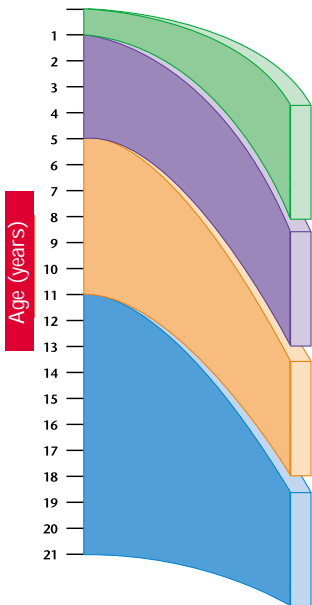


# BRIGHT FUTURES PERIODICITY



## Infancy Periodicity Schedule

Initial Visit	1 Month	6 Months
Newborn	2 Months	9 Months
Within the First Week	4 Months	

## Early Childhood Periodicity Schedule

1 Year	2 Years
15 Months	3 Years
18 Months	4 Years

## Middle Childhood Periodicity Schedule

5 Years	8 Years
6 Years	10 Years

## Adolescence Periodicity Schedule

11 Years	15 Years	18 Years
12 Years	16 Years	19 Years
13 Years	17 Years	20 Years
14 Years		21 Years

## HEARING SCREENING

### Infants Newborn Through 6 Months

#### Universal Newborn Screening

Screen all newborns at birth, before discharge from the hospital. If this is not possible, conduct initial hearing screening within the first month of life. Infants who pass screening but who have risk indicators for hearing loss need to be monitored regularly. Infants who do not pass screening must be referred promptly for formal audiologic assessment. It is essential to ensure appropriate follow-up of infants referred for assessment, identify those with congenital hearing loss by 3 months of age, and initiate intervention before 6 months of age.

#### Risk Indicators for Hearing Loss

- Family history of hereditary childhood hearing loss
- Parental/caregiver concerns about hearing, speech, language, developmental delay, learning disabilities
- In utero infection
- Craniofacial anomalies
- Inner ear malformations
- Anatomic disorders that affect eustachian tube function
- Birthweight < 1,500 g
- Hyperbilirubinemia requiring transfusion
- Ototoxic medications
- Apgar scores of 0 to 4 at 1 minute, or 0 to 6 at 5 minutes
- Mechanical ventilation  $\geq$  5 days
- Stigmata related to syndromes that include hearing loss

- Bacterial meningitis
- Neurofibromatosis type II, neurodegenerative disorders
- Persistent pulmonary hypertension
- Head trauma with loss of consciousness or skull fracture
- Recurrent or persistent otitis media with effusion (OME) lasting  $\geq$  3 months
- Neural conductive disorders
- Exposure to potentially damaging noise levels

#### Screening Methodologies

Only two physiologic tests are valid and reliable measures for use with newborns:

- Auditory brainstem response (ABR)
- Distortion product or transient evoked otoacoustic emissions (EOAE)

## Infants and Young Children 7 Months Through 3 Years

Screen audiologically all infants and children not previously screened and those with any of the risk indicators listed above.

### Screening Methodologies

Two methods are recommended for audiologic screening of children at a developmental age of 7 months through 3 years:

- Visual reinforcement audiometry (VRA), for screening children ages 6 months to 2 years
- Conditioned play audiometry (CPA), for screening preschool children ages 2 and older

## Children 4 Through 10 Years

Screen audiologically all children at ages 4, 5, 6, 8, and 10 years, or more frequently if the child has any of the risk indicators listed above.

## Screening Methodologies

- CPA
- Conventional audiometry

## Adolescents 11 Through 21 Years

Screen audiologically all adolescents at ages 12, 15, and 18 years, or more frequently if needed. Screen also at entry into special education, at grade repetition, at entry to a school system without evidence of having passed a previous hearing screening, or if absent during a previously scheduled screening.

Assess risk of hearing loss annually and screen if the adolescent has any of the risk indicators listed above.

### Screening Methodologies

- CPA
- Conventional audiometry

*Source:* Information in “Infants Newborn Through 6 Months” has been adapted from AAP<sup>1</sup> with permission, and from the Joint Committee on Infant Hearing 1994 Position Statement.<sup>2</sup> The risk indicators are drawn from ASHA<sup>3</sup> with permission. The assistance of Evelyn Cherow, M.A., ASHA, is gratefully acknowledged.

### References

1. American Academy of Pediatrics. 1999. Newborn and infant hearing loss: Detection and intervention [policy statement no. RE9846]. *Pediatrics* 103(2):527–530.
2. Joint Committee on Infant Hearing 1994 Position Statement. 1994. *ASHA* 36:38–41; also available in *Pediatrics* 95(1):152–156.
3. American Speech-Language-Hearing Association, Panel on Audiologic Assessment. 1997. *Guidelines for Audiologic Screening*. Rockville, MD: American Speech-Language-Hearing Association.

## VISION SCREENING

Function	Recommended Tests	Referral Criteria	Comments*
Distance visual acuity Ages 3–5y	Snellen letters Snellen numbers Tumbling E HOTV Picture tests Allen figures LH symbol test	<ol style="list-style-type: none"> <li>1. Less than 4 of 6 correct on 20-ft line with either eye tested at 10 ft monocularly (i.e., &lt; 10/20 or 20/40)</li> <li>2. Two-line difference between eyes, even within the passing range (i.e., 10/12.5 and 10/20 or 20/25 and 20/40)</li> </ol>	<ol style="list-style-type: none"> <li>1. Tests are listed in decreasing order of cognitive difficulty; the highest test that the child is capable of performing should be used. In general, the Tumbling E or the HOTV test should be used for ages 3–5 years and Snellen letters or numbers for ages 6 years and older.</li> </ol>
Distance visual acuity Ages 6y and older	Snellen letters Snellen numbers Tumbling E HOTV Picture tests Allen figures LH symbol test	<ol style="list-style-type: none"> <li>1. Less than 4 of 6 correct on 15-ft line with either eye tested at 10 ft monocularly (i.e., &lt; 10/15 or 20/30)</li> <li>2. Two-line difference between eyes, even within the passing range (i.e., 10/10 and 10/15 or 20/20 and 20/30)</li> </ol>	<ol style="list-style-type: none"> <li>2. Testing distance of 10 ft is recommended for all visual acuity tests.</li> <li>3. A line of figures is preferred over single figures.</li> <li>4. The nontested eye should be covered by an occluder held by the examiner or by an adhesive occluder patch applied to the eye; the examiner must ensure that it is not possible to peek with the nontested eye.</li> </ol>
Ocular alignment Ages 3y and older	Unilateral cover test at 10 ft or 3 m; <i>or</i> Random-dot-E stereo test at 40 cm (630 secs of arc)	Any eye movement Less than 4 of 6 correct	

\*Comments pertain to distance visual acuity.

Source: Adapted with permission from American Academy of Pediatrics. 1996. Eye examination and vision screening in infants, children, and young adults [Appendix 1]. *Pediatrics* 98(1):153–157. Also available at <http://www.aap.org/policy/01461t1.htm>. Copyright © 1996 American Academy of Pediatrics.

## SCREENING FOR SEXUALLY TRANSMITTED DISEASES

### Screening Recommendations

#### Bacterial Vaginosis (BV)

Screen asymptomatic pregnant females; screen symptomatic females annually.

#### Chlamydia

Screen sexually active males and females (including asymptomatic persons) annually.

#### Gonorrhea

Screen sexually active males and females (including asymptomatic persons) annually.

#### Hepatitis B Virus (HBV)

Ensure that adolescent has been immunized.

#### Herpes Simplex Virus

Examine sexually active males and females annually for ulcerative lesions; ask about genital pain.

#### HIV/AIDS

Screen if requested or if any risk factors are present.

Obtain informed consent and provide adolescent-specific pretest and posttest counseling.

#### Human Papilloma Virus (HPV)

Examine sexually active males and females annually for warts; screen females with Pap smear.

#### Syphilis (VDRL/RPR)

Screen if requested or if any risk factors are present.

#### Trichomoniasis

Screen symptomatic females annually.

### Risk Factors for Syphilis and HIV/AIDS

- History of STDs
- More than one sex partner in past 6 months
- Intravenous drug use
- Sexual intercourse with a partner at risk
- Sex in exchange for drugs or money
- Homelessness
- *For males:* Sex with other males
- *For HIV/AIDS only:* Blood or blood product transfusion before 1985
- *For syphilis only:* Residence in areas where syphilis is prevalent

*Source:* Screening information was compiled with the assistance of Donald P. Orr, M.D., Indiana University, and S. Jean Emans, M.D., Children's Hospital, Boston.

## IRON-DEFICIENCY ANEMIA SCREENING

### CDC Screening Guidelines<sup>1</sup>

#### Infants Newborn to 12 Months and Children 1 to 5 Years

Assess all infants and children ages 1 to 5 years for risk of iron-deficiency anemia. Screen those at high risk or with known risk factors using a standard laboratory test.

#### *Universal Screening for Infants and Children at High Risk*

Screen high-risk infants ages 9 to 12 months, and rescreen 6 months later (at 15 to 18 months). Screen high-risk children ages 2 to 5 annually. Include infants and children

- From families with low incomes
- Who are eligible for WIC
- Whose parents are migrants or recently arrived refugees

#### *Selective Screening for Infants and Children with Known Risk Factors*

Screen infants and children not at high risk, but who have known risk factors.

Screen preterm infants and low-birthweight infants younger than 6 months who are fed non-iron-fortified infant formula.

Screen at 9 to 12 months, and rescreen 6 months later (at 15 to 18 months), infants and children with the following risk factors:

- Infants born preterm or with low birthweight
- Infants fed non-iron-fortified infant formula for more than 2 months
- Infants fed cow's milk before 12 months of age

- Breastfed infants not receiving enough iron after 6 months of age
- Children consuming more than 24 oz of cow's milk per day after 12 months of age
- Children with special health care needs who use medications that interfere with iron absorption and those with chronic infection or inflammation, restricted diets, or extensive blood loss

Annually screen children ages 2 to 5 who

- Consume a diet low in iron
- Have limited access to food because of poverty or neglect
- Have special health care needs

### Children Ages 5 to 12 and Adolescent Males Ages 12 to 18

Screen only those with known risk factors (e.g., low iron intake, special health care needs, history of anemia).

### Adolescent Females Ages 12 to 18 and Nonpregnant Women of Childbearing Age

Annually screen those with known risk factors (e.g., excessive menstrual or other blood loss, low iron intake, a history of anemia). Screen every 5 to 10 years during routine health examinations.

### Pregnant Adolescents and Women

Screen at first prenatal care visit.

### Males Ages 18 and Older

No routine screening is recommended. Evaluate iron-deficiency anemia detected during routine health examinations.

### AAP Recommendations for Additional Screening<sup>2,3</sup>

- Screen *all* infants at 9 to 12 months, not just those at high risk or with known risk factors
- Screen adolescent males during routine health examinations in their peak growth period
- Screen adolescent females during all routine health examinations

### Additional Risk Factors for Iron-Deficiency Anemia<sup>1</sup>

- Periods of rapid growth
- Low intake of meat, fish, poultry, or foods rich in ascorbic acid
- Macrobiotic diets
- Meal skipping, frequent dieting
- Pregnancy or recent pregnancy
- Participation in endurance physical activities (e.g., long-distance running, swimming, biking)

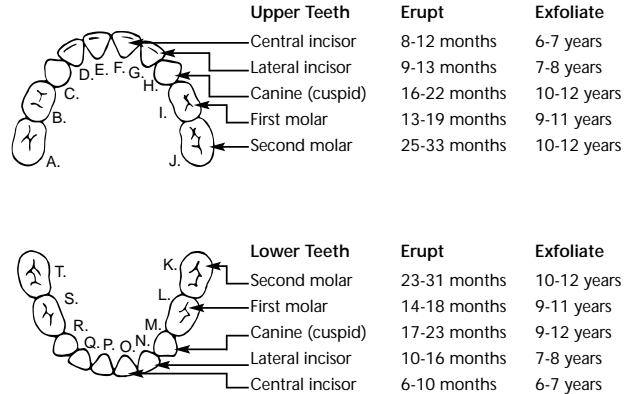
- Intensive physical training
- Recent blood loss, heavy/lengthy menstrual periods
- Chronic use of aspirin or non-steroidal anti-inflammatory drugs (e.g., ibuprofen)
- Parasitic infections

### References

1. Centers for Disease Control and Prevention. 1998. Recommendations to prevent and control iron deficiency in the United States. *MMWR* 47(No. RR-3).
2. American Academy of Pediatrics, Committee on Nutrition. 1998. *Pediatric Nutrition Handbook* (4th ed.). Elk Grove Village, IL: American Academy of Pediatrics.
3. American Academy of Pediatrics, Committee on Psychological Aspects of Child and Family Health. 1997. *Guidelines for Health Supervision III*. Elk Grove Village, IL: American Academy of Pediatrics.

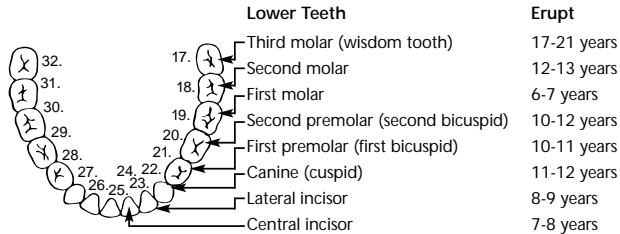
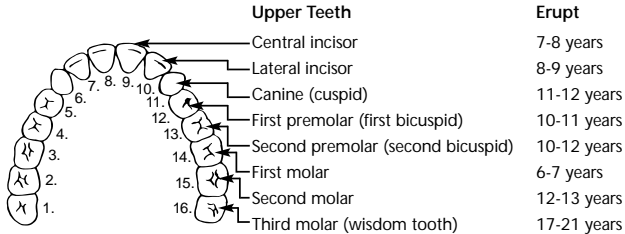
# TOOTH ERUPTION CHART

## PRIMARY DENTITION





**PERMANENT DENTITION**



Source: Reproduced with permission from the Arizona Department of Health Services, Office of Oral Health, courtesy of Don Altman, D.D.S., M.P.H. The assistance of the American Dental Hygienists' Association is gratefully acknowledged.