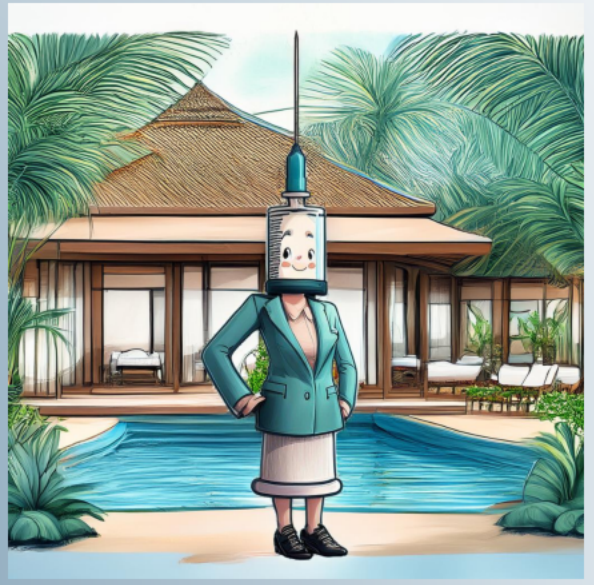

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- None of the planners for this activity have relevant financial relationships to disclose with ineligible companies.
- The Arizona Alliance for Community Health Centers is accredited by the Arizona Medical Association to provide medical education for physicians.
- The Arizona Alliance for Community Health Centers designated the 2025 Arizona Immunization Conference educational activity for a maximum of 11 hours AMA PRA Category 1 Credits Physicians should only claim credit commensurate with the extent of their participation in the activity.
- The Arizona Pharmacy Association is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education.

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11 Information sharing and motivational interviewing techniques can build trust and make vaccine-hesitant patients more open to getting the shot.
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