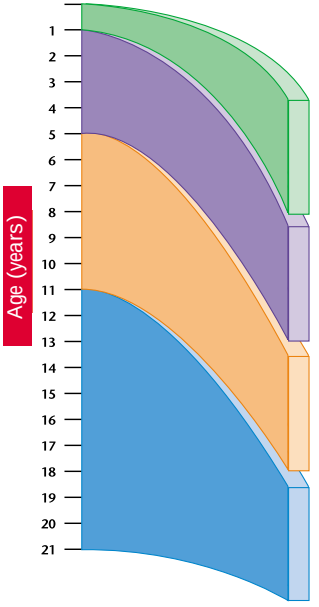
# BRIGHT FUTURES PERIODICITY




## 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 |

# RECOMMENDED IMMUNIZATION SCHEDULE: 2001

| Age ▶ Vaccine ▼ | Birth | 1 mo | 2 mos | 4 mos | 6 mos | 12 mos | 15 mos | 18 mos | 24 mos | 4–6 yrs | 11–12 yrs | 14–18 yrs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hepatitis B[2] | Hep B #1 | Hep B #2 | | | Hep B #3 | | | | | | Hep B[2] | |
| Diphtheria, Tetanus, Pertussis[3] | | | DTaP | DTaP | DTaP | | DTaP[3] | | | DTaP | Td | |
| *H. influenzae* type b[4] | | | Hib | Hib | Hib | Hib | | | | | | |
| Inactivated Polio[5] | | | IPV | IPV | IPV[5] | | | | | IPV[5] | | |
| Pneumococcal Conjugate[6] | | | PCV | PCV | PCV | PCV | | | | | | |
| Measles, Mumps, Rubella[7] | | | | | | MMR | | | | MMR[7] | MMR[7] | |
| Varicella[8] | | | | | | Var | | | | | Var[8] | |
| Hepatitis A[9] | | | | | | | | | Hep A—in selected areas[9] | | | |

Approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).

*Source:* Centers for Disease Control and Prevention. 2001. Recommended childhood immunization schedule—United States, January–December 2001. *MMWR* 50(1):7–10; available at http://www.cdc.gov/nip/recs/child-schedule.pdf. See also American Academy of Pediatrics. 2001. *Pediatrics* 107(1):202–204; available at http://www.aap.org/family/parents/immunize.htm.

Vaccines are listed under routinely recommended ages.[1] Bars indicate range of recommended ages for immunization. Any dose not given at the recommended age should be given as a "catch-up" immunization at any subsequent visit when indicated and feasible. Ovals indicate vaccines to be given if previously recommended doses were missed or given earlier than the recommended minimum age.

*(See notes on pp. 52–53.)*

[1]This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines as of 11/01/00 for children through 18 years of age. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and its other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

[2]***Infants born to HBsAg-negative mothers*** should receive the first dose of hepatitis B (Hep B) vaccine by age 2 months. The second dose should be at least 1 month after the first dose. The third dose should be administered at least 4 months after the first dose and at least 2 months after the second dose, but not before 6 months of age for infants.

***Infants born to HBsAg-positive mothers*** should receive hepatitis B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate sites. The second dose is recommended at 1–2 months of age and the third dose at 6 months of age.

***Infants born to mothers whose HBsAg status is unknown*** should receive hepatitis B vaccine within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than 1 week of age).

***All children and adolescents*** who have not been immunized against hepatitis B should begin the series during any visit. Special efforts should be made to immunize children who were born in or whose parents were born in areas of the world with moderate or high endemicity of hepatitis B virus infection.

[3]The fourth dose of DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) may be administered as early as 12 months of age, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15–18 months. Td (tetanus and diphtheria toxoids) is recommended at 11–12 years of age if at least 5 years have elapsed since the last dose of DTP, DTaP, or DT. Subsequent routine Td boosters are recommended every 10 years.

[4]Three *Haemophilus influenzae* type b (Hib) conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at 2 and 4 months of age, a dose at 6 months is not required. Because clinical studies in infants have demonstrated that using some combination products may induce a lower immune response to the Hib vaccine component, DTaP/Hib combination products should not be used for primary immunization in infants at 2, 4, or 6 months of age, unless FDA-approved for these ages.

[5]An all-IPV schedule is recommended for routine childhood polio vaccination in the United States. All children should receive four doses of IPV at 2 months, 4 months, 6–18 months, and 4–6 years of age. Oral poliovirus vaccine (OPV) should be used only in selected circumstances. (See *MMWR* May 19, 2000; 49[RR-5]:1–22.)

[6]The heptavalent conjugate pneumococcal vaccine (PCV) is recommended for all children 2–23 months of age. It also is recommended for certain children 24–59 months of age. (See *MMWR* Oct. 6, 2000; 49[RR-9]:1–35.)

[7]The second dose of measles, mumps, and rubella (MMR) vaccine is recommended routinely at 4–6 years of age but may be administered during any visit, provided at least 4 weeks have elapsed since receipt of the first dose and that both doses are administered beginning at or after 12 months of age. Those who have not previously received the second dose should complete the schedule by the 11- to 12-year-old visit.

[8]Varicella (VAR) vaccine is recommended at any visit on or after the first birthday for susceptible children (i.e., those who lack a reliable history of chickenpox [as judged by a health care provider] and who have not been immunized). Susceptible persons 13 years of age or older should receive two doses, given at least 4 weeks apart.

[9]Hepatitis A (Hep A) is shaded to indicate its recommended use in selected states and/or regions, and for certain high risk groups; consult your local public health authority. (See *MMWR* Oct. 1, 1999; 48[RR-12]:1–37.)

*For additional information about the vaccines listed above, please visit the National Immunization Program Home Page at http://www.cdc.gov/nip/ or call the National Immunization Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).*

# 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 ≥ 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 ≥ 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[1] with permission, and from the Joint Committee on Infant Hearing 1994 Position Statement.[2] The risk indicators are drawn from ASHA[3] 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**<br>**Ages 3–5y** | Snellen letters<br>Snellen numbers<br>Tumbling E<br>HOTV<br>Picture tests<br>Allen figures<br>LH symbol test | 1. Less than 4 of 6 correct on 20-ft line with either eye tested at 10 ft monocularly (i.e., < 10/20 or 20/40)<br>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) | 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.<br>2. Testing distance of 10 ft is recommended for all visual acuity tests.<br>3. A line of figures is preferred over single figures.<br>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. |
| **Distance visual acuity**<br>**Ages 6y and older** | Snellen letters<br>Snellen numbers<br>Tumbling E<br>HOTV<br>Picture tests<br>Allen figures<br>LH symbol test | 1. Less than 4 of 6 correct on 15-ft line with either eye tested at 10 ft monocularly (i.e., < 10/15 or 20/30)<br>2. Two-line difference between eyes, even within the passing range (i.e., 10/10 and 10/15 or 20/20 and 20/30) | |
| **Ocular alignment**<br>**Ages 3y and older** | Unilateral cover test at 10 ft or 3 m; *or*<br>Random-dot-E stereo test at 40 cm (630 secs of arc) | Any eye movement<br>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. 

# 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[1]

### 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[2,3]

- 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[1]

- 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.

# SCREENING FOR ELEVATED BLOOD LEAD LEVELS

## CDC Screening Recommendations

The following information is based on CDC's lead screening guidance for state and local public health officials.[1] AAP supports the CDC guidelines for universal or targeted screening.

Based on its current preventive health care recommendations, AAP suggests that infants and children at risk should be screened for elevated blood lead levels beginning at 9 to 12 months, and rescreened at 24 months.[2,3]

Note that federal Medicaid policy requires that all Medicaid-eligible children be screened for elevated blood lead levels, based on the following universal screening recommendations.

### Universal Screening

Universal screening is recommended in communities in which the risk of lead exposure is widespread. A sample universal screening recommendation follows.[1(p85)]

*Sample Universal Screening*

Using a blood lead test, screen all children at ages 1 and 2, and all children 36–72 months of age who have not been previously screened.

### Targeted Screening

Targeted screening is recommended in communities in which the risk of lead exposure is not widespread. A sample targeted screening recommendation follows.[1(p85)]

*Sample Targeted Screening*

Using a blood lead test, screen children at ages 1 and 2, and all children 36–72 months of age who have not been previously screened, if they meet one of the following health department criteria:

- Child resides in a geographic area (e.g., a specified zip code) in which ≥ 27 percent of housing was built before 1950
- Child receives services from public assistance programs such as Medicaid or WIC
- Child's parent or guardian answers "yes" or "don't know" to any of the three questions in the basic personal-risk questionnaire

## A Basic Personal-Risk Questionnaire for Lead Exposure in Children

1. Does your child live in or regularly visit a house or child-care facility that was built before 1950?
2. Does your child live in or regularly visit a house or child-care facility built before 1978 that is being or has recently been renovated or remodeled (within the last 6 months)?
3. Does your child have a sibling or playmate who has or did have lead poisoning?

*Source:* Reproduced with permission from AAP,[2] based on CDC.[1(p62)] Copyright © 1998 American Academy of Pediatrics.

## History of Possible Lead Exposure

Periodically assess infants and children ages 6 months to 6 years for a history of possible lead exposure, using the basic personal-risk questionnaire and asking any additional questions recommended by the state or local health department. Screening is suggested for abused or neglected children and for children who have conditions associated with increased lead exposure.[2]

## References


1. Centers for Disease Control and Prevention. 1997. *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials.* Atlanta, GA: Centers for Disease Control and Prevention. Also in Centers for Disease Control and Prevention [Web site]. Cited May 14, 1999; available at http://www.cdc.gov/nceh/programs/lead/guide/1997/guide97.htm.
2. American Academy of Pediatrics. 1998. Screening for elevated blood lead levels [policy statement no. RE9815]. *Pediatrics* 101(6):1072–1078. Also in American Academy of Pediatrics [Web site]. Cited May 14, 1999; available at http://www.aap.org/policy/re9815.html.
3. American Academy of Pediatrics. 2000. *Recommendations for Preventive Pediatric Health Care* (RE9939). Available in American Academy of Pediatrics [Web site]. Cited August 7, 2000; available at http://www.aap.org/policy/RE9939.html.

# HYPERLIPIDEMIA SCREENING

Hyperlipidemia refers to an elevation in serum levels of any or all lipids such as total cholesterol (TC), triglycerides (TG), and lipoproteins. TC, TG, high-density lipoprotein cholesterol (HDL-C), and low-density lipoprotein cholesterol (LDL-C) may need to be measured, based on assessed risk.

Increasing evidence suggests that atherosclerosis and coronary heart disease (CHD) involve processes begins in childhood or adolescence.[1] Depending on family history, children at risk for hyperlipidemia should be selectively screened beginning at age 2.[2]

## Screening

The table below lists major risk factors and recommended screening procedures for hyperlipidemia. Children and adolescents whose family history is unknown, particularly those with other risk factors, should be screened with a TC.[2]

**Hyperlipidemia Screening Recommendations Based on Family History**

| Major Risk Factor | Recommended Screening Procedure |
|---|---|
| • Parent or grandparent ≤ 55 years of age diagnosed with coronary atherosclerosis (based on coronary arteriography), including those who have had balloon angioplasty or coronary artery bypass surgery | • Screen with fasting lipoprotein analysis (12-hour fast)<br>• Repeat lipoprotein analysis and calculate the average LDL-C |
| • Parent or grandparent ≤ 55 years of age with documented myocardial infarction, angina pectoris, peripheral vascular disease, cerebrovascular disease, or sudden cardiac death | • Screen with fasting lipoprotein analysis (12-hour fast)<br>• Repeat lipoprotein analysis and calculate the average LDL-C |
| • Parent with high cholesterol level (≥ 240 mg/dl)<br>• Family history unknown | • Measure TC |

*Source:* AAP.[2]

The following risk factors are also associated with the development of atherosclerosis and CHD:[2]

- Family history of premature CHD, cerebrovascular disease, or occlusive peripheral vascular disease (< age 55 in siblings, parent, or sibling of parent)
- Cigarette smoking
- Elevated blood pressure
- Low HDL-C concentration (< 35 mg/dL)
- Severe obesity (BMI ≥ 95th percentile)
- Diabetes mellitus
- Physical inactivity

## Follow-Up: TC Screening

- If TC is < 170 mg/dL, rescreen within 5 years.
- If TC is between 170 and 199 mg/dL, measure TC again and calculate the average.
- If average TC is < 170 mg/dL, rescreen within 5 years.
- If average TC is ≥ 170 mg/dL, screen with fasting lipoprotein analysis to calculate LDL–C.
- If TC is > 200 mg/dL, screen with fasting lipoprotein analysis to determine LDL-C.

## Follow-Up: LDL-C Screening

- If average fasting LDL-C level is < 110 mg/dL, rescreen within 5 years.
- If average fasting LDL-C level is 110 to 129 mg/dL, reevaluate in 1 year.
- If average fasting LDL-C level is ≥ 130 mg/dL, consider referral to a dietitian or a lipid center.

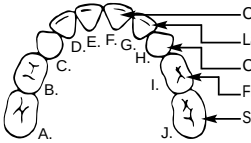
*Source:* Information on screening procedures has been adapted from AAP[2] with permission. The assistance of Robert L. Markowitz, M.D., Children's Hospital, Boston, is gratefully acknowledged.

## References

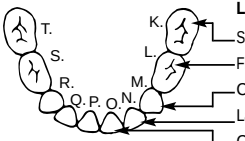
1. Berenson GS, Srinivasan SR, Bao W, Newman III WP, Tracy RE, Wattigney WA. 1998. Association between multiple cardiovascular risk factors and atherosclerosis in children and young adults. *New England Journal of Medicine* 338(23):1650–1656.
2. American Academy of Pediatrics, Committee on Nutrition. 1998. Cholesterol in childhood. *Pediatrics* 101(1):141–147.

# TOOTH ERUPTION CHART

## PRIMARY DENTITION

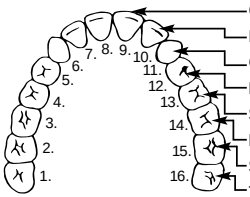



| Upper Teeth | Erupt | Exfoliate |
|---|---|---|
| Central incisor | 8-12 months | 6-7 years |
| Lateral incisor | 9-13 months | 7-8 years |
| Canine (cuspid) | 16-22 months | 10-12 years |
| First molar | 13-19 months | 9-11 years |
| Second molar | 25-33 months | 10-12 years |

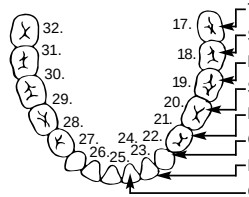



| Lower Teeth | Erupt | Exfoliate |
|---|---|---|
| Second molar | 23-31 months | 10-12 years |
| First molar | 14-18 months | 9-11 years |
| Canine (cuspid) | 17-23 months | 9-12 years |
| Lateral incisor | 10-16 months | 7-8 years |
| Central incisor | 6-10 months | 6-7 years |

## PERMANENT DENTITION




| Upper Teeth | Erupt |
|---|---|
| Central incisor | 7-8 years |
| Lateral incisor | 8-9 years |
| Canine (cuspid) | 11-12 years |
| First premolar (first bicuspid) | 10-11 years |
| Second premolar (second bicuspid) | 10-12 years |
| First molar | 6-7 years |
| Second molar | 12-13 years |
| Third molar (wisdom tooth) | 17-21 years |




| Lower Teeth | Erupt |
|---|---|
| Third molar (wisdom tooth) | 17-21 years |
| Second molar | 12-13 years |
| First molar | 6-7 years |
| Second premolar (second bicuspid) | 10-12 years |
| First premolar (first bicuspid) | 10-11 years |
| Canine (cuspid) | 11-12 years |
| Lateral incisor | 8-9 years |
| Central incisor | 7-8 years |

*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.

# SEXUAL MATURITY RATINGS

Sexual maturity ratings (SMRs) are widely used to assess adolescents' physical development during puberty in five stages (from preadolescent to adult). Also known as Tanner stages, SMRs are a way of assessing the degree of maturation of secondary sexual characteristics. The developmental stages of the adolescent's sexual characteristics should be rated separately (i.e., one stage for pubic hair and one for breasts in females, one stage for pubic hair and one for genitals in males), because these characteristics may differ in their degree of maturity.

**Sexual Maturity Ratings: Males**

| SMR | Pubic Hair |
|---|---|
| Stage 1 | None |
| Stage 2 | Scanty, long, slightly pigmented, primarily at base of penis |
| Stage 3 | Darker, coarser, starts to curl, small amount |
| Stage 4 | Coarse, curly; resembles adult type but covers smaller area |
| Stage 5 | Adult quantity and distribution, spread to medial surface of thighs |

| SMR | Genitals | |
|---|---|---|
| | Penis | Testes |
| Stage 1 | Preadolescent | Preadolescent |
| Stage 2 | Slight enlargement | Slight enlargement of testes and scrotum; scrotal skin reddened, texture altered |
| Stage 3 | Longer | Further enlargement of testes and scrotum |
| Stage 4 | Larger in breadth, glans penis develops | Further enlargement of testes and scrotum |
| Stage 5 | Adult | Adult |

**Sexual Maturity Ratings: Females**

| SMR | Pubic Hair |
|---|---|
| Stage 1 | None |
| Stage 2 | Sparse, slightly pigmented, straight, at medial border of labia |
| Stage 3 | Darker, beginning to curl, increased amount |
| Stage 4 | Coarse, curly, abundant, but amount less than in adult |
| Stage 5 | Adult feminine triangle, spread to medial surface of thighs |

| SMR | Breasts |
|---|---|
| Stage 1 | Preadolescent |
| Stage 2 | Breast and papilla elevated as small mound; areolar diameter increased |
| Stage 3 | Breast and areola enlarged, no contour separation |
| Stage 4 | Areola and papilla form secondary mound |
| Stage 5 | Mature; nipple projects, areola part of general breast contour |

*Source:* Tables have been adapted with permission from Daniels[1(p29)] (as drawn from Tanner[2]); see also Spear.[3(p4)]

## References


1. Daniels WA. 1977. *Adolescents in Health and Disease.* St. Louis, MO: Mosby, Inc.
2. Tanner JM. 1962. *Growth at Adolescence* (2nd ed.). Oxford, England: Blackwell Scientific Publications.
3. Spear B. 1996. Adolescent growth and development. In Rickert VI, ed., *Adolescent Nutrition: Assessment and Management* (pp. 3–24). New York, NY: Chapman and Hall (Aspen Publishers, Inc.).

# SAFE, QUALITY CHILD CARE

## Selecting a Child Care Provider

The U.S. Department of Health and Human Services' Administration for Children and Families recommends four steps for parents in selecting a child care provider.

### 1. Interview Caregivers.

*Call the caregiver and ask about*

- Location; hours and days open
- Openings available; transportation provided
- Costs and financial assistance available
- Number and ages of children in care
- Meals and snacks provided
- Licensing, accreditation, or other certification
- Convenient time to visit

*Visit the child care facility or home more than once, and stay as long as you can. Look for*

- Positive interactions between caregiver and children
- Evidence that children are getting individual attention, are happily involved in activities, and are comfortable with their caregivers
- Clean, safe, and healthy indoor and outdoor environment; areas for naps, meals, and toileting
- Toys and learning materials that contribute to children's growth and development

*Ask caregiver about*

- Visiting your child during the day
- Discipline; sick children, emergencies
- Training of staff and substitutes
- Immunizations required for children and staff
- Their license or other certification (ask to see a copy)
- Substitute or back-up caregivers
- A list of parents who use or have used their care
- Napping areas; placement of babies on their backs to sleep

### 2. Check References.

*Ask other parents who use the caregiver about*

- The caregiver's reliability, discipline methods
- Their child's experience with the caregiver
- The caregiver's response to the parents and respect for their values and culture

- Whether they would strongly recommend the caregiver
- If their child is no longer with the caregiver, why they left

*Ask the local child care resource and referral program or licensing office about*

- Regulations for child care providers in your area
- How to check for any record of complaints about the child care provider

### 3. Make the Decision for Quality Care.

*From what you heard and saw, choose*

- The best place for your child to be happy and grow
- The caregiver who will best meet your child's needs
- The caregiver whose values are compatible with yours
- The care that is accessible and affordable
- The care that makes you feel good about your decision

### 4. Stay Involved.

*Once you make a decision, think about ways to*

- Arrange your schedule so that you can
  - Talk with the caregiver daily
  - Talk with your child daily about how the day went
  - Visit your child at different times of the day
  - Be involved in your child's activities
- Work with the caregiver to resolve any issues and concerns
- Keep informed about your child's growth and development while in care
- Promote good working conditions for the child care provider
- Network with other parents

*For more information on health and safety guidelines, call the National Resource Center for Health and Safety in Child Care at (800) 598-KIDS (5437); for the name of the nearest Child Care Resource and Referral Program, call Child Care Aware at (800) 424-2246.*

*Source:* Adapted from U.S. Department of Health and Human Services, Administration for Children and Families, Child Care Bureau. *Four Steps to Selecting a Child Care Provider.* In Administration for Children and Families [Web site]. Cited April 22, 1999; available at http://www.acf.dhhs.gov/programs/ccb/faq/4steps.htm.

# Child Care Safety Checklist for Parents and Child Care Providers

To increase injury prevention awareness and reduce injuries among infants and children, the Consumer Product Safety Commission (CPSC) developed the following safety checklist:

- ❑ ***Cribs:*** Be sure that cribs meet current national safety standards and are in good condition. Look for a certification safety seal. Older cribs may not meet current standards. Crib slats should be no more than 2 3/8 inches apart, and mattresses should fit snugly.
- ❑ ***Soft bedding:*** Be sure that no pillows, soft bedding, or comforters are used when putting babies to sleep. Babies should be put to sleep on their backs in a crib with a firm, flat mattress.
- ❑ ***Playground surfacing:*** Look for safe surfacing on outdoor playgrounds: at least 12 inches of wood chips, mulch, sand, or pea gravel, or mats made of safety-tested rubber or rubber-like materials.
- ❑ ***Playground maintenance:*** Check playground surfacing and equipment regularly to make sure they are in good condition and properly maintained.
- ❑ ***Safety gates:*** Be sure that safety gates are used to keep children away from potentially dangerous areas, especially stairs.
- ❑ ***Window blind and curtain cords:*** Check that blinds do not have looped cords, and that vertical blinds, continuous looped blinds, and drapery cords have tension or tie-down devices to hold the cords tight.
- ❑ ***Clothing drawstrings:*** Be sure that there are no drawstrings around the hood and neck of children's outerwear. Other types of fasteners (e.g., snaps, zippers, Velcro) should be used.
- ❑ ***Recalled products:*** Check that no recalled products are being used and that a current list of recalled children's products is prominently posted.

*For more information, contact*
U.S. Consumer Product Safety Commission
Washington, DC 20207
Consumer Hotline: (800) 638-2772
Web site: http://www.cpsc.gov

*Source:* Adapted from U.S. Consumer Product Safety Commission. *Child Care Safety Checklist for Parents and Child Care Providers.* In Consumer Product Safety Commission [Web site]. Cited April 25, 2000; available at http://www.cpsc.gov/cpscpub/ pubs/chldcare.html.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