NEWBORN

2 WEEK WELL BABY CHECK

Estimated Time: 15 minutes • Debriefing Time: 15 minutes

Scan to Begin

Patient Name: Noah Bailey

SCENARIO OVERVIEW

Noah Bailey is coming to the clinic for his 2-month baby checkup. Students can assess head and chest circumference, obtain vital signs and perform a medication reconciliation, as well as administer appropriate immunizations.

This scenario is written for use in both high- and low-fidelity environments. In high-fidelity environments, the QR codes can be used to augment the reality of the simulators. In low-fidelity environments, the QR codes can be used to stimulate discussion about patient care and immunizations.

LEARNING OBJECTIVES

1. Obtain newborn assessment data
2. Perform medication reconciliation
3. Administer infant immunizations according to CDC recommendations
4. Provide patient education and counseling

CURRICULUM MAPPING

PROGRAM OUTCOMES

- Provide patient care in accordance with regulations, policies, laws, and patient rights
- Demonstrate professionalism in a healthcare setting
- Demonstrate safety and emergency practices in a healthcare setting

SIMULATION LEARNING ENVIRONMENT & SET-UP

ENVIRONMENT

Inside room: Tape measure, Thermometer for Axillary temperature

Inside or outside room: Hand sanitizer or sink for hand hygiene

PATIENT PROFILE

Name: Noah Bailey

DOB: XX/XX/20XX

Age: 2 months old

MR#: 170511

Gender: Male

Height: 58 cm (23.2 inches)

Birth Weight: 3.68 kg (8.1 lbs)

Current Weight: 4.31 kg (9.5 lbs)

Allergies: NKDA

Code Status: Full code

EQUIPMENT/SUPPLIES/SETTINGS

Patient

- Wearing a diaper and dressed in baby clothes; can be placed in a car seat

Monitor Settings

- No monitor

Supplies

- General
    - If available: car seat
    - Variety of syringe and needle selections for students to select correct size for IM injection for a newborn. (In a low-fidelity environment, QR codes for syringes and needles have been provided.)
- Medications/Immunizations (QR codes are also provided)
    - Acetaminophen drops
    - Hepatitis B
    - RV (Rotavirus)
    - DTaP (Tetanus and Pertussis)
    - Hib
    - PCV (Pneumococcal)
    - IPV combo (Polio)

QR CODES

START	REPORT	PARENT	FACILITATOR
CHEST CIRCUMFERENCE VIDEO	HEAD CIRCUMFERENCE VIDEO	POSITIONING FOR INJECTION	INJECTION SITE A
INJECTION SITE B	SYRINGE 1 ML	SYRINGE INSULIN	SYRINGE 3 ML
SYRINGE 10 ML	SYRINGE 20 ML	NEEDLE 23G 1IN	NEEDLE 25G 5/8 IN

NEEDLE 22G 1.5 IN	NEEDLE 18G 1.5IN	MED PREP CANNULA	ACETAMINOPHEN DROPS
DTAP	HEPATITIS B	HIB	IPV (POLIO)
PCV (PNEUMOCOCCAL)	ROTAVIRUS		

TEACHING PLAN

PREBRIEF

The facilitator should lead this portion of the simulation. The following steps will guide you through Prebrief.

- Scan the **QR Code: "Scan to Begin"** while students are in Prebrief.
- "Meet Your Patient" (on iPad) and explain how the iPad works in the simulated learning environment including:
    - Explain how to use the iPad scanner and QR codes.
    - As the facilitator, you should be aware that throughout the simulation some QR codes are necessary to the programming of the iPad content. Directions for which QR codes are required (to be scanned) in each state are listed under each state of the documentation below. The QR codes are also in **BOLD** type.
    - Level tab – This tab "tells" the content in the iPad to change to what is needed for the next state of a simulation. It is used a few times in this scenario after the provider is notified to display new orders (those just given over the phone) and lab results, etc…
- Discuss the simulation "Learning Objective(s)" (on iPad) as well as any other Prebrief materials
- Get "Report" on iPad
    - Possible Facilitator Question
        - What is generally included in a 2 month well baby checkup?
- View Parent video
    - How will you respond to the dad's question about immunizations?
- The facilitator should allow time for students to look through the information provided on the iPad tabs, which are also described below. Potential guided discussion questions are provided underneath the tabbed data.

PATIENT PROFILE

Patient information is provided here

MEDICAL PROBLEMS LIST

Problem List

Currently Known Medical Problem(s)
5. Newborn Jaundice; received phototherapy in hospital 6. Post circumcision

Suggested Facilitator Questions

- Describe newborn jaundice.
- What is phototherapy?

GROWTH RECORD

Growth records are available here for Head Circumference and Length and Weight for Age. Printable versions are available in Appendix A

VITALS

An enterable form is available here for student input.

FLACC SCALE

FLACC Scale

Categories	Scoring		
	0	1	2
Face	No particular expression or smile	Occasional grimace or frown, withdrawal, disinterested	Frequent to constant quivering chin, clenched jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid or jerking
Cry	No cry (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging or being talked to, distractable	Difficult to console or comfort
Each of 5 categories is scored from 0-2 which results in total score between 0-10			

Credit: Merkel, S., Voepel-Lewis, T., Shayevitz, J., Malveya, S. (1997), The FLACC Scale: A Behavioral Scale for Scoring Post-Operative Pain in Young Children. Pediatric Nursing, 23(3): 293-297.

Suggested Facilitator Question

- How is pain assessed in infants?

LABS

Newborn Panel					
	On birth	20 hours old		Units	Reference Range
ABO Group	A				A,B, AB, O
Rh Typing	Positive				Pos or Neg
Direct Antiglobulin Test	Negative				Negative

Serum bilirubin		13.3		mg/dl	High risk. See reference range at www.bilitool.org

Suggested Facilitator Question

- Interpret the meaning of the newborn lab results.

CURRENT MEDICATION LIST

Medication [ ] Notes [ ] Submit

Current Medication	DailyMed Link	Notes	Edit

Facilitator Note: This is an enterable form for students to use to enter medication information. QR codes for various medications are provided above to simulate medication bottles. By typing the first few letters in the box labelled "Medication," a list of possible medications and dosages appear for the student to tap to select. The instructions/prescription for how to take the medication can be entered in the box labelled "Notes," then tap Submit. The medication will appear in the list, with a hyperlink provided to read more about the medication. Students may also tap "Discontinue" to remove the medication from the list.

Students may scan **QR Code: Acetaminophen** drops and enter the information into the medication record

IMMUNIZATIONS

The immunization record is displayed here along with a link to the CDC recommendations for infant vaccinations.

Immunization Record	Date Received
Hepatitis A	never
Hepatitis B	Received at Age: 1 day
Haemophilus influenzae type b4 (Hib)	never
HPV	never
Influenza	never
Measles, mumps, rubellaMMR	never

Pneumococcal	never
IPV – Inactivated Polio	never
Diphtheria, tetanus, & acellular pertussis (DTaP)	never
Varicella Vaccine	never

Suggested Facilitator Questions:

- Are any immunizations recommended at the 2 week well baby visit?

PATIENT EDUCATION

A CDC Handout on Immunizations for Children is provided here. A printable version is available in Appendix B.

EMERGENCY CONTACT INFORMATION

Contact	Contact Information
Parents: John and Sara Bailey	Phone: 555-555-0168 Address: 1305 South Main Street Anytown, WI

SCANNER

Tap this tab to scan QR codes within the scenario

EXIT

The message, "Are you sure you want to exit? All data will be lost? Yes/No" is displayed until the **QR Code: Facilitator** is scanned

STATE 1

PATIENT ASSESSMENT AND IMMUNIZATIONS

- Patient Overview
    - Students may perform newborn assessments incorporating associated QR codes of newborn assessments as well as administer immunizations.
- Expected Student Behaviors
    - Provide appropriate hand hygiene throughout scenario
    - Introduce themselves to the parent(s)
    - Verify patient identity using name and date of birth
    - Perform assessments or discuss simulated assessment videos with associated **QR Codes: Head Circumference, Chest Circumference**
    - Administer the following immunizations: Rotavirus, DTaP, Hib, PCV (Pneumococcal) and IPV (polio).
        - Facilitator Note: A variety of **QR codes** are available:
            - Immunizations: **QR Codes: Rotavirus, DTaP, Hib, PCV (Pneumococcal) and IPV (polio)** can be scanned for students to view actual package labels and discuss what needs to be documented from the labels.
            - **QR codes** are provided for various syringe and needle sizes to discuss what size syringe and needle should be used for these injections in newborns
            - **QR codes Positioning for Injection; Injection Site A and Injection Site B** can be scanned for discussion about proper and improper injection site location and positioning
    - Perform a medication reconciliation
        - Facilitator note: May scan **QR code: Acetaminophen** drops to view a label simulating medication that the parent brought to the visit. Students should enter the correct Acetaminophen dosage in the Medication reconciliation table under the Current Medications List tab.
    - Educate/coach parent about immunizations

        - Facilitator note: A patient education handout is available under the Patient Education tab on Immunizations

- Technician Prompts
    - As role play the father, continue to ask questions about why Noah needs immunizations:
        - "I heard that immunizations can cause autism. Is that true?"
        - "Some of my friends didn't immunize their kids and they're fine."
- Suggested Facilitator Questions
    - What parent education topics should be covered during the 2 week well baby visit?
    - What documentation is required when immunizations are administered?
- Tabbed iPad content and changes:

EXIT

When student has performed expected behaviors, scan the **QR Code: Facilitator**. A message will appear "You have been approved to proceed. You have completed the learning objectives for this scenario and may exit."

Students may then tap on Exit and view the message, "Scenario objectives have been met. Are you sure you want to exit the game? Yes/No."

DEBRIEF

Nothing needed from the iPad.

QUESTIONS

1. How did you feel this scenario went?
2. Review learning objective: Obtain newborn assessment data
    a. What data did you collect for the 2 week well baby checkup?
3. Review learning objective: Perform medication reconciliation
    a. Discuss safe dosage for acetaminophen for infants
4. Review learning objective: Administer immunizations according to CDC recommendations
    a. Outline immunizations recommended for the 2 month well baby checkup
    b. Describe documentation requirements when immunizations are administered
5. Review learning objective: Provide patient education and counseling
    a. Outline parent education topics for the 2 week well baby checkup
6. Summarize/Take Away Points: “In this scenario you assisted with a 2 week well-baby checkup. What is one thing you learned from participating in this scenario that you will take into practice?” (Ask each student to share something unique from what the other students share.)

NOTE: Debriefing technique is based on INASCL Standards for Debriefing and NLN Theory-Based Debriefing by Dreifuerst.

SURVEY

Print this page and provide to students.

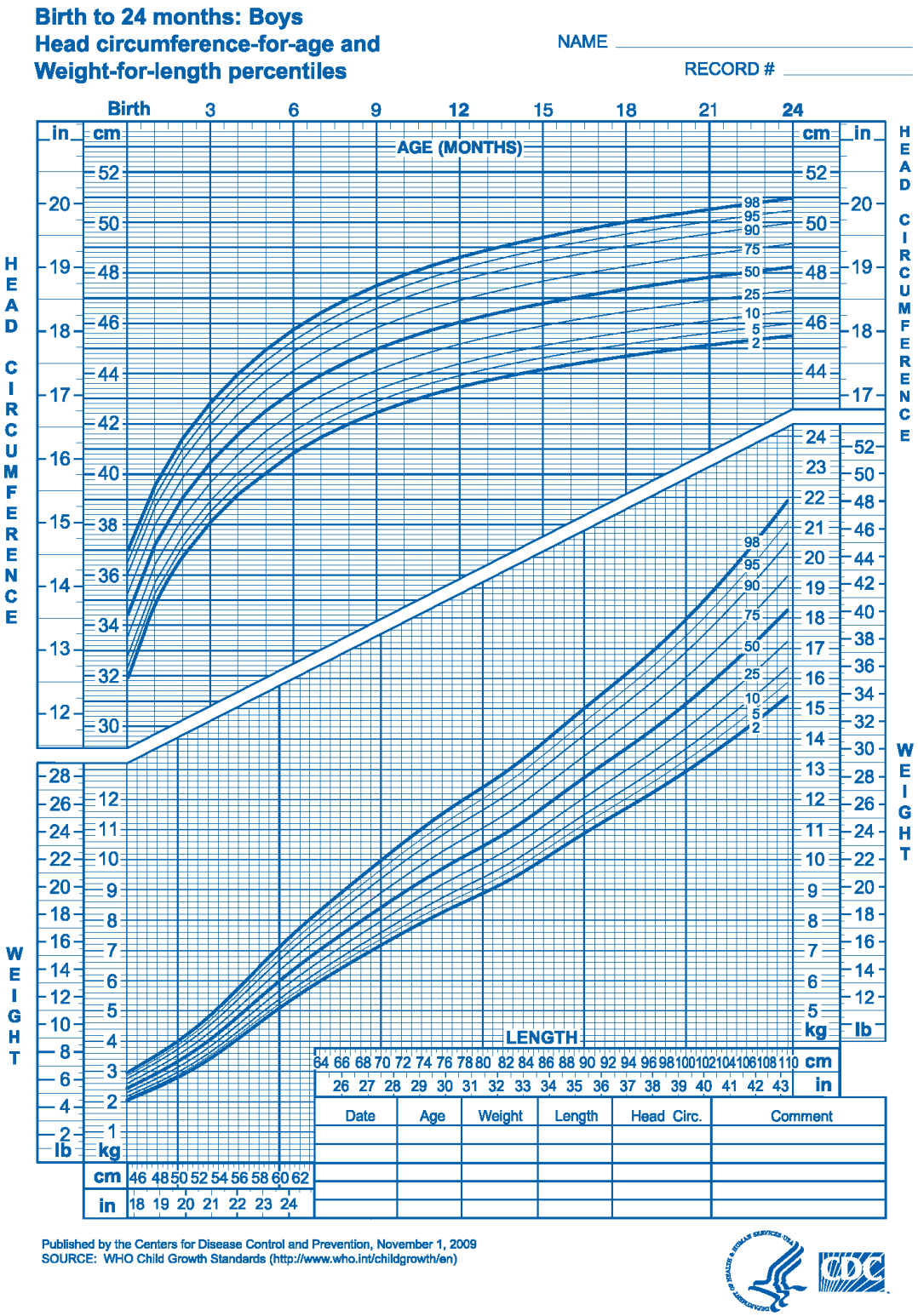
Students, please complete a brief (2-3 minute) survey regarding your experience with this ARISE simulation. There are two options:

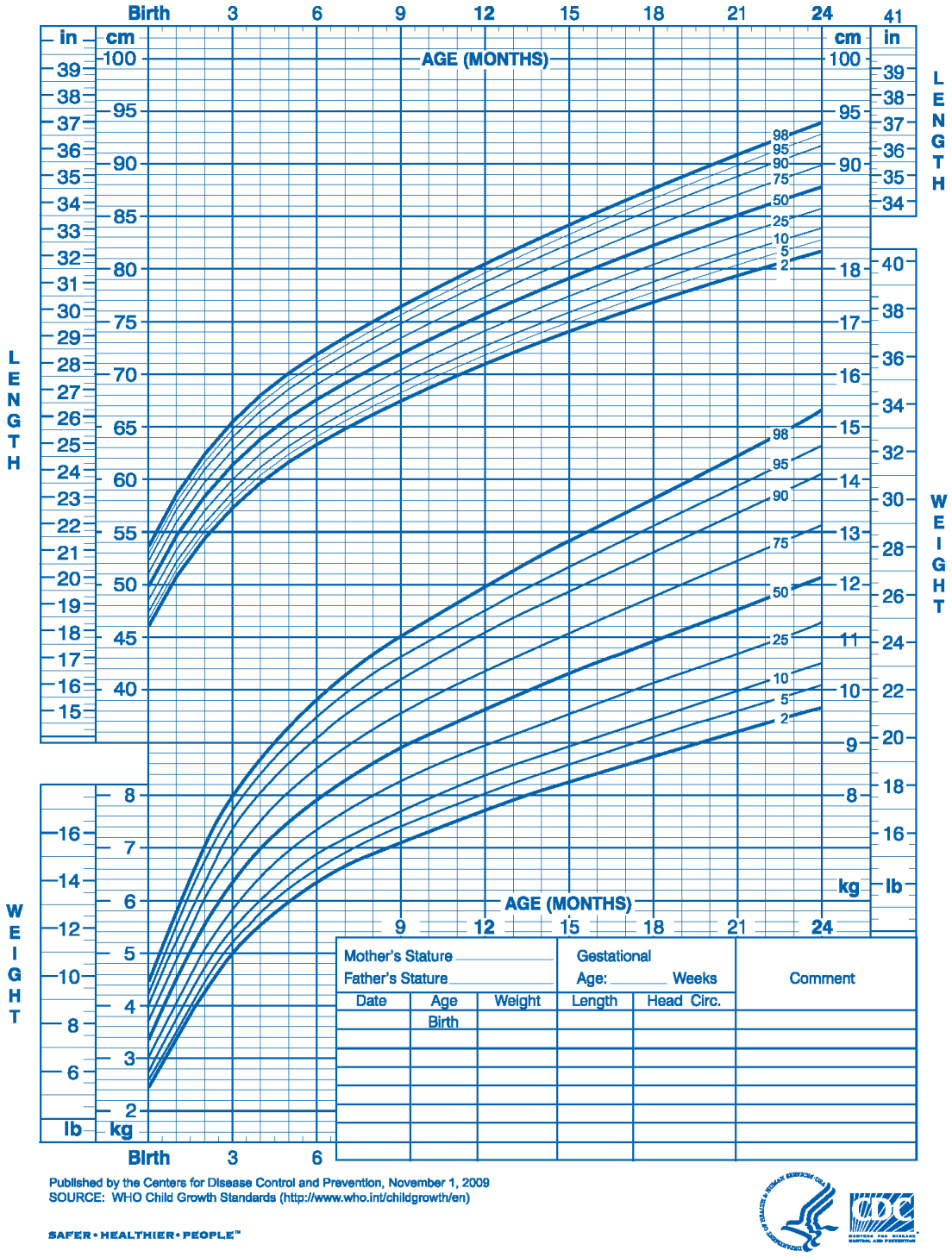
1. Use QR Code: Survey
    a. Note: You will need to download a QR Code reader/scanner onto your own device (smartphone or tablet). There are multiple free scanner apps available for both Android and Apple devices from the app store.
    b. This QR Code will not work in the ARIS app.

SURVEY

2. Copy and paste the following survey link into your browser.
    a. https://ircvtc.co1.qualtrics.com/SE/?SID=SV_6Mwfv98ShBfRnBX

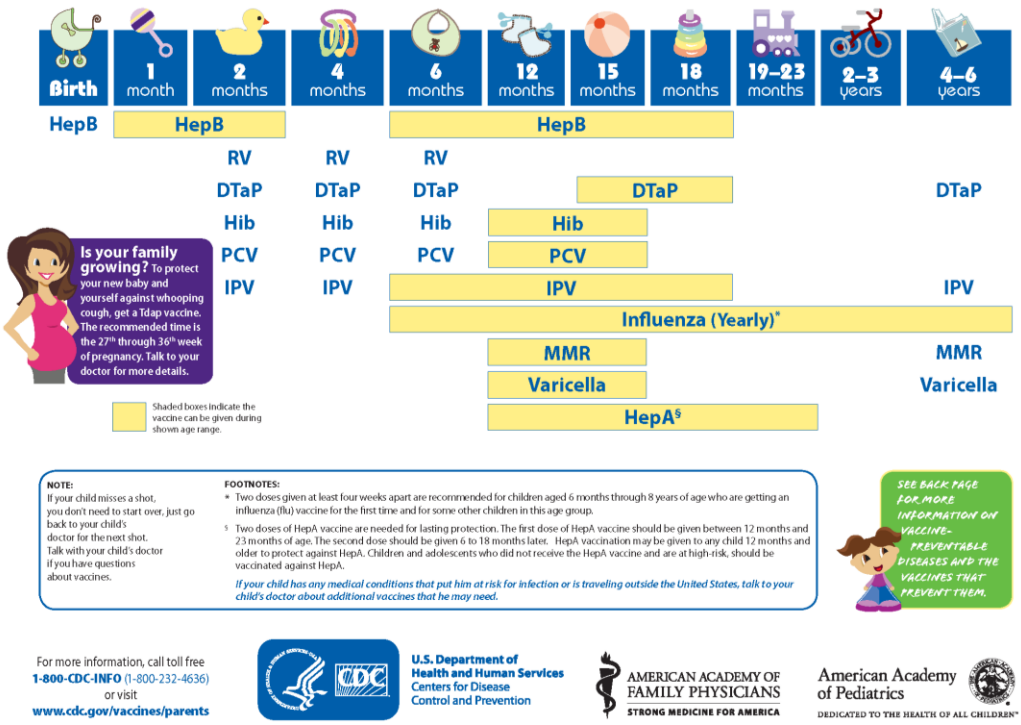
APPENDIX A: GROWTH CHARTS




Birth to 24 months: Boys
Length-for-age and Weight-for-age percentiles
NAME
RECORD #
AGE (MONTHS)
LENGTH
WEIGHT
Mother's Stature
Father's Stature
Gestational Age: Weeks
Comment
Date
Age
Weight
Length
Head Circ.
Birth
Published by the Centers for Disease Control and Prevention, November 1, 2009
SOURCE: WHO Child Growth Standards (http://www.who.int/childgrowth/en)
SAFER • HEALTHIER • PEOPLE™

APPENDIX B: PATIENT EDUCATION HANDOUT

2017 Recommended Immunizations for Children from Birth Through 6 Years Old



NOTE:
If your child misses a shot, you don't need to start over, just go back to your child's doctor for the next shot. Talk with your child's doctor if you have questions about vaccines.

FOOTNOTES:

* Two doses given at least four weeks apart are recommended for children aged 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time and for some other children in this age group.

§ Two doses of HepA vaccine are needed for lasting protection. The first dose of HepA vaccine should be given between 12 months and 23 months of age. The second dose should be given 6 to 18 months later. HepA vaccination may be given to any child 12 months and older to protect against HepA. Children and adolescents who did not receive the HepA vaccine and are at high-risk, should be vaccinated against HepA.

If your child has any medical conditions that put him at risk for infection or is traveling outside the United States, talk to your child's doctor about additional vaccines that he may need.

For more information, call toll free
1-800-CDC-INFO (1-800-232-4636)
or visit
www.cdc.gov/vaccines/parents

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

AMERICAN ACADEMY OF FAMILY PHYSICIANS
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Vaccine-Preventable Diseases and the Vaccines that Prevent Them

Disease	Vaccine	Disease spread by	Disease symptoms	Disease complications
Chickenpox	**Varicella vaccine** protects against chickenpox.	Air, direct contact	Rash, tiredness, headache, fever	Infected blisters, bleeding disorders, encephalitis (brain swelling), pneumonia (infection in the lungs)
Diphtheria	**DTaP*** vaccine protects against diphtheria.	Air, direct contact	Sore throat, mild fever, weakness, swollen glands in neck	Swelling of the heart muscle, heart failure, coma, paralysis, death
Hib	**Hib** vaccine protects against *Haemophilus influenzae* type b.	Air, direct contact	May be no symptoms unless bacteria enter the blood	Meningitis (infection of the covering around the brain and spinal cord), intellectual disability, epiglottitis (life-threatening infection that can block the windpipe and lead to serious breathing problems), pneumonia (infection in the lungs), death
Hepatitis A	**HepA** vaccine protects against hepatitis A.	Direct contact, contaminated food or water	May be no symptoms, fever, stomach pain, loss of appetite, fatigue, vomiting, jaundice (yellowing of skin and eyes), dark urine	Liver failure, arthralgia (joint pain), kidney, pancreatic, and blood disorders
Hepatitis B	**HepB** vaccine protects against hepatitis B.	Contact with blood or body fluids	May be no symptoms, fever, headache, weakness, vomiting, jaundice (yellowing of skin and eyes), joint pain	Chronic liver infection, liver failure, liver cancer
Influenza (Flu)	**Flu vaccine** protects against influenza.	Air, direct contact	Fever, muscle pain, sore throat, cough, extreme fatigue	Pneumonia (infection in the lungs)
Measles	**MMR**** vaccine protects against measles.	Air, direct contact	Rash, fever, cough, runny nose, pinkeye	Encephalitis (brain swelling), pneumonia (infection in the lungs), death
Mumps	**MMR****vaccine protects against mumps.	Air, direct contact	Swollen salivary glands (under the jaw), fever, headache, tiredness, muscle pain	Meningitis (infection of the covering around the brain and spinal cord) , encephalitis (brain swelling), inflammation of testicles or ovaries, deafness
Pertussis	**DTaP*** vaccine protects against pertussis (whooping cough).	Air, direct contact	Severe cough, runny nose, apnea (a pause in breathing in infants)	Pneumonia (infection in the lungs), death
Polio	**IPV** vaccine protects against polio.	Air, direct contact, through the mouth	May be no symptoms, sore throat, fever, nausea, headache	Paralysis, death
Pneumococcal	**PCV** vaccine protects against pneumococcus.	Air, direct contact	May be no symptoms, pneumonia (infection in the lungs)	Bacteremia (blood infection), meningitis (infection of the covering around the brain and spinal cord), death
Rotavirus	**RV** vaccine protects against rotavirus.	Through the mouth	Diarrhea, fever, vomiting	Severe diarrhea, dehydration
Rubella	**MMR**** vaccine protects against rubella.	Air, direct contact	Children infected with rubella virus sometimes have a rash, fever, swollen lymph nodes	Very serious in pregnant women—can lead to miscarriage, stillbirth, premature delivery, birth defects
Tetanus	**DTaP*** vaccine protects against tetanus.	Exposure through cuts in skin	Stiffness in neck and abdominal muscles, difficulty swallowing, muscle spasms, fever	Broken bones, breathing difficulty, death

* DTaP combines protection against diphtheria, tetanus, and pertussis.
** MMR combines protection against measles, mumps, and rubella.

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CREDITS

BiliTool available at http:/www.bilitool.org

Centers for Disease Control and Prevention (2016). Recommended Immunization Schedule for Children from Birth through 6 Years Old. Downloaded from: https://www.cdc.gov/vaccines/parents/downloads/parent-ver-sch-0-6yrs.pdf

Medication information from National Library of Medicine: Daily Med at http://dailymed.nlm.nih.gov/dailymed/

Merkel, S., Voepel-Lewis, T., Shayevitz, J., Malveya, S. (1997), The FLACC Scale: A Behavioral Scale for Scoring Post-Operative Pain in Young Children. Pediatric Nursing, 23(3): 293-297.

Pictures in Patient Education handouts from www.wikihow.com

REFERENCES

Dreifuerst, Kristina Thomas (2012). Using debriefing for meaningful learning to foster development of clinical reasoning in simulation. Journal of Nursing Education, 51(6), 326-333. doi:http://dx.doi.org/10.3928/01484834-20120409-02

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