# American Academy of Pediatrics DEDICATED TO THE HEALTH OF ALL CHILDREN®



# **Recommendations for Preventive Pediatric Health Care**

Bright Futures/American Academy of Pediatrics

Each child and family is unique: therefore, these Recommendations for Preventive Pediatric Health Care are designed for the care of children who are receiving nurturing parenting, have no manifestations of any important health problems, and are growing and developing in a satisfactory fashion. Developmental, psychosocial, and chronic disease issues for children and adolescents may require more frequent counseling and treatment visits separate from preventive care visits. Additional visits also may become necessary if circumstances suggest concerns.

These recommendations represent a consensus by the American Academy of Pediatrics (AAP) and Bright Futures. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to avoid fragmentation of care.

Refer to the specific guidance by age as listed in the Bright Futures Guidelines (Hagan JF, Shaw JS, Duncan PM, eds. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 4th ed. American Academy of Pediatrics; 2017).

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The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

The Bright Futures/American Academy of Pediatrics Recommendations for Preventive Pediatric Health Care are updated annually

	INFANCY								EARLY CHILDHOOD							MIDDLE CHILDHOOD							ADOLESCENCE									
AGE <sup>1</sup>	<b>Prenatal</b> <sup>2</sup>	Newborn <sup>3</sup>			2 mo	4 mo	6 mo	9 mo	12 mo	15 mo	18 mo		1	3 y	4 y	5 y	б у	7 y	8 y	9 y	10 y	11 y	12 y	13 y	14 y	15 y	16 y	17 y	18 y	19 y	20 y	21 y
HISTORY Initial/Interval	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MEASUREMENTS																																
Length/Height and Weight		•	•	•	•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Head Circumference		•	•	•	•	•	•		٠	•	•	•																				
Weight for Length		•	•	•	•	•	•	•	•	•	•																					
Body Mass Index <sup>₅</sup>												•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Blood Pressure <sup>6</sup>		*	*	*	*	*	*	*	*	*	*	*	*	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SENSORY SCREENING		1			1																											
Vision <sup>7</sup>		*	*	*	*	*	*	*	*	*	*	*	*	•	•	٠	•	*	•	*	•	*	•	*	*	•	*	*	*	*	*	*
Hearing		•8	• <sup>9</sup> -			*	*	*	*	*	*	*	*	*		•	•	*	•	*	•	-		• 10		-	<b>— • —</b>	->	-		<b>• • -</b>	->
DEVELOPMENTAL/SOCIAL/BEHAVIORAL/MENTAL HEALTH																																
Maternal Depression Screening <sup>11</sup>				•	•	•	•																									
Developmental Screening <sup>12</sup>					1			•			•		•																			
Autism Spectrum Disorder Screening <sup>13</sup>					1						•	•																				
Developmental Surveillance		•	•	•	•	•	•		•	•		•		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Behavioral/Social/Emotional Screening <sup>14</sup>		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tobacco, Alcohol, or Drug Use Assessment <sup>15</sup>					1																	*	*	*	*	*	*	*	*	*	*	*
Depression and Suicide Risk Screening <sup>16</sup>																							•	•	•	•	•	•	٠	•	•	•
PHYSICAL EXAMINATION <sup>17</sup>		•	•	•	•	•	•	•	٠	•	•	٠	•	•		٠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
PROCEDURES <sup>18</sup>																																
Newborn Blood		•19	● <sup>20</sup> -																													
Newborn Bilirubin <sup>21</sup>		•																														
Critical Congenital Heart Defect <sup>22</sup>		•																														
Immunization <sup>23</sup>		•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•
Anemia <sup>24</sup>						*			٠	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lead <sup>25</sup>							*	*	● or ★ <sup>26</sup>		*	● or ★ <sup>26</sup>		*	*	*	*															
Tuberculosis <sup>27</sup>				*			*		*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dyslipidemia <sup>28</sup>												*			*		*		*	-	-•-	->	*	*	*	*	*	-			-•-	->
Sexually Transmitted Infections <sup>29</sup>																						*	*	*	*	*	*	*	*	*	*	*
HIV <sup>30</sup>																						*	*	*	*	-		•		*	*	*
Hepatitis B Virus Infection <sup>31</sup>		*																														->
Hepatitis C Virus Infection <sup>32</sup>																													•—			->
Sudden Cardiac Arrest/Death <sup>33</sup>																						*										
Cervical Dysplasia <sup>34</sup>																																•
ORAL HEALTH <sup>35</sup>							●36	●36	*		*	*	*	*	*	*	*															
Fluoride Varnish <sup>37</sup>							-				•					->																
Fluoride Supplementation <sup>38</sup>							*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*					
ANTICIPATORY GUIDANCE	•	•	•	•	•		•		٠	•	•	•	•	•		٠	•		•	•	•	•	•	•	•	•	•		•	•	•	

1. If a child comes under care for the first time at any point on the schedule, or if any items are not accomplished at the suggested 5. Screen, per "Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and age, the schedule should be brought up to date at the earliest possible time.

2. A prenatal visit is recommended for parents who are at high risk, for first-time parents, and for those who request a conference. 6. The prenatal visit should include anticipatory guidance, pertinent medical history, and a discussion of benefits of breastfeeding and planned method of feeding, per "The Prenatal Visit" (https://doi.org/10.1542/peds.2018-1218)

3. Newborns should have an evaluation after birth, and breastfeeding should be encouraged (and instruction and support should be offered).

4. Newborns should have an evaluation within 3 to 5 days of birth and within 48 to 72 hours after discharge from the hospital to include evaluation for feeding and jaundice. Breastfeeding newborns should receive formal breastfeeding evaluation, and their mothers should receive encouragement and instruction, as recommended in "Breastfeeding and the Use of Human Milk" (https://doi.org/10.1542/peds.2011-3552). Newborns discharged less than 48 hours after delivery must be examined within 48 hours of discharge, per "Hospital Stay for Healthy Term Newborn Infants" (https://doi.org/10.1542/peds.2015-0699).

Adolescent Overweight and Obesity: Summary Report" (https://doi.org/10.1542/peds.2007-2329C).

Screening should occur per "Clinical Practice Guideline for Screening and Management of High Blood Pressure in Children and Adolescents" (https://doi.org/10.1542/peds.2017-1904). Blood pressure measurement in infants and children with specific risk conditions should be performed at visits before age 3 years.

7. A visual acuity screen is recommended at ages 4 and 5 years, as well as in cooperative 3-year-olds. Instrument-based screening may be used to assess risk at ages 12 and 24 months, in addition to the well visits at 3 through 5 years of age. See "Visual System Assessment in Infants, Children, and Young Adults by Pediatricians" (https://doi.org/10.1542/peds.2015-3596) and "Procedures for the Evaluation of the Visual System by Pediatricians" (https://doi.org/10.1542/peds.2015-3597).

Confirm initial screen was completed, verify results, and follow up, as appropriate. Newborns should be screened, 8 per "Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs" (https://doi.org/10.1542/peds.2007-2333).

9. Verify results as soon as possible, and follow up, as appropriate.

10. Screen with audiometry including 6,000 and 8,000 Hz high frequencies once between 11 and 14 years, once between 15 and 17 years, and once between 18 and 21 years. See "The Sensitivity of Adolescent Hearing Screens Significantly Improves by Adding High Frequencies" (https://www.sciencedirect.com/science/article/abs/pii/S1054139X16000483)

11. Screening should occur per "Incorporating Recognition and Management of Perinatal Depression Into Pediatric Practice" (https://doi.org/10.1542/peds.2018-3259).

(https://doi.org/10.1542/peds.2019-3447).



Screening should occur per "Promoting Optimal Development: Identifying Infants and Young Children With Developmental Disorders Through Developmental Surveillance and Screening" (https://doi.org/10.1542/peds.2019-3449). 13. Screening should occur per "Identification, Evaluation, and Management of Children With Autism Spectrum Disorder

(continued)

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- 14. Screen for behavioral and social-emotional problems per "Promoting Optimal Development: Screening for Behavioral and Emotional Problems (https://doi.org/10.1542/peds.2014-3716), "Mental Health Competencies for Pediatric Practice" (https://doi.org/10.1542/peds.2019-2757), "Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders" (https://pubmed.ncbi.nlm.nih.gov/32439401), and "Screening for Anxiety in Adolescent and Adult Women: A Recommendation From the Women's Preventive Services Initiative" (https://pubmed.ncbi.nlm.nih.gov/32510990). The screening should be family centered and may include asking about caregiver emotional and mental health concerns and social determinants of health, racism, poverty, and relational health. See "Poverty and Child Health in the United States" (https://doi.org/10.1542/peds.2016-0339), "The Impact of Racism on Child and Adolescent Health" (https://doi.org/10.1542/peds.2019-1765), and "Preventing Childhood Toxic Stress: Partnering With Families and Communities to Promote Relational Health" (https://doi.org/10.1542/peds.2021-052582).
- 15. A recommended assessment tool is available at http://crafft.org.
- 16. Screen adolescents for depression and suicide risk, making every effort to preserve confidentiality of the adolescent. See "Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Initial Management" (https://doi.org/10.1542/peds.2017-4081), "Mental Health Competencies for Pediatric Practice" (https://doi.org/10.1542/peds.2019-2757), "Suicide and Suicide Attempts in Adolescents" (https://doi.org/10.1542/peds.2016-1420), and "The 21st Century Cures Act & Adolescent Confidentiality" (https://www.adolescenthealth.org/ Advocacy/Advocacy-Activities/2019-(1)/NASPAG-SAHM-Statement.aspx).
- 17. At each visit, age-appropriate physical examination is essential, with infant totally unclothed and older children undressed and suitably draped. See "Use of Chaperones During the Physical Examination of the Pediatric Patient" (https://doi.org/10.1542/peds.2011-0322).
- 18. These may be modified, depending on entry point into schedule and individual need. 19. Confirm initial screen was accomplished, verify results, and follow up, as
- appropriate. The Recommended Uniform Screening Panel (https://www.hrsa.gov/ advisory-committees/heritable-disorders/rusp/index.html), as determined by The Secretary's Advisory Committee on Heritable Disorders in Newborns and Children, and state newborn screening laws/regulations (https://www.babysfirsttest.org/) establish the criteria for and coverage of newborn screening procedures and programs.
- 20. Verify results as soon as possible, and follow up, as appropriate.
- 21. Confirm initial screening was accomplished, verify results, and follow up, as appropriate. See "Hyperbilirubinemia in the Newborn Infant ≥35 Weeks' Gestation: An Update With Clarifications" (https://doi.org/10.1542/peds.2009-0329).
- 22. Screening for critical congenital heart disease using pulse oximetry should be performed in newborns, after 24 hours of age, before discharge from the hospital, per "Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease" (https://doi.org/10.1542/peds.2011-3211).
- 23. Schedules, per the AAP Committee on Infectious Diseases, are available at https://publications.aap.org/redbook/pages/immunization-schedules. Every visit should be an opportunity to update and complete a child's immunizations.
- 24. Perform risk assessment or screening, as appropriate, per recommendations in the current edition of the AAP Pediatric Nutrition: Policy of the American Academy of Pediatrics (Iron chapter)
- 25. For children at risk of lead exposure, see "Prevention of Childhood Lead Toxicity" (https://doi.org/10.1542/peds.2016-1493) and "Low Level Lead Exposure Harms" Children: A Renewed Call for Primary Prevention" (https://www.cdc.gov/nceh/lead/ docs/final document 030712.pdf).
- 26. Perform risk assessments or screenings as appropriate, based on universal screening requirements for patients with Medicaid or in high prevalence areas.

- 27. Tuberculosis testing per recommendations of the AAP Committee on Infectious Diseases, published in the current edition of the AAP Red Book: Report of the Committee on Infectious Diseases. Testing should be performed on recognition of high-risk factors.
- 28. See "Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents" (http://www.nhlbi.nih.gov/guidelines/cvd\_ped/index.htm).
- 29. Adolescents should be screened for sexually transmitted infections (STIs) per recommendations in the current edition of the AAP Red Book: Report of the Committee on Infectious Diseases.
- 30. Adolescents should be screened for HIV according to the US Preventive Services Task Force (USPSTF) recommendations (https://www.uspreventiveservicestaskforce.org/ uspstf/recommendation/human-immunodeficiency-virus-hiv-infection-screening once between the ages of 15 and 18, making every effort to preserve confidentiality of the adolescent. Those at increased risk of HIV infection, including those who are sexually active, participate in injection drug use, or are being tested for other STIs, should be tested for HIV and reassessed annually.
- 31. Perform a risk assessment for hepatitis B virus (HBV) infection according to recommendations per the USPSTF (https://www.uspreventiveservicestaskforce.org/ uspstf/recommendation/hepatitis-b-virus-infection-screening) and in the 2021–2024 edition of the AAP Red Book: Report of the Committee on Infectious Diseases, making every effort to preserve confidentiality of the patient.
- 32. All individuals should be screened for hepatitis C virus (HCV) infection according to the USPSTF (https://www.uspreventiveservicestaskforce.org/uspstf/ recommendation/hepatitis-c-screening) and Centers for Disease Control and Prevention (CDC) recommendations (https://www.cdc.gov/mmwr/volumes/69/rr/rr6902a1.htm) at least once between the ages of 18 and 79. Those at increased risk of HCV infection, including those who are persons with past or current injection drug use, should be tested for HCV infection and reassessed annually.
- 33. Perform a risk assessment, as appropriate, per "Sudden Death in the Young: Information for the Primary Care Provider" (https://doi.org/10.1542/peds.2021-052044)
- 34. See USPSTF recommendations (https://www.uspreventiveservicestaskforce.org/uspstf/ recommendation/cervical-cancer-screening). Indications for pelvic examinations prior to age 21 are noted in "Gynecologic Examination for Adolescents in the Pediatric Office Setting" (https://doi.org/10.1542/peds.2010-1564).
- 35. Assess whether the child has a dental home. If no dental home is identified, perform a risk assessment (https://www.aap.org/en/patient-care/oral-health/oral-health practice-tools/) and refer to a dental home. Recommend brushing with fluoride toothpaste in the proper dosage for age. See "Maintaining and Improving the Oral Health of Young Children" (https://doi.org/10.1542/peds.2014-2984)
- 36. Perform a risk assessment (https://www.aap.org/en/patient-care/oral-health/oralhealth-practice-tools/). See "Maintaining and Improving the Oral Health of Young Children" (https://doi.org/10.1542/peds.2014-2984).
- 37. The USPSTF recommends that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/preventionof-dental-caries-in-children-younger-than-age-5-years-screening-and-interventions1). Once teeth are present, apply fluoride varnish to all children every 3 to 6 months in the primary care or dental office based on caries risk. Indications for fluoride use are noted in "Fluoride Use in Caries Prevention in the Primary Care Setting" (https://doi.org/10.1542/ peds 2020-034637)
- 38. If primary water source is deficient in fluoride, consider oral fluoride supplementation. See "Fluoride Use in Caries Prevention in the Primary Care Setting" (https://doi.org/10.1542/peds.2020-034637).

# Summary of Changes Made to the Bright Futures/AAP Recommendations for Preventive Pediatric Health Care (Periodicity Schedule)

This schedule reflects changes approved in November 2021 and published in July 2022. For updates and a list of previous changes made, visit www.aap.org/periodicityschedule.

**CHANGES MADE IN NOVEMBER 2021** determinants of health, racism, poverty, and relational health. See 'Poverty and Child Health in the United States' (https://doi.org/10.1542/peds.2016-**HEPATITIS B VIRUS INFECTION** 0339), 'The Impact of Racism on Child and Adolescent Health' (https://doi. Assessing risk for HBV infection has been added to occur from newborn to org/10.1542/peds.2019-1765), and 'Preventing Childhood Toxic Stress: 21 years (to account for the range in which the risk assessment can take place) Partnering With Families and Communities to Promote Relational Health' to be consistent with recommendations of the USPSTF and the 2021–2024 (https://doi.org/10.1542/peds.2021-052582)." edition of the AAP Red Book: Report of the Committee on Infectious Diseases.

Footnote 31 has been added to read as follows: "Perform a risk assessment for hepatitis B virus (HBV) infection according to recommendations per the USPSTF (https://www.uspreventiveservicestaskforce.org/uspstf/ recommendation/hepatitis-b-virus-infection-screening) and in the 2021-2024 edition of the AAP Red Book: Report of the Committee on Infectious Diseases, making every effort to preserve confidentiality of the patient."

# SUDDEN CARDIAC ARREST AND SUDDEN CARDIAC DEATH

Assessing risk for sudden cardiac arrest and sudden cardiac death has been added to occur from 11 to 21 years (to account for the range in which the risk assessment can take place) to be consistent with AAP policy ("Sudden Death in the Young: Information for the Primary Care Provider").

Footnote 33 has been added to read as follows: "Perform a risk assessment, as appropriate, per 'Sudden Death in the Young: Information for the Primary Care Provider' (https://doi.org/10.1542/peds.2021-052044)."

## **DEPRESSION AND SUICIDE RISK**

Screening for suicide risk has been added to the existing depression screening recommendation to be consistent with the GLAD-PC and AAP policy.

Footnote 16 has been updated to read as follows: "Screen adolescents for DEVELOPMENTAL depression and suicide risk, making every effort to preserve confidentiality · Footnote 12 has been updated to read as follows: "Screening should of the adolescent. See 'Guidelines for Adolescent Depression in Primary occur per 'Promoting Optimal Development: Identifying Infant and Care (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Young Children With Developmental Disorders Through Initial Management' (https://doi.org/10.1542/peds.2017-4081), 'Mental Health Developmental Surveillance and Screening' (https://doi.org/10.1542/ Competencies for Pediatric Practice' (https://doi.org/10.1542/peds.2019-2757), peds.2019-3449)." 'Suicide and Suicide Attempts in Adolescents' (https://doi.org/10.1542/ peds.2016-1420), and 'The 21st Century Cures Act & Adolescent AUTISM SPECTRUM DISORDER Confidentiality' (https://www.adolescenthealth.org/Advocacy/Advocacy-• Footnote 13 has been updated to read as follows: "Screening should Activities/2019-(1)/NASPAG-SAHM-Statement.aspx)." occur per 'Identification, Evaluation, and Management of Children With Autism Spectrum Disorder' (https://doi.org/10.1542/peds.2019-3447)."

### **BEHAVIORAL/SOCIAL/EMOTIONAL**

The Psychosocial/Behavioral Assessment recommendation has been updated to Behavioral/Social/Emotional Screening (annually from newborn to 21 years) to align with AAP policy, the American College of Obstetricians and Gynecologists (Women's Preventive Services Initiative) recommendations and the American Academy of Child & Adolescent Psychiatry guidelines.

Footnote 14 has been updated to read as follows: "Screen for behavioral and social-emotional problems per 'Promoting Optimal Development: Screening for Behavioral and Emotional Problems' (https://doi.org/10.1542/ peds.2014-3716), 'Mental Health Competencies for Pediatric Practice' (https://doi.org/10.1542/peds.2019-2757), 'Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders' (https://pubmed.ncbi.nlm.nih.gov/32439401), and 'Screening for Anxiety in Adolescent and Adult Women: A Recommendation From the Women's Preventive Services Initiative' (https://pubmed.ncbi.nlm.nih. gov/32510990/). The screening should be family centered and may include asking about caregiver emotional and mental health concerns and social



# **FLUORIDE VARNISH**

• Footnote 37 has been updated to read as follows: "The USPSTF recommends that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption (https://www.uspreventiveservicestaskforce.org/uspstf/ recommendation/prevention-of-dental-caries-in-children-younger-than-age-5-years-screening-and-interventions1). Once teeth are present, apply fluoride varnish to all children every 3 to 6 months in the primary care or dental office based on caries risk. Indications for fluoride use are noted in 'Fluoride Use in Caries Prevention in the Primary Care Setting' (https://doi. ora/10.1542/peds.2020-034637)."

# **FLUORIDE SUPPLEMENTATION**

• Footnote 38 has been updated to read as follows: "If primary water source is deficient in fluoride, consider oral fluoride supplementation. See 'Fluoride Use in Caries Prevention in the Primary Care Setting' (https://doi. org/10.1542/peds.2020-034637)."

## **CHANGES MADE IN NOVEMBER 2020**

# **HEPATITIS C VIRUS INFECTION**

- Screening for HCV infection has been added to occur at least once between the ages of 18 and 79 years (to be consistent with recommendations of the USPSTF and CDC).
- Footnote 32 has been added to read as follows: "All individuals should be screened for hepatitis C virus (HCV) infection according to the USPSTF (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/ hepatitis-c-screening) and Centers for Disease Control and Prevention (CDC) recommendations (https://www.cdc.gov/mmwr/volumes/69/rr/ rr6902a1.htm) at least once between the ages of 18 and 79. Those at increased risk of HCV infection, including those who are persons with past or current injection drug use, should be tested for HCV infection and reassessed annually."



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