PREVENTIVE HEALTH CARE GUIDELINES

These guidelines are based on the recommendations by the United States Preventive Services Task Force (USPSTF), the Centers for Disease Control and Prevention (CDC), the American Academy of Family Practitioners (AAFP), and the American Academy of Pediatrics (AAP)/Bright Futures.





Introduction

Health Plan of Nevada and Sierra Health and Life suggest that health plan members get certain screening tests, exams and shots to stay healthy. This document gives our health plan members and doctors in the health plan's network guidelines about when and how often to get preventive care. This advice is not designed to take the place of your doctor's judgement about your own health care needs.

Please talk with your doctor about any questions or concerns. Your doctor may make changes to these guidelines based on your own needs. Please refer to your health plan's Evidence of Coverage and plan documents for details about the coverage and costs to you for these preventive services.

Section 1: General Preventive Screening Tests and Exams for Children, Teens and Adults

	Ge	nder		Newborns, Children	Comments About Screening Test,	
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot	
Abdominal Aortic Aneurysm Screening Test	X	N/A	Х	Adults only	This screening test is a one-time test for men between the ages of 65-75 years old who have smoked even if there are no symptoms.	
Alcohol Abuse: Screening and Behavioral Counseling Intervention in Primary Care to Reduce Unhealthy Alcohol Use in Adults	Х	х	Х	Adults only	Screening for adults aged 18 years or older for alcohol misuse and provide persons engaged in risky or hazardous drinking with brief behavioral counseling to reduce alcohol misuse.	
					A formal, standardized developmental screen is recommended during the 9 month and 30-month visit.	
Autism Screening	х	х	N/A	/A X	A formal, standardized developmental screen is recommended during the 18-month visit, including formal autism screen.	
					A formal, standardized autism screen is recommended during the 24-month visit.	
Bacteriuria Screening	N/A	Х	Х	Adults only	Screening for asymptomatic bacteriuria with urine culture for pregnant women at 12-16 weeks gestation or at the first prenatal visit, if later.	
Breast Cancer Screening - Mammogram	N/A	х	х	Adults only	Screening is recommended every 2 years for women who are 50-74 years old and are at average risk for breast cancer. Women who are 40 to 49 years old should talk to their doctor about when to start and how often to get a mammogram.	
Breast Genetic Counseling and Evaluation for BRCA Testing	N/A	X	Х	Adults only	This screening is for women who have a family member with breast, ovarian, tubal, or peritoneal cancer with one of several screening tools designed to identify a family history that may be associated with an increased risk for potentially harmful mutations in breast cancer susceptibility genes (BRCA1 or BRCA2). Women with positive screening results should receive genetic counseling and, if indicated after counseling, BRCA testing.	

Gender			Newborns, Children	Comments About Screening Test,	
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot
Breast Cancer - Chemoprevention	N/A	Х	Х	Adults only	USPSTF recommends that clinicians offer to prescribe risk-reducing medications to women who are at increased risk for breast cancer and at low risk for adverse medication effects.
Behavioral Counseling in Primary Care to Promote a Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults with Risk Factors	X	X	X	Adults only	The USPSTF recommends offering or referring adults with cardiovascular disease risk factors to behavioral counseling interventions to promote a healthy diet and physical activity.
Cervical Cancer Screening - Pap Smear	N/A	X	X	Adults only	A cervical cancer screening is recommended for average risk women aged 21-65 years. For women aged 21-29 years, a cervical cancer screening using cervical cytology (Pap smear) is recommended every 3 years. Women aged 30-65 years should be screened with cytology and human papillomavirus testing every 5 years or cervical cytology alone every 3 years.
Chlamydia Infection Screening	$\frac{1}{2}$		X	This screening test is for all sexually active non-pregnant women aged 24 years and younger and older women at increased risk for infection. This applies to all sexually active adolescents and adult women, including pregnant women. Bright Futures recommends sexually transmitted infection screening be conducted if risk assessment is positive between ages 11-21 years.	
Cholesterol Screening - Lipid Disorders Screening	X	X	X	Adults only	The USPSTF recommends that this screening test is for all adults without a history of cardiovascular disease (CVD) (i.e. symptomatic coronary artery disease or ischemic stroke) use a low to moderate dose statin for the prevention of CVD events and mortality when all of the following criteria are met: 1. They are aged 40-75 years; 2. They have 1 or more CVD risk factors (i.e. dyslipidemia, diabetes, hypertension or smoking); 3. They have a calculated 10 year risk of a cardiovascular event of 10% or greater.

	Ge	nder		Newborns, Children	Comments About Screening Test,
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot
					Identification of dyslipidemia and calculation of 10-year CVD event risk requires universal lipids screening in adults aged 40-75 years. See Dyslipidemia Screening (Pediatric) for
					recommendations for children.
Colorectal Cancer Screening: Fecal Occult Blood Test (FOBT), Fecal ImmunochemicalTest (FIT), Sigmoidoscopy and Colonoscopy	X	Х	x	Adults only	USPSTF recommends screening starting at age 45 years and continuing until age 75 years.
Contraceptive Methods (Including Sterilizations)	N/A	X	X	X	Adolescent and adult women have access to the full range of female-controlled contraceptives to prevent unintended pregnancy and improve birth outcomes. Contraceptive care should include contraceptive counseling, initiation of contraception use and follow-up care (e.g. management and evaluation as well as change of and removal or discontinuation of contraceptive method). The Women's Preventive Services Initiative recommends that the full range of U.S. Food and Drug Administration (FDA) approved contraceptive methods, effective family planning practices and sterilization procedures be available as part of contraceptive care. Additionally, instruction in fertility awareness-based methods, including the lactation amenorrhea method, although less effective, should be provided for women desiring an alternative method.
Depression in Adults - Screening	X	Х	X	Adults only	This screening is for the general adult population including pregnant and postpartum women. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up.

14	Ge	nder	A alcolta	Newborns, Children	Comments About Screening Test,
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot
Depression in Children and Adolescents - Screening	X	Х	N/A	X	This screening is for adolescents between the ages of 12-18 years for major depressive disorder (MDD). Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up. Bright Futures Periodicity Schedule recommends depression screening begins
					at age 12. The USPSTF recommends screening for
Diabetes Screening	х	х	X	Adults only	prediabetes and type 2 diabetes in adults aged 35 to 70 years who have overweight or obesity. Clinicians should offer or refer patients with prediabetes to effective preventive interventions.
					USPSTF recommends screening for gestational diabetes mellitus in asymptomatic pregnant women after 24 weeks of gestation.
Dyslipidemia Screening - Pediatric	Х	Х	N/A	Х	For children and adolescents 20 years or younger: The USPSTF found that the current evidence is insufficient to assess the balance of benefits and harms of screening for lipid disorders.
Fluoride Application in Primary Care	x	X	N/A	X	Recommended for children from birth through age 5 years. It is recommended that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption.
	, and the second				For high-risk children, consider application of fluoride varnish for caries prevention every 3-6 months between ages 6 months to 5 years.
Gonorrhea Screening	N/A	X	x	X	USPSTF recommends screening for gonorrhea in sexually active women aged 24 years and younger and in older women who are at increased risk for infection.
Conormed Screening	IV/A	۸	X	Х	Bright Futures recommends sexually transmitted infection screening be conducted if risk assessment is positive between ages 11-21 years.

	Ge			Newborns, Children	Comments About Screening Test,	
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot	
Hearing Screening - Pediatric	X	X	N/A	X	Bright Futures recommends hearing screening at ages: newborn between 3-5 days old to 2 months old, 4 years, 5 years, 6 years, 8 years, 10 years, once between ages 11-14 years, once between ages 15-17 years and once between ages 18-21 years. Screening is also recommended for those that have a positive risk assessment. Risk assessment is recommended at ages 4 months, 6 months, 9 months, 12 months, 15 months, 18 months, 24 months, 30 months, 3 years, 7 years, and 9 years of age.	
Hepatitis B Virus Infection Screening	Х	Х	Х	Adults only	USPSTF recommends screening for hepatitis B infection in persons at high risk for infection and pregnant women at their first prenatal visit.	
Hepatitis C Virus Infection Screening	х	Х	х	Adults only	The USPSTF recommends screening for hepatitis C virus (HCV) infection in adults aged 18 to 79 years.	
High Blood Pressure in Adults – Screening	х	х	х	Adults only	This screening test is for adults aged 18 years of age or older. The USPSTF recommends obtaining measurements outside of the clinical setting for diagnostic confirmation before starting treatment.	
Human Immunodeficiency Virus (HIV) – Screeningfor Adolescents and Adults	X	X	X	X	This screening is for HIV infection in adolescents and adults aged 15-65 years. Younger adolescents and older adults who are at increased risk should also be screened. This screening is also for pregnant women, including those who present in labor who are untested and whose HIV status is unknown. Bright Futures recommends HIV screening lab work be conducted once between ages 15-18 years. It is also recommended anytime between ages 11-14 years and 19-21 years when a risk assessment is positive.	
Human Papillomavirus DNA Testing	N/A	Х	х	Adults only	This screening test is recommended every 5 years for women who are 30 years or older who have normal pap smear results.	
Hypothyroidism Screening – Newborn	х	Х	N/A	Х	This screening test is for all newborninfants from birth to 90 days old.	

	Ge	nder	A.I. II.	Newborns, Children	Comments About Screening Test,	
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot	
Intimate Partner Violence Screening	N/A	Х	X	X	The USPSTF recommends that clinicians screen for intimate partner violence in women of reproductive age and provider orrefer women who screen positive to ongoing support services.	
Latent Tuberculosis Infection (LTBI) Screening	X	Х	х	Adults only	The USPSTF recommends screening for LBTI in populations at increased risk. This recommendation applies to asymptomatic adults 18 years and older.	
Obesity Screening – Adults	X	Х	X	Adults only	This screening is for all adults. Clinicians should offer or refer patients with a body mass index (BMI) of 30kg/m ² or higher to intensive, multicomponent behavioral interventions.	
Obesity Screening –					This screening is recommended for children and adolescents 6 years and older.	
Children and Adolescents	X	Х	N/A	X	Clinicians should offer or refer to a comprehensive, intensive behavioral intervention to promote improvements in weight status.	
Osteoporosis Screening	N/A	Х	Х	Adults only	This screening is for women aged 65 and older and in postmenopausal women younger than 65 years who are at increased risk of osteoporosis.	
Other Tests and Exams for Children from Birth to 21 Years	X	Х	N/A	X	Other tests and exams for children and teens from birth to 21 years may be considered preventive. These tests and exams are covered according to individual benefit plans. Please refer to your health plan documents to determine you and your family's specific coverage.	
Phenylketonuria (PKU) Screening	х	Х	N/A	Х	This screening test is for all newborninfants from birth to 90 days old.	
Primary Care Interventions to Prevent Tobacco Use inAdults and Children	х	х	Х	X	The USPSTF recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and U.S. Food and Drug Administration (FDA) approved pharmacotherapy for cessation to those who use tobacco.	
and Cillidien					USPSTF recommends that primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco use among schoolaged children and adolescents.	

x	X	Newborns, Children and/or Teens X	Comments About Screening Test, Counseling, Exam or Shot Bright Futures recommends tobacco use assessments from age 11-21 years. Rh(D) blood typing and antibody testing is recommended for all pregnant women during their first visit for pregnancy-related care. Repeated Rh(D) antibody testing for all unsensitized Rh(D) negative women at 24-28 weeks gestation, unless biological		
x	Х	X	assessments from age 11-21 years. Rh(D) blood typing and antibody testing is recommended for all pregnant women during their first visit for pregnancy-related care. Repeated Rh(D) antibody testing for all unsensitized Rh(D) negative women at 24-28 weeks gestation, unless biological		
x	Х	Х	recommended for all pregnant women during their first visit for pregnancy-related care. Repeated Rh(D) antibody testing for all unsensitized Rh(D) negative women at 24-28 weeks gestation, unless biological		
			father is known to be Rh(D) negative.		
х	X Adults only t		Iung cancer tomography who have a and current! X Adults only thepast 15 y discontinues smoked for problem that expectancy		USPSTF recommends annual screening for lung cancer with low-dose computer tomography for adults aged 50-80 years who have a 20 pack-year smoking history and currently smoke or have quit within thepast 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.
х	х		adolescents and for adu		Behavioral counseling for all sexually active adolescents and for adults who are at increased risk for sexually transmitted infections (STI).
х	IN/A I X I		This screening test is for all newborninfants from birth to 90 days old.		
X	х	X	USPSTF recommends counseling young adults, adolescents, children, and parents ofyoung children about minimizing exposure to ultraviolet (UV) radiation for persons ages 6 months to 24 years with fair skin types to reduce their risk of skin cancer.		
x x x x		X	USPSTF recommends screening for syphilis infection in persons who are at increased risk for infection (asymptomatic, non-pregnant adults and adolescents who are at increased risk for syphilis infection). USPSTF recommends that clinicians screen all pregnant women for syphilis infection. Bright Futures recommends sexually transmitted infection screening be conducted if risk assessment is positive		
	x				

lkom.	Ge	nder	ماريات	Newborns, Children	Comments About Screening Test,
Item	Male	Female	Adults	and/or Teens	Counseling, Exam or Shot
					USPSTF recommends vision screening at least once in all children aged 3-5 years to detect amblyopia or its risk factors.
Screening for Visual Impairment in Children	х	X	N/A	X	Bright Futures recommends instrument- based screening for children ages 1-5 years if the screening is available and ages 6 years and older if unable to test visual acuity monocularly with age appropriate optotypes.
Wellness Examinations (Well Baby, Well Child and Well Adult)	X	X	X	X	Wellness exams include an initial preventive medicine evaluation and management of an individual. This exam includes an age and gender appropriate history, exam, counseling/anticipatory guidance/risk factor reduction strategies and the ordering of laboratory and diagnostic procedures. These include breastfeeding support and counseling and follow-up care, domestic violence screening, annual HIV counseling, well woman visits and screening for urinary incontinence.

Section 2: Preventive Screening Tests and Exams for Pregnant Women

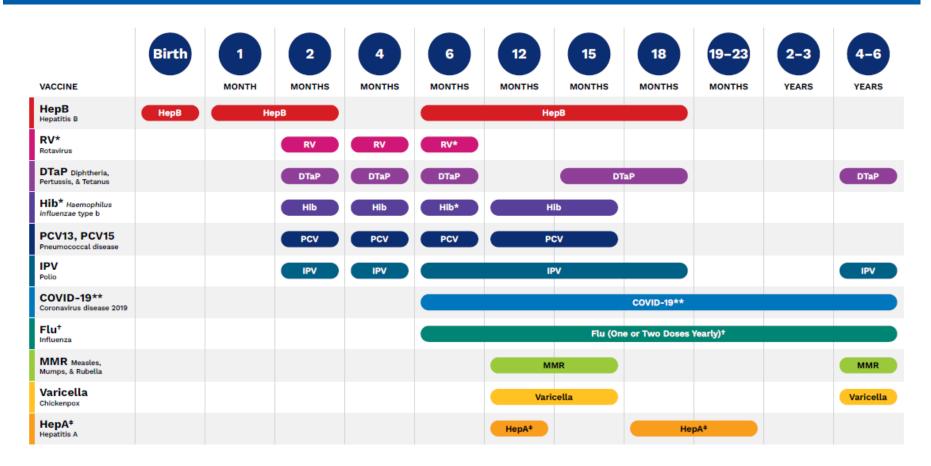
Screening	Comments
	Screening for asymptomatic bacteriuria with urine culture for
Bacteriuria Screening	pregnancy women at 12-16 weeks gestation or at the first
	prenatal visit, if later.
	Screening test is for all sexually active women, including pregnant
Chlamydia Screening	women, 24 years of age or younger and in older women who are
	at increased risk for infection.
Gestational Diabetes Screening	Screening pregnant women for gestational diabetes mellitus after
0	24 weeks of gestation.
	Screening test is for all sexually active women, including pregnant
Gonorrhea Screening	women, 24 years of age or younger and in older women who are at increased risk of infection.
Hanatitic P. Virus Infaction Screening	Screening for hepatitis B virus infection in pregnant women at
Hepatitis B Virus Infection Screening	their first prenatal visit.
	This screening is for all adults and adolescents at risk for HIV. This
Human Immunodeficiency Virus (HIV) Infection	also applies to pregnant women including those present in labor
Screening	or at delivery who are untested and whose HIV status is
	unknown.
	The USPSTF recommends screening for preeclampsia in pregnant
Preeclampsia Screening	women with blood pressure measurements throughout
	pregnancy.
	This screening test is for all pregnant women during their first
Rh(D) Incompatibility Screening	prenatal visit. Repeat testing is for all unsensitized Rh(D) negative
	women at 24-48 weeks gestation, unless the biological father is
	known to be Rh(D) negative. The USPSTF recommends early screening for syphilis infection in
Syphilis Screening	all pregnant women.
Tobacco Smoking Cessation in Adults Including	The USPSTF recommends that clinicians ask all pregnant women
Pregnant Women: Behavioral and	about tobacco use and advise them to stop using tobacco and
Pharmacotherapy Interventions	provide behavioral interventions for cessation.
	Well woman preventive care visit annually for adult women to
Wellness Visits (Preconception, Prenatal &	obtain the recommended preventive services that are age and
Postpartum)	developmentally appropriate, including preconception and
	prenatal care.

Section 3: Immunizations/Shots for Adults, Children and Teens

Please refer to the most current immunization (shot) recommendations to find out which immunizations are right for you and your family. These recommendations are revised each year by the Centers by Disease Control and Prevention (CDC).

For more information, please visit the CDC website at: www.cdc.gov

2023 Recommended Immunizations for Children from Birth Through 6 Years Old



FOOTNOTES



Administering a third dose at age 6 months depends on the brand of Hib or rotavirus vaccine used for previous dose. COVID-19** Number of doses recommended depends on your child's age and type of COVID-19 vaccine used.

Two doses given at least 4 weeks apart are recommended for children age 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.

HepA[‡] Two doses of Hep A vaccine are needed for lasting protection. The 2 doses should be given between age 12 and 23 months. Both doses should be separated by at least 6 months. Children 2 years and older who have not received 2 doses of Hep A should complete the series.

ADDITIONAL INFORMATION

 If your child misses a shot recommended for their age, talk to your child's doctor as soon as possible to see when the missed shot can be given. If your child has any medical conditions that put them at risk for infection (e.g., sickle cell, HIV infection, cochlear implants) or is traveling outside the United States, talk to your child's doctor about additional vaccines that they may need. Talk with your child's doctor if you have questions about any shot recommended for your child.



FOR MORE INFORMATION

Call toll-free: 1-800-CDC-INFO (1-800-232-4636)

Or visit: cdc.gov/vaccines/parents





Diseases and the Vaccines that Prevent Them

BIRTH-6 YEARS OLD

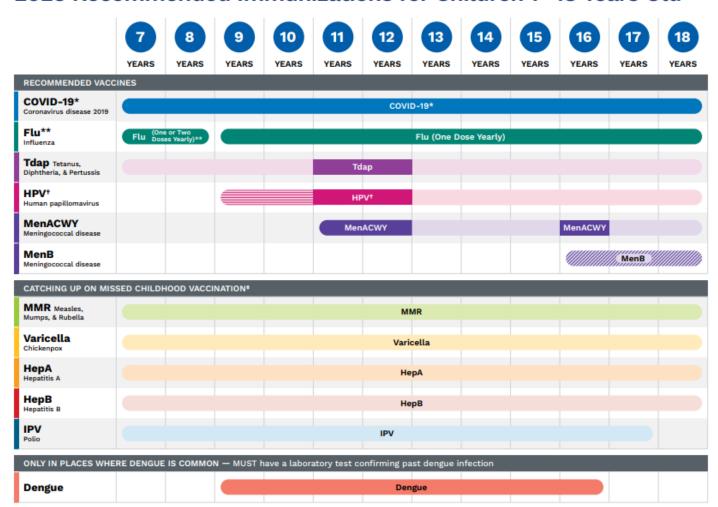
DISEASE	VACCINE	DISEASE SPREAD BY	DISEASE SYMPTOMS	DISEASE COMPLICATIONS
Hepatitis B	HepB vaccine protects against hepatitis B.	Contact with blood or body fluids	May be no symptoms, fever, headache, weakness, vomiting, jaundice (yellowing of skin and eyes), joint pain	Chronic liver infection, liver failure, liver cancer, death
Rotavirus	RV vaccine protects against rotavirus.	Through the mouth	Diarrhea, fever, vomiting	Severe diarrhea, dehydration, death
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
Pertussis (whooping cough)	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
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
Haemophilus influenzae type b (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
Pneumococcal disease (PCV13, PCV15)	PCV vaccine protects against pneumococcal disease.	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
Polio	IPV vaccine protects against polio.	Air, direct contact, through the mouth	May be no symptoms, sore throat, fever, nausea, headache	Paralysis, death
Coronavirus disease 2019 (COVID-19)	covid-19 vaccine protects against severe complications from coronavirus disease 2019.	Air, direct contact	May be no symptoms, fever, muscle aches, sore throat, cough, runny nose, diarrhea, vomiting, new loss of taste or smell	Pneumonia (infection in the lungs), respiratory failure, blood clots, bleeding disorder, injury to liver, heart or kidney, multisystem inflammatory syndrome, post-COVID syndrome, death
Influenza (Flu)	Flu vaccine protects against influenza.	Air, direct contact	Fever, muscle pain, sore throat, cough, extreme fatigue	Pneumonia (infection in the lungs), bronchitis, sinus infections, ear infections, death
Measles	MMR** vaccine protects against measles.	Air, direct contact	Rash, fever, cough, runny nose, pink eye	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, death
Rubella	MMR** vaccine protects against rubella.	Air, direct contact	Sometimes rash, fever, swollen lymph nodes	Very serious in pregnant women—can lead to miscarriage, stillbirth, premature delivery, birth defects
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), 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, death

DTaP* DTaP combines protection against diphtheria, tetanus, and pertussis.

MMR** MMR combines protection against measles, mumps, and rubella.

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2023 Recommended Immunizations for Children 7-18 Years Old



KEY



Indicates when the vaccine is recommended for all children unless your doctor tells you that your child cannot safely receive the vaccine



Indicates the vaccine series can begin at this age.



Indicates the vaccine should be given if a child is catching up on missed vaccines. A vaccine series does not need to be restarted. regardless of the time that has elapsed between doses.



Indicates children not at increased risk may get the vaccine if they wish after speaking to a provider.

ADDITIONAL INFORMATION

- 1. If your child misses a shot recommended for their age, talk to your child's doctor as soon as possible to see when the missed shot can be given.
- 2. If your child has any medical conditions that put them at risk for infection or is traveling outside the United States, talk to your child's doctor about additional vaccines that they may need.

Talk with your child's doctor if you have questions about any shot recommended for your child.

FOOTNOTES

Number COVID-19* of doses recommended depends on your child's age and type of COVID-19 vaccine used.

Two doses given at least 4 weeks apart are recommended for children age 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.

Ages 11 through 12 years old should get a 2-shot series separated by 6 to 12 months. The series can begin at 9 years old. A 3-shot series is recommended for those with weakened immune systems and those who start the series after their 15th birthday.

*Originally recommended age ranges for missed childhood vaccinations: 2-dose series of MMR at 12-15 months and 4-6 years; 2-dose series of Varicella at 12-15 months and 4-6 years; 2-dose series of HepA (minimum interval: 6 months) at age 12-23 months; 3-dose series of HepB at birth, 1-2 months, and 6-18 months; and 4-dose series of Polio at 2 months, 4 months, 6-18 months, and 4-6 years.



FOR MORE INFORMATION

Call toll-free: 1-800-CDC-INFO (1-800-232-4636) Or visit: cdc.gov/vaccines/parents





Diseases and the Vaccines that Prevent Them



DISEASE	VACCINE	DISEASE SPREAD BY	DISEASE SYMPTOMS	DISEASE COMPLICATIONS
Coronavirus disease 2019 (COVID 19)	covid-19 vaccine protects against severe complications from coronavirus disease 2019.	Air, direct contact	May be no symptoms, fever, muscle aches, sore throat, cough, runny nose, diarrhea, vomiting, new loss of taste or smell	Pneumonia (infection in the lungs), respiratory failure, blood clots, bleeding disorder, injury to liver, heart or kidney, multi- system inflammatory syndrome, post-COVID syndrome, death
Influenza (Flu)	Flu vaccine protects against influenza	. Air, direct contact	Fever, muscle pain, sore throat, cough, extreme fatigue	Pneumonia (infection in the lungs), bronchitis, sinus infections, ear infections, death
Tetanus	Tdap* and Td** vaccines protect against tetanus.	Exposure through cuts in skin	Stiffness in neck and abdominal muscles, difficulty swallowing, muscle spasms, fever	Broken bones, breathing difficulty, death
Diphtheria	Tdap* and Td** vaccines protects agains diphtheria.	Air, direct contact	Sore throat, mild fever, weakness, swollen glands in neck	Swelling of the heart muscle, heart failure, coma, paralysis, death
Pertussis (whooping cough)	Tdap* 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
Human papillomavirus	HPV vaccine protects against human papillomavirus.	Direct skin contact	May be no symptoms, genital warts	Cervical, vaginal, vulvar, penile, anal, oropharyngeal cancers
Meningococcal disease	MenACWY MenB vaccines protect again meningococcal disease		Sudden onset of fever, headache, and stiff neck, dark purple rash	Loss of limb, deafness, nervous system disorders, developmental disabilities, seizure disorder, stroke, death
Measles	MMR ⁺ vaccine protects against measles.	Air, direct contact	Rash, fever, cough, runny nose, pink eye	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, death
Rubella	MMR† vaccine protects against rubella.	Air, direct contact	Sometimes rash, fever, swollen lymph nodes	Very serious in pregnant women—can lead to miscarriage, stillbirth, premature delivery, birth defects
Chickenpox	Varicella vaccine protects against chickenpe	ox. Air, direct contact	Rash, tiredness, headache, fever	Infected blisters, bleeding disorders, encephalitis (brain swelling), pneumonia (infection in the lungs), death
Hepatitis A	HepA vaccine protects against hepatitis	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, death
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, death
Polio	IPV vaccine protects against polio.	Air, direct contact, through the mouth	May be no symptoms, sore throat, fever, nausea, headache	Paralysis, death
Dengue	Dengue* vaccine protects against dengue.	Bite from infected mosquito	May be no symptoms, fever, headache, pain behind the eyes, rash, joint pain, body ache, nausea, loss of appetite, feeling tired, abdominal pain	Severe bleeding, seizures, shock, damage to the liver, heart, and lungs, death

Table 1 COVID-19 vaccination recommendations have changed. Find the latest recommendations at www.cdc.gov/covidschedule Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2023

