

**PEDIATRIC PROTOCOLS**  
**Health Care for the Homeless Network**

Draft 3/12/09

Approved by \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Disclaimer: The Pediatric Protocols are developed in collaboration with providers delivering services to homeless people in the field. Each agency using the protocols is responsible for review and approval of each protocol. Public Health-Seattle & King County is not responsible for any misinterpretation or misuse of the contents of this guide.

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## **I. GENERAL PRINCIPLES**

1. All encounters are to be recorded on contact forms or in chart notes in the SOAP format. All encounters should include a specific follow-up plan.
  2. Episodic care should be used as a tool to engage the patient's interest and cooperation in health screening and referral for comprehensive health care. Specific times for screening only are to be set aside for each site.
  3. The minimum screening that needs to be recorded as baseline data prior to episodic care is immunization status, chronic illnesses, current medications, and known allergies. For patients making repeat visits for episodic care, either an attempt must be made to proceed with further screening and referral during those visits or the patient is to be offered comprehensive screening at the time set aside for that.
  4. Authorized episodic care will be carried out according to the standards set forth in the nursing protocols, which specify assessment information expected to be obtained and recorded, authorized therapeutic interventions and parameters for referral.
  5. Over-the-counter medications dispensed at any given encounter are to be limited to the number specified on each protocol at maximum, although this can be repeated after reevaluation at subsequent encounters. Charting should record the exact number of pills dispensed. Prescription medication (i.e., Lindane, Nitroglycerin) given under standing orders requires the signature of the supervising physician or ARNP.
  6. A file of health teaching brochures is to be maintained and used for patient education.
  7. A list of authorized medications and supplies is attached. Use of anything not listed requires approval of the supervising physician.
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## **II. GENERAL AND SUPPORTIVE CARE**

**System: General & Supportive Care**

**Problem: Fever**

I. Assessment

A. Subjective:

1. Onset, duration, level of fever, route of temperature measurement  
What treatment has already been given
2. History of medical problems: any chronic diseases (i.e., asthma, diabetes, etc.), recurrent ear infections, febrile convulsions, recent immunization, and exposure to illness
3. Activities of Daily Living: sleeping/rest, appetite, fluid intake, elimination - stool and urine (number of wet diapers), play/interactions, alertness, irritability.
4. Associated symptoms: cough, SOB, URI symptoms, chills, rash, nausea/vomiting/diarrhea/constipation, abdominal pain, urinary problems, etc.
5. History of trauma

B. Objective:

1. Temperature, BP, RR, HR
2. Mental status: (i.e., alert, playful, fussy, lethargic, respiratory distress)
3. Skin: examine for rash
4. Hydration Status: evaluate the fontanel in infants, moistness of oral mucosa, skin turgor (either extreme - poor turgor or doughy), dryness of skin. (See addendum: dehydration assessment)

II. Intervention

A. Patient Education:

1. Methods to encourage fluid intake
2. Comfort measures and fever reduction
  - a. Dress patient lightly
  - b. Luke warm towels or sponge bath (most effective when couples with antipyretic administration). Avoid chilling
  - c. Antipyretic medication
    - Acetaminophen or Ibuprofen - dose calculated by weight (see addendum: Medication dosing).
    - avoid aspirin use in children less than 16 years
3. Instruct parent how to monitor child's status
  - a. Hydration status
    - 1) Numbers and amounts of voidings or wet diapers (*decreased significantly in amount and frequency i.e., no voiding in 6 hours*)
    - 2) Skin turgor (*dry with decreased turgor or dry and doughy*)
    - 3) Moistness of oral cavity/mucous membranes (*no sublingual pool of saliva, dry buccal mucosa*)
    - 4) Amount of oral intake (See recommendation for oral intake based on hydration stated in Home Preparations addendum)
  - b. Mental status/behavior
    - 1) Increased lethargy/sleeping
    - 2) Increased irritability/inconsolability

- 3) Confusion
  - determine if due to level of fever or other etiology by administering antipyretic. (*If unchanged after 30 minutes, probably due to other etiology and needs evaluation*)
  - c. Additional signs and symptoms (*vomiting, diarrhea, shortness of breath, hematuria, dysuria, abdominal pain, tachypnea, etc.*)
  - d. Instruct or review thermometer use for monitoring fever
4. Instruct or review how to access appropriate and available health care providers if status worsens
- C. Follow-up:
  1. Recheck temperature in 1-2 hours and assess child's status
  2. Plan continued follow up based on condition of child, the parents capability and comfort with

### III. Referral

- A. Call 911 for immediate transfer to emergency room for any child with significantly altered mental status, a rapidly progressing pruritic rash, or having a seizure
  - B. Same day medical evaluation for:
    1. Any infant less than age 2 months with fever (100.4°F/38°C rectal)
    2. Any child with fever measuring 102 °F or greater and no concurrent signs and symptoms
    3. Any child with a fever less than 102 °F with concurrent symptoms or signs of significant illness
    4. Any child with a history of seizures
    5. Any child with a history of head or body trauma
  - C. Refer to PCC evaluation of children with fever of less than 102 °F if experiencing no or minor concurrent signs and symptoms after 48 hours of persistent fever
-

**Problem: Immunization**

I. Assessment

A. Subjective

Assess for contraindications or precautions for specific immunizations. Refer to the National Immunization Program website ([www.cdc.gov/nip/recs/contraindications\\_vacc.htm](http://www.cdc.gov/nip/recs/contraindications_vacc.htm)) for the most current contraindications and precautions.

Suggested questions for evaluating for contraindications are:

1. Any reaction after any previous immunization? If yes, describe
2. Does the person have any allergies? If yes, consult with PHSKC Immunization Program or CDC Hotline
3. Does the person receiving the immunization or anyone in the household have an immune system that may not be working well or normally? People with cancer, those taking chemotherapy or high doses of steroids, and people with HIV or AIDS are examples of people whose immune system is not working well. Is there anyone who fits in this category?
4. Is the person receiving the immunization pregnant or at risk of becoming pregnant within the next three weeks?
5. Did the person have a shot of immune globulin in the last 3 months?
6. How is the health of the person receiving the immunization?

General Rules of Childhood Vaccination

Rule #1: Increasing the Interval Between Doses of the Same Vaccine

It is *not necessary to restart* the series of any vaccine due to extended intervals between doses

Rule #2: Decreasing the Interval Between Doses of the Same Vaccine

If a vaccine dose is given prior to the minimum acceptable interval, it should *not be counted*

Rule #3: Adverse Events Following Vaccination

Adverse events following *live* attenuated vaccines are similar to a mild form of the natural illness. Adverse events following *inactivated* vaccines are mostly local (redness, pain or swelling at injection site), with or without fever

Rule #4: Simultaneous Administration

There are no contraindications to the simultaneous administration of any vaccines (except cholera and yellow fever)

Rule #5: Split Doses

Any vaccine using *less* than the standard dose or a nonstandard route or site of administration *should not be counted*, and the person should be revaccinated according to age



Rule #6: Pregnancy in Household Contacts

Infants or children with pregnant household contacts *may receive all vaccines*, including live vaccines (MMR, OPV, Varicella, and Yellow Fever)

Rule #7: Breast-Feeding

Breastfeeding is *not a contraindication* to the administration of any vaccine, to either the mother or to the child

(For more detailed information on these and other guidelines (including Accelerated Schedules, Contraindications, etc.), refer to the current *ACIP Statement "General Recommendations on Immunization"*)

B. Objective

1. Assess the child's present immunization status by comparing to **The Recommended Childhood Immunization Schedule** ([www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#](http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#)). The immunizations must be documented in some form. A statement from memory is not acceptable.
2. Assess the child's present state of health

II. Intervention

- A. Complete parental consent process for every immunization to be administered
- B. Give parent vaccine information sheet (VIS): Provide in native language if available, ([www.cdc.gov/vaccines/pub/vis/default.htm](http://www.cdc.gov/vaccines/pub/vis/default.htm))
- C. For those immunizations not contraindicated, administer the immunization(s) according to **The Recommended Childhood Immunization Schedule** or **The Accelerated Immunization Schedule** ([www.cdc.gov/nip/recs/child-schedule-fourpages-jul-dec-rev.pdf](http://www.cdc.gov/nip/recs/child-schedule-fourpages-jul-dec-rev.pdf))
- D. Record the vaccines administered on an immunization record for the parent(s) to maintain. An immunization record is available at <http://www.immunize.org/catg.d/p2022b.pdf>.
- E. Recommend that child receiving the immunization receive acetaminophen 10-15 mg/kg/dose every 4 hours for 24 hours for those children with personal or family history of seizures. This regimen may be utilized prophylactically with all children. Inform parents that acetaminophen 10-15 mg/kg/dose every 4 hours may be used on an as needed basis for fever or discomfort following immunization.
- F. Patient Education
  1. Inform parents of the potential side effects of each immunization and how to avoid or treat them
  2. Inform parents that acetaminophen 10-15 mg/kg/dose every 4 hours may be used on an as needed basis for fever or discomfort following immunization
  3. Instruct parents in possible adverse effects, and when and where to seek care if they should occur
  4. Instruct parent when to seek the next immunization for the child
  5. Explain the importance of keeping a personal immunization record for every child

III. Referral

- A. Consult with a medical consultant for all children who have contraindications or precautions to immunization

- B. For children with illnesses significant enough to prohibit immunization administration, refer them to a primary health care provider
- 

**System: General and Supportive Care**

**Problem: Child Health Assessment (Growth and Developmental Screening)**

I. Assessment

A. Subjective

1. Present concerns of the parent(s)
2. Past Health History
  - a. Significant medical/developmental history since birth
    - 1) As noted by previous health care providers
    - 2) As noted by the parent(s)
  - b. Natal History if appropriate for age and concern
    - 1) Course of Pregnancy/prenatal exposures of infant
    - 2) Birth/intrapartum problems/birth weight
    - 3) Neonatal problems
3. Present health status
  - a. Activities of daily living
    - 1) Eating
    - 2) Sleeping
    - 3) Elimination
    - 4) Behavior and parental frustrations with behavior (mental health and substance abuse assessment for risk factors)
    - 5) Relationships with others (mental health assessment for risk factors)
  - b. Problems with vision/hearing
  - c. Safety risks
4. Family Situation and Stressors (mental health assessment for risk factors)

B. Objective

1. Growth Evaluation (Plot measurements on a growth grid)
  - a. Height
  - b. Weight
  - c. OFC if less than 2 years old
  - d. Body Mass Index
2. Developmental or Behavioral Assessment using a standardized assessment tool
3. Evaluation of Vision
  - a. Vision Screening for all children 3 years or older
  - b. Strabismus Screening for all children age 6 months or older
4. Evaluation of Hearing for all children age 3 years and older
5. Evaluation of Immunization Status
6. Evaluation for TB exposure risk

7. Evaluated necessity for lead screening
8. Dental Screening

## II. Intervention

- A. Patient Education
  1. Effects of transition on children and how to minimize its impact
  2. Parental teaching as indicated from the assessment
  3. Anticipatory Guidance
    - a. Expected developmental progress, appropriate stimulation, and parental response
    - b. Safety
- B. Provide immunizations Test for TB as indicated
- C. Connect to Child Profile if appropriate

## III. Referral

- A. To primary health care provider
    1. If caregiver has concerns not within the nurses scope of practice
    2. If child is not growing and gaining weight, or is below the 25% for weight
    3. If the OFC is outside the norms of the growth grid, If BMI is outside of norms for age. See addenda for BMI chart.
    4. If developmental or behavioral screening indicates questionable or abnormal findings
    5. If child fails the vision screening
    6. If the child fails the hearing screening
    7. If lead exposure history indicates potential exposure
  - B. To primary health care provider or regional network system for mental health services, if mental health or substance abuse screening identifies risk factors
  - C. To dentist, if abnormal dental screening
-

### **III. EMERGENCIES**

**System: Emergencies**

**Problem: Allergic Reaction/ Anaphylaxis**

I. Assessment

A. Subjective:

1. If time, quickly take note of situation: Know food allergy? Insect sting? Recent ingestions? Circumstances?

B. Objective:

Mild-Moderate Symptoms

1. Itching, swelling around injection or sting site
2. Hives may occur but do not progress to additional symptoms

Severe Symptoms

A client experiencing a severe reaction may not have all of these symptoms but will most likely have more than one

Anaphylaxis is a sudden or gradual onset of:

1. Generalized itching, redness or hives (urticaria)
2. Swelling of lips, face or throat (angioedema)
3. Severe bronchospasm (wheezing)
4. Shortness of breath
5. Shock
6. Abdominal cramping
7. Cardiovascular collapse

II. Intervention

A. Treatment:

1. Mild-Moderate Symptoms:

- a. Obtain vital signs
- b. Apply ice to injection site
- c. Monitor for worsening signs/ symptoms
- d. If severe symptoms develop, administer epinephrine and call 911 (see table below)

2. Severe Symptoms:

- a. Call 911 and get additional help
- b. Help assist client into a position of comfort
- c. Obtain vital signs including respiratory rate and O2 sat if available
- d. Administer epinephrine (see tables below)
- e. Repeat vital signs every 2-3 minutes until EMS arrives
- f. If severe symptoms persist and EMS has not arrived, give 2<sup>nd</sup> dose of epinephrine 5 minutes after the 1<sup>st</sup> dose
- g. If client becomes unresponsive, perform basic CPR and utilize AED protocols

	<b>Weight (lbs)</b>	<b>Dose Volume</b>	<b>Route</b>
Child	Under 20	0.05 ml	IM or SQ
	20-30	0.10 ml	IM or SQ
	30-40	0.15 ml	IM or SQ Or may administer Epi-Pen Junior
	40-50	0.20 ml	IM or SQ Or may administer Epi-Pen Junior
	50-60	0.25 ml	IM or SQ Or may administer Epi-Pen Junior
	Over 60	0.30 ml	IM or SQ Or may administer Adult Epi-Pen
Adult		0.30 – 0.50 ml	IM or SQ Or may administer Adult Epi-Pen

**B. Patient Education**

1. Educate regarding risk and need to follow-up with his or her primary care provider to determine whether future immunizations would be contraindicated
2. Discuss need for Epi-Pen with PCP
3. Discuss need to avoid allergen
4. Differentiating between a severe allergic reaction and anaphylaxis can be difficult and patients should err on the side of caution in terms of when to use epinephrine
5. All children with a history of anaphylaxis should be considered for treatment with epinephrine
6. Children with acute generalized urticaria following an insect sting should receive epinephrine to use after future stings, as the risk for anaphylaxis with future stings is approximately 10%
7. The epinephrine injection may be applied through clothing
8. Epinephrine should be kept away from extreme temperatures and direct sunlight to protect against drug degradation and the solution will not necessarily appear different after degradation has occurred
9. Possible transient adverse events associated with epinephrine administration include tremor, anxiety and palpitations
10. If applicable, a Vaccine Adverse Event Report (VAERS) should be completed by the immunization nurse and mailed to Communicable Disease Epidemiology and Immunization, Attention: VAERS Coordinator
11. Follow agency policy for reporting incidents or adverse events

**C. Follow-up:**

In 1-2 weeks as needed to reinforce patient education.

**III. Referral**

1. To the Emergency Room via EMS for serious reactions

**System: Emergencies**

**Problem: Cardio-Respiratory Arrest**

\* All team members will recertify in Infant and Adult CPR on a bi-yearly basis

I. Assessment

- A. Establish unresponsiveness by shaking and shouting
- B. Establish breathlessness
- C. Establish pulselessness by feeling carotid pulse on near side of neck or bronchial pulse on near arm in children for 5-10 seconds

II. Intervention

- A. Treatment: (2005 AHA Guidelines) see addendum

III. Referral

- A. To the emergency room via EMS
- 

**System: Emergencies**

**Problem: Choking**

I. Assessment

- 1. Determine if the person can speak, cry or cough

II. Intervention

A. Treatment

- 1. After establishing airway is blocked initiate first aid for choking:

Infant: Prone position in arms with head lower than buttock. Administer 5 back blows.  
Turn over administer 5 chest thrusts. Repeat cycle.

Child/Adolescent: Perform abdominal thrusts (Heimlich maneuver) repeatedly. May  
Perform chest thrusts for obese child.

- 2. Continue first aid until foreign object is expelled or person becomes unresponsive. If becomes unresponsive perform CPR(see AHA Guidelines in Addendum). If an object is seen in the throat or mouth remove it.

B. Patient education: Safety measures to avoid choking

III. Referral:

- A. To the emergency room or PCP as indicated.
- 

**System: Emergencies**

**Problem: Seizure**

I. Assessment

A. Subjective:

1. Child or family history of seizure disorder
2. Usual anticonvulsants and compliance
3. Any recent illness or fever
4. Last alcohol or drug use or history of accidental ingestion
5. Recent head trauma or accident
6. Recently hit or struck

B. Objective:

1. During the seizure:
  - a. Describe seizure activity if observed (events preceding onset, duration of seizure, focal or generalized movement, tonic or clonic, progress of seizure activity)
  - b. Check for trauma
  - c. Signs of cardiopulmonary arrest
2. Following the seizure:
  - a. Evaluate for concurrent illness, and mental status

II. Intervention

A. Maintain airway if possible

1. Turn patient to lie on side to avoid aspiration
2. Remove any food or foreign material from mouth, if possible, to prevent aspiration

B. Avoid injury

1. Move furniture or objects on which that the patient could harm him/herself

C. Call 911

- D. Check vital signs at least every 10 minutes until patient completely alert or medic I arrives

III. Patient education:

- A. Review importance of taking seizure medication, if appropriate

IV. Follow-up:

- A. After patient returns from clinic/hospital

V. Referral

A. Call 911 for an ambulance to transport patient to the emergency room

1. First time seizure
2. Any history of trauma
3. Temperature  $\geq 100.5$  R or concurrent illness
4. In patients with known seizure disorder, if:
  - a. Seizure is protracted (last more than 5 minutes)
  - b. Breath sounds are absent
  - c. Patient is cyanotic
  - d. History of trauma
  - e. Fever or concurrent illness

- B. Same day appointment for patients with known seizure disorder observed to have their seizure without any of the above factors.





**System:** Emergencies

**Problem:** Overdose/Poison Ingestion, Accidental or Intentional

I. Assessment

A. Subjective:

1. Substance and amount taken
  - a. Brand name and ingredients listed on label, if possible
  - b. Estimate amount taken, i.e., original amount, how much is left
2. Time taken
3. Accidental or intentional

B. Objective:

1. General appearance
2. Mental status (alert, drowsy, unresponsive)
3. BP, HR, RR

II. Intervention

A. Treatment:

1. If altered status, call 911 immediately for an ambulance to transport patient to the emergency room
2. If not altered call Poison Control for advise regarding approach to intervention, 1-800-222-1222
3. Monitor vital signs q 5 min
4. Send any medication or possible poison with the person to the emergency room

B. Patient Education: safety precautions in the home, and avoiding poisons

III Referral

A. Follow up as indicated by poison control.

B. Send any medication or poison with the EMS to the hospital

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## **IV. TRAUMA**

**System: Trauma**  
**Problem: Bites-Animal and Human**

I. Assessment

A. Subjective:

1. Determine how bite occurred- provoked or spontaneous
2. Type of animal, whereabouts of animal
3. History of tetanus immunization
4. When did bite occur

B. Objective:

1. Location, size, severity of bite, i.e., is skin broken, how deep is wound, is it actively bleeding
2. Temperature
3. Any sign of infection (swelling, redness, heat, drainage)

II. Intervention

A. Treatment:

1. Irrigate wound with water and wash surrounding area with soap and water
2. Ice pack or cold compress to reduce swelling for first 24 hours
3. Report incident to Animal Control

B. Patient Education:

1. Stress need to observe closely for signs of infection

C. Follow-up:

1. Within 24-48 hours

III. Referral

- A. All bites need to be evaluated by PCP same day
  - B. All facial, hand or foot wounds need to be evaluated by PCP same day
  - C. If any sign of infection-redness, swelling, drainage, or fever, patient needs to be evaluated by PCP same day
  - D. If suturing required, needs to be done within 10-12 hours of injury
  - E. If not up-to-date with tetanus immunizations (none within 5 years), needs tetanus booster within 72 hours  
If no previous tetanus immunization, refer immediately
  - F. If suspect rabid animal, refer immediately
  - G. If massive damage or uncontrolled bleeding, call 911 for EMS transport to emergency room immediately
-

**Problem: Bites-Insect**

**I. Assessment**

**A. Subjective:**

1. Location of bite
2. Type of insect
3. When bite occurred and the onset of symptoms
4. Presence of generalized symptoms: hives, generalized swelling, facial swelling, difficulty breathing, generalized itching
5. Any history of allergic reaction to insect bites or stings-describe reaction

**B. Objective:**

1. Location, number, size
2. Presence of swelling, redness
3. Temperature, BP, HR, RR
4. Respiratory distress

**II. Intervention**

**A. Treatment:**

1. Immediate
  - a. Remove stinger in such a way so as not to inject more venom (Don't squeeze - flick out with fingernail)
  - b. Meat tenderizer or baking soda paste to the sting site
  - c. If develops signs of anaphylaxis initiate anaphylaxis protocol, under Emergencies.
2. 24-48 hours after the sting (may have redness and swelling around the sting site but should begin to decrease after 48 hours).
  - a. Apply cool compress/ice pack as needed for swelling and itching.
  - b. Calamine lotion to decrease itching

**B. Patient Education:**

1. Stress observation for signs of infection. The usual onset of infection is most likely to occur after the venom reaction subsides

**C. Follow-up:**

1. Within 24-48 hours

**III. Referral**

- A. Call 911 for symptoms of generalized allergic reaction
  - B. Any signs of secondary infection or any significant discomfort should be evaluated by PCP same day
- 

**System: Trauma**

**Problem: Head Injury**

## I. Assessment

### A. Subjective:

1. Mechanism and time of injury (accidental vs intentional)
2. Loss of consciousness - length of time
3. Nausea or vomiting
4. Vertigo, tinnitus, or light-headedness
5. Amnesia
6. Seizure activity
7. Headache
8. Mood
9. Drowsiness or lethargy

### B. Objective

1. Assess airway and cardio-respiratory status
2. Examination of scalp integrity
3. Examination of skull for contusions, hematomas, depressions, fractures
4. Vital Signs
5. OFC and fontanelle status in infants
6. Observe for CSF from ears or nose, hemotympanum
7. Glasgow Coma Scale
8. Neurological functioning - arousability, pupillary light reflexes, extraocular movements, extremity movements

## II. Intervention

### A. Treatment

1. Assure airway and cardio-respiratory function. Initiate CPR and Call 911 if unstable
2. Comfort measures
3. Acetaminophen or Ibuprophen dose per weight for headache (see addendum)

### B. Patient Education

1. Educate the observer or parent of a child with a mild head injury (no fracture, no loss of consciousness or focal signs) in the signs and symptoms for which they should monitor, the frequency, and what to do if they develop

### C. Follow-up

1. Within 24 hours

## III. Referral

### A. Immediate Referral for Emergency Care

1. For a head injured patient when any of the following is present:
  - a. Impaired consciousness (Glasgow Coma Score <15/15) at any time since injury
  - b. Amnesia for the incident or subsequent events
  - c. Neurological symptoms, such as:
    - severe and persistent headache
    - nausea and vomiting

- irritability or altered behavior
  - seizure
- d. Clinical evidence of a skull fracture (e.g., cerebrospinal fluid [CSF] leak, periorbital Hematoma)
- e. Significant extracranial injuries
- f. A mechanism of injury suggesting:
- a high impact (e.g., road traffic accident, fall from height)
  - possible penetrating brain injury
  - possible non-accidental injury (in a child)
- g. Continuing uncertainty about the diagnosis after first assessment
- h. Medical co-morbidity (e.g., anticoagulant use, alcohol abuse)
- i. Adverse social factors (e.g., no-one able to supervise the patient at home)
2. Immediate Referral for Emergency Care if a child with a minor head injury develops any of the following signs or symptoms:
- Altered consciousness (Change in Glasgow Coma Scale) see Addendum
  - Worsening headache
  - Increasing nausea and vomiting
  - Irritability or altered behavior
  - Seizure
  - Development of focal neurologic signs (difficulty arousing patient, unequal pupils, unequal extraocular muscle movements, unequal use of extremities)
- B. Within 24 Hours
- If injury was the result of a non-accidental cause, refer to Child Protective Services.
- 

**System: Trauma**

**Problem: Dental Trauma**

I. Assessment

A. Subjective:

1. Mechanism of injury (Accidental verses Non-accidental)
2. Loss of consciousness
3. History of a bleeding disorder
4. Current medications

B. Objective

1. Lacerations, contusions, abrasions on face or oral area
2. ROM of jaw
3. Lacerations or bleeding within the oral cavity
4. Condition of teeth and gums (fractures of teeth, evulsions of teeth, contusions of gums, hemorrhage at gingival margin, stability and position of teeth, status of deciduous verses permanent teeth)
5. Presence and condition of oral appliances

II. Intervention

A. Treatment

1. Lacerated Tongue, Lip or Cheek
  - a. Apply gentle pressure with a gauze or clean cloth for 15 minutes
  - b. Oral rinses following food or drink
2. Broken Braces or Wires
  - a. If a wire is stuck in the gum, cheek, or tongue, **do not** remove
  - b. If a broken appliance can be removed easily, take it out
  - c. If it does not come out, cover any sharp edges with dental wax, cotton balls, gauze, or chewing gum
3. Bleeding After a Deciduous Tooth Falls Out
  - a. Fold or pack a gauze or clean cloth over the area
  - b. Have the child bite on the gauze with pressure for 15 minutes
4. Evulsion of a Tooth
  - a. Find the tooth
  - b. Handle the tooth by the top or crown, not by the root end
  - c. May rinse the tooth but **do not scrub or handle the tooth unnecessarily**
  - d. Try to reinsert the tooth back into its socket
  - e. Have the child hold the tooth in place by biting down on a piece of gauze or cloth.
  - f. If the tooth cannot be reinserted, transport the tooth in a cup of milk
5. Fracture
  - a. Rinse dirt from injured area with warm water
  - b. Place cold compresses over the face in the area of injury
  - c. Locate and save the broken tooth fragments
6. Possible Broken Jaw
  - a. If suspected, immobilize the jaw with a towel, tie, or handkerchief
  - b. Apply ice to decrease swelling

B. Patient Education

1. Rinse mouth with salt water after food or drink for any oral lesion or wound
2. Following any trauma, monitor teeth and gums over the next few months for a change in color.  
Seek dental care if this occurs.
3. The use of mouth guards during sports activities

C. Follow-up



1. Within 24 hours

### III. Referral

#### A. Immediate Referral for Emergency Dental/Oral Care

1. Possible Broken Jaw
2. Loosening, Subluxation or Luxation of Teeth
3. Evulsion of a Tooth (**Time is critical!**)
4. Fractured Tooth
5. Penetrating Oral Wound
6. Persistent Bleeding
7. Loss of Consciousness

#### B. Within 24 Hours

1. Broken Oral Appliance

#### C. For Non-accidental Trauma

1. In a child, evaluate for the necessity for a Child Protective Service referral
  2. In adults, evaluate for domestic violence and the need for a safety plan and/or a referral for services
- 

**System: Trauma**

**Problem: Sprains/Strains/Fractures**

### I. Assessment

#### A. Subjective:

1. Mechanism and time of injury
2. Who was present at time of injury

#### B. Objective:

1. Temperature
2. Description of injury, especially noting presence or absence of deformity, crepitus, swelling, ecchymosis or signs of secondary infection, active or passive range of motion

### II. Intervention

#### A. Treatment:

1. May offer Tylenol dose appropriate for age/weight. For children without signs of viral illness consider using an anti-inflammatory/analgesic such as ASA or Ibuprofen.
2. Stabilize injury with splint, sling or ace wrap prior to referral if appropriate
3. Consider no weight bearing if injury is significant

#### B. Patient Education:

1. Instruct to ice and elevate injury to minimize swelling

#### C. Follow-up:

1. Reevaluate injury within 24-48 hours if no referral was made

### III. Referral

- A. If deformity, crepitus, swelling ecchymosis or signs of secondary infection are present, refer to clinic or emergency room for evaluation the same day.
- B. If pain persists or if physical findings develop after 24-48 hours, refer to a clinic or emergency room.
- C. Report to CPS if abuse suspected (see child abuse section below)

**System: Trauma**

**Problem: Burns**

I Assessment:

A. Subjective:

1. Date, time and mechanism of injury
2. Last Tetanus immunization

B. Objective:

1. Temperature
2. Blood Pressure
3. Pulse
4. Respiration
5. Describe burn, including degree
6. Determine body surface area affected, may estimate small burns by approximating patient's palm to equal 1% of his BSA

II Intervention:

A. Treatment

1. If burn is significant, may require evaluation at health care facility or emergency department
2. If manageable at home:
  - A. Clean and debride burn
  - B. Apply Silvadine 1% or bacitracin ointment and dressing to burn
  - C. DTor Tdap 0.5cc IM if no immunization in > 5 years
  - D. Tylenol 325 mg I-II PO Q 6 hours PRN pain

B. Patient Education: Safety & burn avoidance

C Follow-up

1. Daily for dressing changes

III Referral

To clinic or Emergency room same day appointment

---

**System: Trauma**

**Problem: Child Abuse/Sexual Abuse**

I. Assessment

A. Subjective:

1. History of type of abuse and who is abusing the child

2. How long abuse has been occurring

B. Objective:

1. Any bruises, burns or other signs of abuse

II. Intervention

A. Treatment:

B. Patient Education:

1. Information on parental education and support groups

III. Referral

A. Report to CPS and law enforcement as required by law and for child's safety

B. If sexual abuse, refer to Sexual Assault Center

C. If burn, suspected fracture or other suspected serious injury, child should be sent to the ER or medical clinic the same day

IV. Follow-up

A. Within 48-72 hours

---

## **V. HEENT**

**System:** HEENT  
**Problem:** Earache

I. Assessment

A. Subjective:

1. Onset, duration
2. Associated symptoms: fever, URI, symptoms, lethargy, listlessness, irritability, mental status, neck pain or stiffness
3. Drainage from ear
4. History of trauma
5. History of frequent ear infections and past treatments

B. Objective:

1. Temperature
2. Weight
3. Mental status

II. Intervention

A. Treatment:

1. May offer Acetaminophen (not aspirin) dose appropriate weight (See Addendum)

B. Patient Education:

1. Elevate head
2. Encourage fluids,
3. Warm compresses to affected ear
4. Do not smoke around child
5. Signs and symptoms of worsening illness

III. Referral

- A. Need to be seen in clinic if no improvement in symptoms within 24 hours, sooner if severe pain or high fever (see fever protocol).
  - B. Changes in mental status make an immediate referral
- 

**System:** HEENT  
**Problem:** Pharyngitis

I. Assessment

A. Subjective:

1. Duration and severity of sore throat
2. Associated symptoms

B. Objective:

**\*\*\*Do not examine mouth or throat if drooling, not able to control saliva, or having any type of respiratory distress.\*\*\***

1. Temperature
2. Note presence or absence of erythema or exudate in pharynx and enlargement of tonsils
3. Note presence or absence of cervical adenopathy
4. Evaluate for systemic symptoms (rash, vomiting, diarrhea, abdominal pain, etc)

II. Intervention

- A. Treatment:
  - 1. May offer symptomatic relief with weight appropriate Acetaminophen dose (See addendum)
- B. Patient Education:
  - 1. Saline gargles if child old enough to gargle
  - 2. Increase fluid intake
  - 3. Do not smoke around child
  - 4. Discuss measures for preventing transmission
  - 5. Signs and symptoms of worsening illness

### III. Referral

- A. Drooling, respiratory difficulty, high fever and appearing toxic, call 911
  - B. If significant unilateral tonsillar enlargement, deviation of uvula, refer to clinic same day to R/O peritonsillar abscess
  - C. If temperature 102°, refer to clinic same day for evaluation
  - D. If symptoms persist refer to clinic for further evaluation
- 

**System:** HEENT

**Problem:** Dental Complaints

#### I. Assessment

- A. Subjective:
  - 1. Nature and duration of dental problem
  - 2. Usual dental hygiene practices
  - 3. Last dental care
- B. Objective:
  - 1. Temperature
  - 2. Inspect oropharynx
  - 3. Note presence or absence of facial swelling
  - 4. Examine for cervical adenopathy

#### II. Intervention

- A. Treatment:
  - 1. For toothache, may give Acetaminophen dose per attached dosing sheet
  - 2. Supply toothbrush
- B. Patient Education:
  - 1. Instruct in dental hygiene

#### III. Referral

- A. If temperature 102° F, signs of dental abscess, facial swelling, or severe toothache present, refer same day to dental clinic. If abscess suspected and unable to get same day dental appointment, refer to medical clinic or emergency room so that antibiotics may be started.
  - B. All other dental complaints referred selectively to free or low cost dental clinics in the area.
- 

**System:** HEENT

**Problem: Eye Complaints**

**I. Assessment**

**A. Subjective:**

1. Nature of complaint
2. Does patient normally wear corrective lenses including contact lenses?
3. History of trauma

**B. Objective:**

1. Visual acuity OS, OD, and OU by Snellen chart
2. Inspect eye lids, lashes
3. Pupil size and reactivity, lucency of the anterior chamber
4. Inspect for conjunctival injection, tearing, discharge, foreign body, or signs of trauma
5. Temperature
6. Signs and symptoms of systemic illness

**II. Intervention**

**A. Treatment:**

1. If stye is seen without any other abnormality, may recommend hot pack QID

**B. Patient Education:**

1. Based on assessment
2. Signs and symptoms of worsening illness

**C. Follow-up:**

1. In one week to check condition of eye

**III. Referral**

- A. If visual acuity less than 20/40 and patient has no other complaints or abnormalities, refer for glasses
  - B. If there are signs of injury, photophobia, abnormal pupil reactivity, eye pain or foreign body, refer to medical clinic
  - C. If there are signs of conjunctivitis, refer to medical clinic
  - D. If stye is unresolved after hot packing one week, refer to clinic
  - E. If any redness or discoloration of skin around eye excessive discharge or if fever present, refer to same day clinic appointment or urgent care
-

I. Assessment

A. Subjective:

1. Any child or family history of unusual bleeding or bruising
2. Recent trauma
3. History of kidney problems

B. Objective:

1. BP, HR
2. Actively bleeding
3. Unusual bruising present

II. Intervention

A. Treatment:

1. Have patient sit erect
2. Grasp nose firmly between thumb and forefinger for at least 5 minutes
3. May use small ice pack at bridge of nose

B. Patient education:

1. Avoid any trauma to nose, including nose picking
2. Maintain tissue hydration (humidifier at night, encourage fluids)
3. Promote nasal mucosa healing by applying an emollient such as Bacitracin Ointment

C. Follow-up:

1. PRN

III. Referral

A. To clinic or emergency room if:

1. Unable to stop bleeding with above measures
  2. Any history of trauma
  3. Any history of unusual bleeding or bleeding disorder
  4. Recurrent nosebleed
  5. Elevated BP
-



## **VI. HEMATOLOGY**

**System: Hematologic**

**Problem: Anemia**

I. Assessment:

A. Subjective:

1. History of maternal prenatal anemia (if 15 months or younger)
2. Presence of Pica
3. Presence of pallor or fatigue or irritability
4. History of anemia or hemoglobinopathy
5. History of significant blood loss
6. History of chronic illness
7. Diet History significant for a lack of iron-rich foods

B. Objective:

1. Hemoglobin/Hematocrit (see addendum)
2. Growth assessment
3. Developmental progress
4. Blood Pressure

II. Intervention:

A. Treatment:

1. Elemental Iron (ferrous sulfate) supplementation 4-6 mg/kg/day in three divided doses

B. Patient Education:

1. Pair iron administration with the administration of vitamin C rich foods such as citrus juices
2. Avoid milk with the administration of iron
3. Potential for changes in stools i.e. darker appearance, possible constipation or diarrhea
4. Avoid temporary staining of teeth by administering in the back of the mouth. Clean teeth with brush or cloth to remove stain if present
5. Nutrition education

C. Follow-up:

1. Repeat Hemoglobin/Hematocrit in one month if patient is unable to comply with visit to PCP

D. Referral

1. Primary Care Provider for follow-up visit and continuing care (send laboratory levels and treatment plan)
  2. WIC
  3. Nutritionist
-

## **VII. RESPIRATORY**

**System: Respiratory**

**Problem: Acute Respiratory Infection**

I. Assessment

A Subjective:

1. URI symptoms, including nasal congestion, earache, sore throat.
2. Symptoms of cough, sputum production, fever, chills, difficulty breathing, feeding or sleeping difficulty
3. Onset and duration of illness
4. Other family members ill
5. Past history of respiratory complaints (e.g., any history of asthma, pneumonia, cystic fibrosis, TB exposure-see screening questions in addendum
6. Ability to hold down fluids

B. Objective:

1. Temperature, RR, HR
2. Any respiratory difficulty (grunting, nasal flaring, or difficulty feeding in infants, intercostal retractions, using accessory muscles, difficulty speaking)
3. Inspect nasal mucosa and pharynx (swollen? Pus or exudate?)
4. Auscultate lungs (wheezes? coarse crackles?)
5. Peak flow if appropriate age
6. Level of alertness

II. Intervention

A. Treatment:

1. May offer:
  - a. Tylenol dose appropriate age weight if discomfort prohibits ADL's.
  - b. Salt and soda nosedrops to be used prn (see addendum)

B. Patient Education:

1. Elevate head of bed
2. Increase clear fluid intake
3. Do not smoke around child
4. Cool mist vaporizer (or open window).
5. Review with family symptoms needing further evaluation.

III. Referral

A. Refer to clinic or ER same day:

1. For respiratory distress, or if child looks ill or toxic
2. If RR > 28, temperature > 102° F or persistent temperature (>48 hours), abnormal breath sounds, or if patient complains of earache, severe sore throat or persistent/sore throat (>48 hours), history of exposure to strep throat, thick purulent (yellow or green) or bloody discharge from nose, or wheezing

- The child with rapid onset of high fever, respiratory distress, drooling, loss of phonation or difficulty swallowing should be sent to the emergency room immediately to rule out epiglottitis. **This is an emergency.**

---

**System: Respiratory**

**Problem: Asthma/Reactive Airway Disease**

**I. Assessment**

**A. Subjective:**

1. Symptoms of cough, wheeze, sputum production, difficulty breathing.
2. Fever, chills
3. Onset and duration of illness
4. URI symptoms, including nasal congestion, earache, sore throat.
5. Past history of asthma and treatment
  - a. Any ER visits or hospitalizations for asthma
  - b. Normal peak flow if known
  - c. How often are 'rescue meds' used?
  - d. How often are prn meds used?
6. Difficulty feeding or sleeping

**B. Objective:**

1. Temperature, RR, HR
2. Any respiratory difficulty (grunting, nasal flaring, or difficulty feeding in infants, intercostals retractions, using accessory muscles, difficulty speaking).
3. Auscultate lungs (wheezes? Crackles?).
4. Peak flow if appropriate age
5. Level of alertness

**II. Intervention**

**A. Treatment:**

1. Assist client with use of own inhaled short acting beta-agonist (Proventil, Ventolin): puffs by MDI or single nebulizer treatment
2. Repeat assessment 20 minutes after treatment

**B. Patient Education:**

1. Do not smoke around child.
2. Limit exposure to pets, particularly in sleeping areas.
3. Dust living area frequently.
4. Keep sleeping area as dust free as possible.
  - a. Dust frequently.
  - b. Wash sheets weekly in hot water if possible.
5. Treat symptoms early to decrease severity of asthma attack.
6. Emphasize need to see primary care medical provider on regular basis, not just with exacerbations.
7. Proper use of inhaler.

**C. Follow-up:**

1. Within 1-2 days if current symptoms are mild, client has appropriate medications and referral not indicated.

**III. Referral**

**A. Refer to clinic or ER immediately:**

1. Respiratory distress (RR>10 breaths above normal for age, dusky or blue lips, grunting, flaring, substernal retractions of use of accessory muscles).
2. Child looks ill or toxic.
3. Peak flow less than 50% of predicted for height (see addendum)
4. Unable to speak in full sentences

- B. Refer to clinical or ER same day:
1. Persistent wheeze after treatment or client does not have appropriate medications.
  2. Yellow or green sputum
  3. Temperature >102 or persistent temperature (>48 hours)
  4. Peak flow 50-80% of predicted for height (see addendum)
  5. History of severe asthma exacerbation requiring hospitalization or intubation
-

## **VIII. GASTROINTESTINAL**

**System: Gastrointestinal**  
**Problem: Abdominal Pain**

I. Assessment

A. Subjective:

1. Location, duration, nature and severity of pain
2. Associated nausea, vomiting, diarrhea, constipation, fever, chills, GI bleeding, dysuria or urinary frequency, headache, sore throat, cough or URI symptoms
3. Any history of trauma
4. For women and girls of childbearing age:
  - Last menstrual period
  - Sexually active
  - Symptoms of pregnancy
  - Birth control method
  - Vaginal discharge or bleeding
  - Dyspareunia

B. Objective:

1. Temperature, postural BP and HR
2. Bowel tones.
3. State of hydration (See Addendum)

II. Intervention

A. Treatment:

1. If not vomiting, may offer Tylenol

B. Patient Education:

1. Clear liquid diet
2. Try warm bath or heat to abdomen x 20-30 minutes

C. Follow-up:

1. Within 24 hours, or sooner, if symptoms worsen

III. Referral

A. Refer to clinic or emergency room for evaluation.

1. Emergent Referral

- a. Recent significant injury with rapid onset of symptoms
- b. Discolored, painful scrotum or umbilical hernia
- c. Passage of "currant jelly stools" (i.e., blood clot)
- d. Shock or change in mental status
- e. Tense, rigid abdomen

2. Urgent Referral

The patient reports moderate to severe pain (especially if the pain is interfering with the child's activity or is causing the child to cry), history of trauma, urinary symptoms, persistent severe cough with fever, symptoms of pelvic inflammatory disease, patient is known or suspected to be pregnant, absent or hypoactive bowel sounds, temperature  $>102^{\circ}$  F or persistent fever  $>48$  hours, bloody stool or, a fall in diastolic BP or a rise in HR  $>10$  points between lying and standing positions, painful or discolored scrotum or hernia.

- B. All other patients should be referred for medical evaluation if their symptoms do not resolve completely within 24 hours.
-



**System: Gastrointestinal**  
**Problems: Diarrhea**

I. Assessment

A. Subjective:

1. Onset, duration, number of stools, consistency, color
2. Presence or absence of blood, pus, or mucous in stool
3. Associated abdominal pain, fever or other symptoms, cramps
4. Fluid and food intake: anorexia; how much and type (fruit juices or high sugar content drinks)? And output: urinating?
5. Behavior or activity
6. Recent travel, change in diet, or exposure to people with similar symptoms
7. Most recent weight if no documented weight, or notice of weight loss
8. If bottle fed assess hygiene and bottle washing practices
9. Exposure to someone with similar illness
10. Exposure to antibiotic, allergen or potential poison
11. Emotional status or stress
12. GI History

B. Objective:

1. Temperature, weight, postural BP and HR
2. Bowel tones
3. Hydration Status (See Addendum)

II. Intervention

A. Treatment:

1. Comfort
  - a. Maintain health of skin in the diaper area by using a barrier cream or ointment and changing frequently.
  - b. Sitz baths for irritated rectum.
  - c. Sucking stimulates the gastrocolic reflex so pacifiers may stimulate diarrhea and/or abdominal cramping.
2. Rehydration Therapy - administered in equal small amounts
  - a. Mild Dehydration - 50 ml/kg Oral Rehydration Solution (ORS) given within 4 hours
  - b. Moderate Dehydration - 100 ml/kg ORS given within 6 hours
3. Hydration Maintenance - administered in equal small amounts
  - a. Mild diarrhea - 100 ml/kg/24 hours until the diarrhea stops.
  - b. Moderate diarrhea - intake should be equal to output of diarrhea. If unable to measure, calculate intake at 10-15 ml/kg/hr OR

B. Patient Education:

1. Infants:
  - a. Breastfeeding: continue breastfeeding and may supplement with oral rehydration solution (ORS) (Pedialyte). If the child is eating solid foods introduce usual diet
  - b. Formula: Continue formula feeding and supplement with ORS. Encourage parent to consult provider for any formula changes. May continue to feed solid foods if they have been introduced and the child has an appetite for them.
  - c. With vomiting give 5 ml of water, formula or ORS every 5 minutes

2. Children
  - a. Preferably use ORS (Pedialyte) to maintain hydration. If unavailable, may use flat 7-Up or ginger ale, weak tea or broth
  - b. May eat foods as tolerated. The general principles for foods are to provide those that will not stimulate diarrhea e.g., those low in fats, low in sugars and non-irritating. Examples of such foods are plain noodles, boiled chicken, boiled potatoes, carrots, bland crackers. Also avoid those foods which may be high in lactose such as dairy products if the child appears to have a secondary lactose intolerance. Gradually add foods over the next week resuming the child's normal diet.

### III. Referral

- A. To clinic or emergency room same day if:
    1. Abdominal pain, listlessness or irritable
    2. Blood or mucous in stools, or if stools black or white
    3. Temperature >102 or persistent fever > 48 hours
    5. Systolic BP falls by more than 10 mm Hg or HR rises more than 10 points between lying and standing position
    6. Patient is dehydrated or unable to keep fluids down
    7. If diarrhea persists > 48 hours despite diarrhea diet
- 

**System: Gastrointestinal**

**Problem: Constipation**

### I. Assessment

- A. Subjective:
  1. Frequency, appearance, consistency of stools
  2. Presence or absence of blood in stool
  3. Usual bowel pattern
  4. Straining intermittent or constant
  5. Diet and fluid intake
  6. Availability of bathrooms, facilities, and privacy
  7. Associated abdominal pain, fever, nausea, vomiting
  8. Rectal pain or crying with defecation, use of laxative, enema and other medication
  9. Stool leakage, streaking of underwear
  10. Recent history of dehydration
- B. Objective:
  1. Temperature, weight
  2. Auscultation bowel tones
  3. External rectal exam, fissures
  4. Palpation of abdomen

### II. Intervention

- A. Treatment:
  1. Sitz baths for rectal tear or fissure
- B. Patient Education:
  1. Infants:
    - a. Exclusively breast-fed babies will often have a soft stool only every 3-7 days
    - b. Babies normally strain when passing a bowel movement

- c. Do not use laxatives, enemas or suppositories
  - d. Increase water intake
  - e. Ensure correct mixing of formula. Incorrect formula concentration may cause constipation
  - f. May give prune, apple or apricot juice in small amounts
2. Children:
    - a. Increase fluid intake, especially water and fruit juice
    - b. Decrease milk intake to one pint per day
    - c. Eat cooked fruits, especially prunes, apricots and raisins
    - d. Include bran cereal, vegetables and salads in diet
  3. Methods for promoting good bowel health in children who have experienced constipation and secondary rectal fissure/tear to avoid encopresis. Consult with primary care provider whether a stool softener or lubricant might be appropriate.
  4. Follow-up: Within 2-3 days

### III. Referral

- A. To clinic or emergency room same day if:
    1. Bowel tones absent or hyperactive
    2. Associated abdominal pain, nausea or vomiting
    3. Fever
    4. No results within 2-3 days after above changes in diet
    5. Blood in stools
  
  - B. Refer to primary health care provider if constipation is a recurrent or chronic problem or if signs of encopresis exist.
- 

**System: Gastrointestinal**

**Problem: Nausea and Vomiting**

#### I. Assessment

- A. Subjective:
  1. Duration, frequency and appearance of emesis. Projectile?
  2. Presence or absence of bloody or coffee ground emesis.
  3. Associated abdominal pain, diarrhea, fever or chills
  4. Food and fluid intake; nausea present
  5. Number of wet diapers
  6. Behavior or activity
  7. Head trauma; abdominal trauma or other injury
  8. Assess for poisonings
  9. Exposure to similar illness
  10. Emotional status, stress
  11. LMP if applicable
  
- B. Objective:
  1. Vital signs
  2. Check weight
  3. Assess feeding techniques

4. Mucous membrane--dry or moist
5. Bowel tones
6. Hydration status (See Addendum)

## II. Intervention

### A. Treatment:

1. Rehydration Therapy - administered in equal small amounts; avoid large gulps or boluses to avoid subsequent vomiting
  - a. Mild Dehydration - 50 ml/kg Oral Rehydration Solution (ORS) given within 4 hours
  - b. Moderate Dehydration - 100 ml/kg ORS given within 6 hours
2. Hydration Maintenance - administered in equal small amounts; avoid large gulps or boluses to avoid subsequent vomiting
  - a. Mild diarrhea - 100 ml/kg/24 hours until the diarrhea stops
  - b. Moderate diarrhea - intake should be equal to output of diarrhea. If unable to measure, calculate intake at 10-15 ml/kg/hr ORS
3. Introduce food in small amounts as tolerated

### B. Patient Education:

1. Stress need for adequate fluid intake with frequent small amounts of clear liquid-- Pedialyte in young children if possible
2. Review feeding technique

### C. Follow-up:

1. Within 24 hours

## III. Referral

- A. Infant under 6 months of age with any s/s of dehydration or a child with projectile vomiting
  - B. If child has a history of head trauma, bloody or coffee ground emesis, if there is associated abdominal pain, if temperature is greater than 100°F, if mucous membranes are dry or no wet diapers for greater than 6 hours, or if bowel tones are absent or hyperactive or vomiting more than 12 hours, refer to a medical clinic or emergency room for evaluation the same day.
  - C. If vomiting continues for more than 24 hours, refer to a medical clinic
  - D. Refer to poison control if needed
-

**System: GI**  
**Problem: Encopresis**

I. Assessment

A. Subjective:

1. Stool history: stooling pattern, size, consistency, hx of bowel incontinence or stained underwear, laxative use, presence of abdominal pain or crying with BMs
2. Diet: especially servings of fiber, servings of dairy per day, appetite
3. Medical history: hx of anal fissures, presence of known bowel disease
4. Behaviors consistent with stool holding: sudden stillness during play; child attempting to run or hide to a private space; crossing legs or shifting from one foot to another while attempting to hold in stool; verbalization of not wanting to have a bowel movement
5. Toilet training history; age when fully trained; general ease of training
6. Hx of urinary frequency or urinary tract infections
7. Presence of family adjustments or situational stress
8. Hx of sexual or physical abuse
9. Hx or developmental delay or neurological issues

B. Objective:

1. Presence of body odor
2. Abdominal distention
3. Abdominal tenderness to palpation

II. Intervention

A. Refer to PCP for evaluation

1. If the child is constipated as a result of chronic holding of stool, a bowel cleanout is often necessary, which is followed by several months of laxative use to ease the passage of stools while the bowel returns to its normal function

B. If the issue is long-standing and not improving despite education and medical treatment, referral to a specialist or a counselor may be warranted

III. Education

A. Encopresis is a challenging condition with physical and emotional facets. Setbacks are common.

B. Assure the family that accidents/stained underwear are not voluntary on the child's part; it is a result of the bowel being stretched and stool from up higher in the GI tract is leaking around the hard stool. This will improve as the constipation and holding behaviors improve. Do not punish the child for it.

C. Discuss medications prescribed: how they work, why they are on them, importance of adhering to the treatment plan

D. Encourage the child to take responsibility for his or her toilet habits. They can be involved (as is age appropriate) in clean-ups. A matter of fact, non-punitive approach is best.

E. Once a diagnosis is established, work with the family to establish a behavioral plan for developing regular toilet habits:

1. Establish a schedule for the child to attempt a BM on the toilet (after meals is often best).

One example, setting an initial goal for the child to sit on the toilet 3-5 times a day, even if only for 30 seconds at first.

2. Offer rewards or incentives for sitting on the toilet or for BM's in the "Pull Up" or diaper if

they are not fully trained

3. Offer praise for BM's in the toilet and for attempts to sit at the toilet
4. Some kids respond well to a behavior chart so they can visually see their progress

F. Education regarding fiber in the diet

1. 16-24 ounces of milk is generally enough
- 2.. Discuss foods high in fiber: whole grains, fruits, vegetables, popcorn
3. 4-8 ounces of juice or water added to the daily diet is helpful (pear or prune juice are particularly good)
4. How to read a food label

## **IX. GENITO-URINARY**

**System: Genito-Urinary**  
**Problem: Contraception**

I. Assessment

A. Subjective:

1. Last menstrual period 1st day, normal menses), irregular bleeding
2. Past contraception use
3. Sexual and pregnancy history
4. Smoking
5. Possible medication interactions
6. Cultural religious preference

B. Objective:

1. BP
2. Weight

II. Intervention

A. Treatment:

1. May dispense condoms and contraceptive foam (max. 45grms)

B. Patient education:

1. Explain how pregnancy occurs
2. Describe available methods of contraception, including risks and benefits
3. Describe how to use condoms and foam
4. Review “safe sex” practices to help avoid STD’s.

III. Referral

- A. Refer to medical clinic or family planning agency for screening and contraceptive methods other than condoms
- 
-



---

**System: Genitourinary**  
**Problem: Dysuria- Painful Urination**

I. Assessment:

A. Subjective:

1. Burning or stinging sensation most commonly associated with a UTI, but could also be caused by a STD or yeast infection. May be accompanied by urinary frequency or hematuria

B. Objective:

1. Assess for signs and symptoms of UTI

Neonatal:

Poor feeding, vomiting, failure to gain weight, rapid respirations, respiratory distress, jaundice, screaming upon urination, seizures, dehydration

Infancy:

Same as above, as well as foul-smelling urine, pallor, fever, persistent diaper rash

Childhood:

Same as above, as well as poor appetite, vomiting, growth failure due to renal insufficiency, excessive thirst, new onset enuresis, recent or frequent abx use with abdominal or back pain

2. Assess for STD exposure risk

II. Intervention

A. Treatment:

1. Identify contributing factors and eliminate if possible
2. Offer acetaminophen – dose calculated by weight (see addendum E ) for comfort until evaluated by PCP.

B. Patient Education:

1. STD

Unprotected sex, many STDs, and other high risk behaviors, importance of prompt treatment and consider partner treatment

Appropriate/ inappropriate sexual interactions depending on the age of the child

Community resources available to family and child

2. UTI

Risks: Potential for spread to kidney, long-term damage, especially severe in young children

Causes: Bacteria entering urethra and urinary stasis

Prevention: Simple hygienic habits; e.g. wiping from front to back, avoiding tight clothing or diapers, wearing cotton underwear, avoiding holding urine, encouraging frequent voiding, emptying bladder completely, generous fluid intake

3. Yeast Infection same as UTI

C. Follow Up: In 1-2 weeks to confirm referrals completed

### III. Referral

A. Refer to PCP for urinalysis if has s/sx of UTI or STD or otherwise needed.

**System: Genitourinary**  
**Problem: Enuresis-Bed Wetting**

I Assessment

A. Subjective:

1. Intentional or involuntary passage of urine on bed (usually at night) or on clothes during the day in children who are beyond the age when voluntary bladder control should normally have been acquired.
2. Diagnosed when occurs at least twice a week for at least 3 months and chronological or developmental age must be at least 5 years old.

B. Objective:

1. Urgency that is immediate and accompanies by acute discomfort, restlessness, and urinary frequency
2. May occur with UTI, Diabetes, and emotional stressors i.e. changes of routine homelessness

II. Intervention

A. Patient Education

1. Explain problem, treatment and goals and provide emotional support and encouragement to help family get through treatment process
2. Explain that punishment is not useful and can have a negative emotional impact and may damage their confidence during this developmental phase

B. Follow up:

1. In 1-2 weeks to confirm referrals completed

III. Referral

- A. Refer to PCP as indicated
- B. Mental health screening

## **X. DERMATOLOGY**

**System: Dermatology**  
**Problem: Chicken Pox**

I. Assessment

A. Subjective:

1. Hx of exposure
2. Onset on lesions
3. Onset of prodrome: s/s low grade temp, headache, URI, anorexia, H/A, malaise 24-48 before lesions
4. Fever, breathing problems, changes in mental status
5. Anyone else in the family with chicken pox
6. Potential expose to those at risk i.e. immune compromised, pregnant, or those adults never having chickenpox

B. Objective:

1. Evaluate characteristics (macules, papules, vesicles, crusted lesions)
2. Evaluate location & distribution (face, trunk, scalp & extremities)
3. Evaluate mucous membranes, conjunctiva, and cornea
4. Temperature, RR, HR
5. Evaluate respiratory system function
6. Mental status

II. Intervention

A. Treatment:

1. Isolate until vesicles have dried
2. Offer Diphenhydramine Elixir appropriate for age/weight if child over 6 months
3. Referral to PCP for acyclovir consideration if <72 hours duration. Notify clinic to avoid exposure of other patients or staff
4. Calamine lotion
5. Acetaminophen as indicated for temp
6. Topical antibiotic for infected lesions

B. Patient Education:

1. Transmitted by direct contact or inhalation from nose & throat secretions
2. Communicable from 24-48 hours prior to first lesions & until all lesions have crusted
3. Crusts do not contain active virus
4. Reoccurrence is rare. Lifelong immunity is generally conferred
5. In mild cases, crusting occurs within 5 days. In severe cases, crusting occurs in 10 days
6. Keep child home from school until all vesicles are crusted; this generally takes 7 days
7. Do not expose to pregnant women or infants
8. Do not expose to children with eczema or malignancies or those on immunosuppressive therapy
9. Call immediately if cough, dyspnea, or chest pain occurs within 2-5 days of onset on exanthem
10. Call immediately if child develops high fever, stiff neck, headache, listlessness, or hyperirritability
11. Keep nails trimmed. Put gloves on child if scratching is a problem
12. Use careful hygiene to prevent superimposed infection; keep nails clean and trimmed.

13. Encourage fluids
14. If genital lesions cause dysuria, encourage child to void in tub
15. Crusts fall off in 5-20 days
  16. When scabs fall off, a shallow pink depression remains. This eventually becomes white, and repigmentation occurs later
17. Scarring is caused by premature removal of scabs or secondarily infected lesions
18. Do not use aspirin
  19. Cool bath with cornstarch, baking soda, oatmeal or Aveeno baths: mix 1 cup Aveeno with 2 cups cold water. Shake until well mixed, then pour in tub of tepid water
  20. Warm saline for mouth & genital lesions
21. Notify potential contacts (other shelter residents) of possible exposure

Keep

### III. Referral

- A. Refer to clinic for follow up
    1. Fever >103
    2. Cough, dyspnea or respiratory distress
    3. Patient appears ill or toxic, severe headache stiff neck lethargy
    4. Corneal lesions present
    5. Headache, neck pain, lethargic
    6. Secondary infection
    7. Mental status changes
  - B. Refer within 48 hours:
    1. If lesions appear secondarily infected
    2. Mucous membrane lesions
  - C. Refer exposed person at risk to primary provider for consultation. May be a candidate for VZIG, antiviral treatment, or immunization
-

**System: Dermatology**

**Problem: Rash**

I. Assessment

A. Subjective:

1. Onset, duration, history, color, elevation, pattern or shape size, location and distribution, exudate, odor
2. Is it painful or itchy?
3. Associated symptoms: fever, sore throat, URI symptoms, cough, headache
4. Recent exposure to illness, drugs, insect bites, allergens, poisons environmental contacts
5. Any history of similar rash or other skin conditions

B. Objective:

1. Location and extent of rash
2. Appearance
3. Temperature

II. Intervention

A. Treatment:

1. May offer Calamine lotion
2. If skin is dry or flaky without rash, offer Eucerin or Vaseline
3. Oatmeal or Aveeno baths

B. Patient Education:

1. Cool bath
2. Avoid irritants/allergens
3. Observe for signs of infection

C. Follow-up:

1. Within 2-3 days or sooner if symptoms worsen or rash persists

III. Referral

A. Refer to clinic same day if:

1. Sore throat, fever
2. If lesions are crusted or weepy or appear secondarily infected.
3. Persistent or spreading rash
4. If patient appears ill or toxic

B. Emergent referral if rapid onset with purpura rash

---

**System: Dermatology**

**Problem: Lice**

I. Assessment

A. Subjective:

1. Lice or nits observed
2. Laundry facilities
3. Last treatment with pesticide, if ever

B. Objective:

1. Temperature
2. Visible nits or lice
3. Excoriations or rash on scalp and neck

II. Interventions

A. Goal is to remove all lice and nits form hair and scalp. Options include:

1. Pesticide application. For individuals age 2 months and older, Nix Crème Rinse recommended. Other pesticides are available. Note age restrictions for each. Provides precise instructions for particular pesticide
2. Lice Out Gel to assist in the removal of lice and nits

B. Patient Education:

1. Prevention of reinfestation and transmission
2. Techniques for nit removal
3. Monitor for signs of skin infection secondary to scratching. (See patient education form)

C. Follow-up:

1. In one week, or sooner if visible lice after treatment. Review or observe second treatment and steps to prevent reinfestation to prevent reinfestation

III. Referral

- A. To medical clinic within 24 hours if temperature  $>38.5$  or if signs of secondary bacterial infection excoriations present.
- 

**System: Dermatology**

**Problem: Scabies**



I. Assessment

A. Subjective:

1. Duration of rash, presence or absence of itching. Most intense at night
2. Possible exposure to scabies
3. Laundry facilities
4. Last treatment of pesticide, if ever

B. Objective:

1. Temperature
2. Description of appearance and distribution of rash
3. Linear, inreadline, grayish burrows 1-10 mm long. Burrow may end in a vesicle or papule. Common sites finger webs, wrists, extensor surfaces of elbows and knees, lateral aspect of Feet, axilla.

II. Intervention

A. Treatment:

1. Treat all household members with pesticide application whether symptomatic or not. Elimite Cream 5% is recommended for individuals age 2 months or older. For pregnant women, assure positive diagnosis scabies before treatment. Alternative therapies are available but not preferred.
2. Comfort measures to treat pruritis  
Diphenhydramine dose by weight if necessary  
Hydrocortisone Cream 1% QID to lesions  
Calamine Lotion to lesions
3. Wash all clothes and linens in hot water and dry for at least 30 minutes, or hot iron. Or seal in plastic bag for 2 weeks.

B. Patient Education:

1. Prevention of reinfestation and transmission of scabies
2. Hygiene and prevention of secondary skin infection

C. Follow-up:

1. In one week to inspect rash. If improving but not resolved, send back to clinic

III. Referral

A. To medical clinic - non-emergent but ASAP

B. To medical clinic within 24 hours if temperature  $>38.5$  or if there is evidence of secondary bacterial infection of skin

C. To medical clinic within one week if rash is not improved after first Nix treatment; if not resolved after second Nix treatment

---

**System: Dermatology**  
**Problem: Dry skin**

I. Assessment

A. Subjective:

1. Frequency of bathing
2. Soaps and other topical preparations used on skin
3. Possible exposures via direct contact

B. Objective:

1. Temperature
2. Inspect describe involved skin
3. Evaluate for systemic symptoms

II. Intervention

A. Treatment: May require 4-6 times a day if smaller amounts not helping.

1. If dry, flaky skin present elsewhere without actual rash, may dispense emollient for 4-6 times daily PRN use:
  - a. Eucerin (max. 30 gms.).

B. Patient Education:

1. Minimize soap use on affected areas
2. Maintain adequate fluid intake
3. Symptoms and Signs of worsening condition

C. Follow-up:

1. One week to evaluate progress of condition. If still present and not responding refer for medical evaluation

III. Referral

- A. To medical clinic if temperature  $>38.5$ , if any rash is present, or if systemic symptoms accompany skin problems
-

**System:** Dermatology  
**Problem:** Tinea Corporis

I. Assessment

A. Subjective:

1. How long lesions are present (incubation period 4-10 days)
2. History of exposure to infected person or animal
3. Complaint of rash, round sores or ringworm

B. Objective:

1. Distribution of lesions.
2. Flat erythematous papules
3. Spread peripherally
4. Clear centrally
5. Distribution most commonly on face, neck, arms (may affect any part of the body)
6. Check feet and scalp
  - a. Feet (Tinea pedis): tissue, macerated, scaly rash on soles of feet or between toes
  - b. Head (Tinea capitis): patchy hair loss, lesions with central clearing

II. Intervention

A. Treatment: Clotrimazole/ 1% BID x 2 weeks

B. Patient Education:

1. Communicable as long as lesions present
2. Transmission by direct and indirect contact
3. Bathe or shower daily
4. Launder clothing in hot water
5. May take 1-3 weeks for effective cure

III. Referral

- A. If severe or extensive may require treatment with Griseofulvin
  - B. If secondary infection present
  - C. To a social service agency if shoes are wet or ill fitted
-

**System:** Dermatology

**Problem:** Eczema

I. Assessment

A. Subjective:

1. Appearance of lesions
2. Distribution of lesions
3. Family and personal history (Hx asthma)

B. Objective:

1. Appearance of lesions: Observe for erythema,, vesicles, papules, weeping , oozing, crusty, scaling
2. Generalized or flexural area- antecubital space, popliteal fossa, neck flexure crease)
3. Temperature
4. Secondary infection

II. Intervention

A. Patient Education:

1. Bathe in tepid water
2. Avoid using soap, bubble bath, oils, perfumes
3. Use colloids (oatmeal in main H<sub>2</sub>O)
4. Use of soft cotton fabrics
5. Launder clothes/sheets in mild detergent
6. Regarding use of topical medication, antihistamines
7. Keep finger nails short and clean to minimize trauma and secondary infection

III. Referral

A. Secondary infections

- B. No response to treatment regime
-

**System: Dermatology**

**Problem: Candidiasis**

I. Assessment

A. Subjective:

1. Bright red rash in diaper area
2. Satellite lesions-outside border of rash
3. Baby does not appear uncomfortable
4. History of vaginal infection in mother

B. Objective:

1. Diaper area
  - a. Beefy, red, shiny
  - b. Sharply demarcated borders
  - c. Satellite lesions-erythematous papules and/or pustules
2. Inspect entire body; candidiasis may be found in intertriginous areas (e.g., neck, axilla, umbilicus)
3. Inspect mouth for oral candidiasis (thrush)

II. Intervention

A. Treatment:

1. Lotrimin (clotrimazole) cream. Apply small amount twice daily.
2. Miconazole (Monistae Derm). Apply small amount bid.

B. Patient Education:

1. Change diapers frequently
2. Cleanse diaper area with tepid water at each diaper change
3. Keep baby clean and dry, with special attention to warm, moist areas
  4. Careful hand-washing technique; candidiasis is transmitted by direct contact with secretions and excretions
5. Check entire body for appearance of rash in intertriginous areas
6. Medication
  - a. Use medication sparingly
  - b. Be alert for drug sensitivity-itching, irritation, maceration, secondary infection
  - c. Do not use medication for other rashes
  - d. Continue medication for at least 2 full days following disappearance of rash
7. Do without diapers as often as possible; C.albicans thrives in warm, moist areas.
8. Do not use plastic pants
9. Do not use cornstarch; It may be metabolized by microorganisms
10. If mother is suspect for vaginal candidiasis, refer for diagnosis

III. Referral

- A. Frequent recurrences may require oral nystatin therapy to eliminate *C.albicans* in the intestine.  
May also reflect an underlying immunodeficiency
- B. Failure to respond to treatment after 1 week

## **Addenda**

A. Vital Signs

**Addendum A: Vital Signs**

Vital Signs by Age

*Variations in Respiration with Age*

<i>AGE</i>	<b>RATE (breaths/min)</b>
Premature Infant	40-90
Neonate	30-80
1 year	20-40
2 years	20-30
3 years	20-30
5 years	20-25
10 years	17-22
15 years	15-20
20 years	15-20

*Normal Blood Pressure Values at Various Ages*

<b>Age</b>	<b>Systole/Diastole (mm Hg) (Girls)</b>	<b>Systole/Diastole (mm Hg) (Boys)</b>
1 month	84/52	86/52
6 months	91/53	90/53
1 year	91/54	90/56
2 years	90/56	91/56
4 years	92/56	93/56
6 years	96/57	96/57
8 years	99/59	99/60
10 years	102/62	102/62
12 years	107/66	107/64
14 years	110/67	112/64
16 years	112/67	117/67

*Pulse Rates in Children at Rest*

<i>Age</i>	<i>Resting (awake)</i>	<i>Resting (asleep)</i>	<i>Exercise and fever</i>
Birth	100-180	80-160	Up to 220
1-3 months	100-220	80-180	Up to 220
3 months – 2 years	80-150	70-120	Up to 200
2 years – 10 years	70-110	60-100	Up to 180
10 years – Adult	55-9	50-90	Up to 180



B. Peak Flow



# Healthcare South

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## Predicted Average Peak Expiratory Flow (liters per minute)



These tables should only be used as rough guidelines for the diagnosis of asthma. The National Asthma Education Program recommends that a patient's own maximum peak flow rate be used as a baseline reading. This measurement should only be made when one's asthma is considered to be under control.

Age (Years)	Normal Males*				
	Height				
	60"	65"	70"	75"	80"
20	554	602	649	693	740
25	543	590	636	679	725
30	532	577	622	664	710
35	521	565	609	651	695
40	509	552	596	636	680
45	498	540	583	622	665
50	486	527	569	607	649
55	475	515	556	593	634
60	463	502	542	578	618
65	452	490	529	564	603
70	440	477	515	550	587

Age (Years)	Normal Females*				
	Height				
	55"	60"	65"	70"	75"
20	390	423	460	496	529
25	385	418	454	490	523
30	380	413	448	483	516
35	375	408	442	476	509
40	370	402	436	470	502
45	365	397	430	464	495
50	360	391	424	457	488
55	355	386	418	451	482
60	350	380	412	445	475
65	345	375	406	439	468
70	340	369	400	432	461

Normal Children and Adolescents:	
Height (inches)	Males & Females
43"	147
44"	160
45"	173
46"	187
47"	200
48"	214
49"	227

Predicted Average Peak Expiratory Flow

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50"	240
51"	254
52"	267
53"	280
54"	293
55"	307
56"	320
57"	334
58"	347
59"	360
60"	373
61"	387
62"	400
63"	413
64"	427
65"	440
66"	454

*\*Leiner GC. et al: Expiratory peak flow rate. AM Rev Respir Dis 88:644, 1963.*

*1 Polgar G. Promadhat V: Pulmonary Function Testing in Children: Techniques and Standards. Philadelphia, W.B. Saunders Company, 1971.*

November 2001



**Addendum C: Clinical Signs of Dehydration –Boynfon’s**

<b>SIGN</b>	<b>MILD</b>	<b>MODERATE</b>	<b>SEVERE</b>
<b>Weight loss (% of body weight)</b>	3-5%	6-9%	10-15%
<b>Fontanel</b>	Flat		Sunken
<b>Fever (in absence of infection)</b>	Variable	Present	Present
<b>Skin</b>			
<b>Turgor</b>	Normal	Decreased	Tenting
<b>Color</b>	Normal	Pallor	Pallor
<b>Mucous Membranes</b>	Slightly Moist	Dry	Parched
<b>Tears</b>	Present	Variable	Absent
<b>Thirst</b>	Slight	Moderate to Marked	Marked
<b>Pulse</b>	May be normal	Increased	Increased
<b>Intake</b>	Decreased	Decreased	Decreased
<b>Urinary Output</b>	Decreased	Decreased	Decreased
<b>Urine Specific Gravity</b>	Slightly changed	Increased	Markedly increased up to 1.03
<b>Neurologic Status</b>	Normal	Irritable	Hyperirritable or lethargic

**Clinical Manifestations of Dehydration- Wongs & Whaley**

	<b>Isotoni (Loss of Water &amp; Salt)</b>	<b>Hypotonic (Loss of Salt in Excess of Water)</b>	<b>Hypertonic (Loss of Water in Excess of Salt)</b>
<b>Skin</b>			
* <b>Color</b>	Gray	Gray	Gray
* <b>Temperature</b>	Cold	Cold	Cold or hot
* <b>Turgor</b>	Poor	Very poor	Fair
* <b>Feel</b>	Dry	Clammy	Thickened, doughy
<b>Mucous Membranes</b>	Dry	Slightly moist	Parched
<b>Tearing &amp; Salivation</b>	Absent	Absent	Absent
<b>Eyeball</b>	Sunken & Soft	Sunken	Sunken
<b>Fontanel</b>	Sunken	Sunken	Sunken
<b>Body temperature</b>	Subnormal or elevated	Subnormal of elevated	Subnormal or elevated
<b>Pulse</b>	Rapid	Very rapid	Moderately rapid
<b>Respirations</b>	Rapid	Rapid	Rapid
<b>Behavior</b>	Irritable to lethargic	Lethargic to comatose; convulsions	Marked lethargy with extreme hyperirritability on stimulation

**D. BMI**



# Use and Interpretation of the CDC Growth Charts

## Purpose

This guide instructs health care providers on how to use and interpret the CDC Growth Charts to assess physical growth in children and adolescents. Using these charts, health care providers can compare growth in infants, children, and adolescents with a nationally representative reference based on children of all ages and racial or ethnic groups. Comparing body measurements with the appropriate age- and gender-specific growth chart enables health care providers to monitor growth and identify potential health- or nutrition-related problems.

During routine screening, health care providers assess physical growth using the child's weight, stature, length, and head circumference. Although one measurement plotted on a growth chart can be used to screen children for nutritional risk, it does not provide adequate information to determine the child's growth pattern. When plotted correctly, a series of accurate weights and measurements of stature or length offer important information about a child's growth pattern, which may be influenced by such factors as gestational age, birth weight, and parental stature. Parental stature, for example, is considered before assuming there is a health or nutrition concern. Other factors, such as the presence of a chronic illness or special health care need, must be considered, and further evaluation may be necessary.

## STEP

**1 Obtain accurate weights and measures** When weighing and measuring children, follow procedures that yield accurate measurements and use equipment that is well maintained. See the *Anthropometry: Accurately Weighing and Measuring Infants, Children and Adolescents* module for information about accurate weighing and measuring procedures.

**2 Select the appropriate growth chart** Select the growth chart to use based on the age and gender of the child being weighed and measured.

- *Enter the child's name and the record number, if appropriate.*

Use the charts listed below when measuring boys and girls in the recumbent position (should be limited to those less than 36 months old):

- Length-for-age
- Weight-for-age
- Head circumference-for-age
- Weight-for-length

Use the charts listed below when determining the stature (standing height) of boys and girls aged 2 to 20 years:

- Weight-for-age
- Stature-for-age
- BMI-for-age

**3 Record data** After selecting the appropriate chart and entering the patient's name and record number, if appropriate, complete the data entry table.

First, record information about factors obtained at the initial visit that influence growth.

- Enter mother's and father's stature as reported.
- Enter the gestational age in weeks.

The next line is reserved for recording the child's birth data. (*Omit this step when using growth charts for children aged 2 to 20 years.*)

- Enter the date of birth.
- Enter birth weight, length, and head circumference.
- Add notable comments (e.g., breastfeeding).

Record information obtained during the current visit.

- Enter today's date.

Determine age to the nearest month for infants and 1/4-year for children 2 to 20 years.

- Enter the child's age.

**Example of how to calculate the child's age:** To calculate Sam's age, subtract his birth date from the date of the visit or measurement. To subtract, it will be necessary to convert months to days and years to months if either the month or day in the birth data is larger than in the date of measurements. When converting one month to days, subtract 1 from the number of months in the date of measurement, then add 28, 30, or 31, as appropriate, to the number of days. When converting one year to months, subtract 1 from the number of years in the date of measurement, then add 12 to the number of months.

	Year	Month	Day
Date of Measurement	1998	4	4
Convert one month to days		(-1)	(+30)
	1998	3	34
Convert one year to months	(-1)	(+12)	
	1997	15	34
Birth Date	1994	9	15
Child's Age	3	6	19

Sam is aged 3 years, 6 months, and 19 days.

Days → Month		Months → Year	
0-15	0	0-1	0
16-31	1	2-4	1/4
		5-7	1/2
		8-10	3/4
		11-12	1

Using the guide above, 3 years, 6 months, and 19 days is rounded to 3 years and 7 months. Because age for children over 2 is rounded to the nearest 1/4 year, Sam's age is rounded to 3 1/2 years.

- Enter weight, stature, and head circumference (if appropriate) immediately after taking the measurement.
- Add any notable comments (e.g., was not cooperative).

# 4

**Calculate BMI** BMI is calculated using weight and stature measurements, then used to compare a child's weight relative to stature with other children of the same age and gender.

- *With a calculator, determine BMI using the calculation below.*

$$\text{BMI} = \text{Weight (kg)} \div \text{Stature (cm)} \div \text{Stature (cm)} \times 10,000$$

Or

$$\text{BMI} = \text{Weight (lb)} \div \text{Stature (in)} \div \text{Stature (in)} \times 703$$

It is necessary to convert the weight and stature measurements to the appropriate decimal value shown in Table 1.

*Example: 37 lbs. 4 oz. = 37.25 lbs., 41-1/2 inches = 41.5 in.*

**Table 1. Decimal Conversions**

Fraction	Ounces	Decimal
1/8	2	.125
1/4	4	.25
3/8	6	.375
1/2	8	.5
5/8	10	.625
3/4	12	.75
7/8	14	.875

- *Enter BMI to one place after the decimal point (Example: 15.204 = 15.2).*

See the *Using the BMI-for-Age Growth Chart* module ([www.cdc.gov/growthcharts](http://www.cdc.gov/growthcharts)) for more information and additional resources on calculating BMI.

# 5

**Plot measurements** On the appropriate growth chart, plot the measurements recorded in the data entry table for the current visit.

- *Find the child's age on the horizontal axis. When plotting weight-for-length, find the length on the horizontal axis. Use a straight edge or right-angle ruler to draw a vertical line up from that point.*
- *Find the appropriate measurement (weight, length, stature, head circumference, or BMI) on the vertical axis. Use a straight edge or right-angle ruler to draw a horizontal line across from that point until it intersects the vertical line.*
- *Make a small dot where the two lines intersect.*

# 6

**Interpret the plotted measurements** The curved lines on the growth chart show selected percentiles that indicate the rank of the child's measurement. For example, when the dot is plotted on the 95<sup>th</sup> percentile line for BMI-for-Age, it means that only 5 of 100 children (5%) of the same age and gender in the reference population have a higher BMI-for-Age. Interpret the plotted measurements based on the percentile ranking and the percentile cutoff corresponding to the nutrition indicator shown in the table below. If the percentile rank indicates a nutrition-related health concern, additional monitoring and assessment are recommended.

- Determine the percentile rank.
- Determine if the percentile rank suggests that the anthropometric index is indicative of nutritional risk based on the percentile cutoff value.
- Compare today's percentile rank with the rank from previous visits to identify any major shifts in the child's growth pattern and the need for further assessment.

Anthropometric Index	Percentile Cut-off Value	Nutritional Status Indicator
BMI-for-Age	≥ 95 <sup>th</sup>	Overweight
Weight-for-Length	> 95 <sup>th</sup>	
BMI-for-Age	≥ 85 <sup>th</sup> and < 95 <sup>th</sup>	At Risk of Overweight
BMI-for-Age		
Weight-for-Length	< 5 <sup>th</sup>	Underweight
Stature/Length-for-Age	< 5 <sup>th</sup>	Short Stature
Head Circumference-for-Age	< 5 <sup>th</sup> and > 95 <sup>th</sup>	Developmental Problems

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### Children's BMI Tables\*

pediatrics.About.com

BMI	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Height (inches)																								
33	20	21	23	24	26	27	29	30	32	34	35	37	38	40	41	43	44	46	48	49	51	52	54	55
34	21	23	24	26	27	29	31	32	34	36	37	39	41	42	44	46	47	49	50	52	54	55	57	59
35	22	24	26	27	29	31	33	34	36	38	40	41	43	45	47	48	50	52	54	55	57	59	60	62
36	23	25	27	29	31	33	35	36	38	40	42	44	46	47	49	51	53	55	57	58	60	62	64	66
37	25	27	29	31	33	35	37	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70
38	26	28	30	32	34	36	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73
39	28	30	32	34	36	38	41	43	45	47	49	51	54	56	58	60	62	64	67	69	71	73	75	77
40	29	31	34	36	38	40	43	45	47	50	52	54	56	59	61	63	66	68	70	72	75	77	79	81
41	31	33	35	38	40	43	45	47	50	52	54	57	59	62	64	66	69	71	74	76	78	81	83	86
42	32	35	37	40	42	45	47	50	52	55	57	60	62	65	67	70	72	75	77	80	82	85	87	90
43	34	36	39	42	44	47	49	52	55	57	60	63	65	68	71	73	76	78	81	84	86	89	92	94
44	35	38	41	44	46	49	52	55	57	60	63	66	68	71	74	77	79	82	85	88	90	93	96	99
45	37	40	43	46	48	51	54	57	60	63	66	69	72	74	77	80	83	86	89	92	95	97	100	103
46	39	42	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108
47	40	43	47	50	53	56	59	62	65	69	72	75	78	81	84	87	91	94	97	100	103	106	109	113
48	42	45	49	52	55	58	62	65	68	72	75	78	81	85	88	91	95	98	101	104	108	111	114	117
49	44	47	51	54	58	61	64	68	71	75	78	81	85	88	92	95	99	102	105	109	112	116	119	122
50	46	49	53	56	60	64	67	71	74	78	81	85	88	92	96	99	103	106	110	113	117	120	124	128
51	48	51	55	59	62	66	70	73	77	81	85	88	92	96	99	103	107	110	114	118	122	125	129	133
52	50	53	57	61	65	69	73	76	80	84	88	92	96	100	103	107	111	115	119	123	126	130	134	138
53	51	55	59	63	67	71	75	79	83	87	91	95	99	103	107	111	115	119	123	127	131	135	139	143
54	53	58	62	66	70	74	78	82	87	91	95	99	103	107	111	116	120	124	128	132	136	141	145	149
55	55	60	64	68	73	77	81	86	90	94	98	103	107	111	116	120	124	129	133	137	141	146	150	154
56	57	62	66	71	75	80	84	89	93	98	102	107	111	115	120	124	129	133	138	142	147	151	156	160
57	60	64	69	73	78	83	87	92	97	101	106	110	115	120	124	129	134	138	143	147	152	157	161	166
58	62	66	71	76	81	86	90	95	100	105	110	114	119	124	129	133	138	143	148	153	157	162	167	172
59	64	69	74	79	84	89	94	99	103	108	113	118	123	128	133	138	143	148	153	158	163	168	173	178
60	66	71	76	81	87	92	97	102	107	112	117	122	128	133	138	143	148	153	158	163	168	174	179	184
61	68	74	79	84	89	95	100	105	111	116	121	127	132	137	142	148	153	158	164	169	174	179	185	190
62	71	76	82	87	92	98	103	109	114	120	125	131	136	142	147	153	158	164	169	174	180	185	191	196
63	73	79	84	90	95	101	107	112	118	124	129	135	141	146	152	158	163	169	175	180	186	191	197	203
64	75	81	87	93	99	104	110	116	122	128	134	139	145	151	157	163	168	174	180	186	192	198	203	209
65	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216
66	80	86	92	99	105	111	117	123	130	136	142	148	154	161	167	173	179	185	192	198	204	210	216	223
67	83	89	95	102	108	114	121	127	134	140	146	153	159	166	172	178	185	191	197	204	210	217	223	229
68	85	92	98	105	111	118	124	131	138	144	151	157	164	171	177	184	190	197	203	210	217	223	230	236
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76	106	115	123	131	139	147	156	164	172	180	188	197	205	213	221	230	238	246	254	262	271	279	287	295
77	109	118	126	134	143	151	160	168	177	185	193	202	210	219	227	236	244	253	261	269	278	286	295	303
78	112	121	129	138	147	155	164	173	181	190	199	207	216	225	233	242	250	259	268	276	285	294	302	311

\*To use the table, find the appropriate height in the left-hand column labeled Height. Move across to a given Weight. The number at the top of the column is the BMI at that height and weight. Pounds have been rounded off.



## Children's Metric BMI Tables\*

pediatrics.About.com

BMI	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Height (cm)																								
90	10	11	12	12	13	14	15	16	17	17	18	19	20	21	21	22	23	24	25	25	26	27	28	29
93	11	12	12	13	14	15	16	17	18	19	19	20	21	22	23	24	25	25	26	27	28	29	30	31
96	11	12	13	14	15	16	17	18	19	20	21	22	23	23	24	25	26	27	28	29	30	31	32	33
99	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
102	13	14	15	16	17	18	19	20	21	22	23	24	26	27	28	29	30	31	32	33	34	35	36	37
105	14	15	16	17	18	19	20	22	23	24	25	26	27	28	29	30	31	33	34	35	36	37	38	39
108	15	16	17	18	19	20	22	23	24	25	26	27	29	30	31	32	33	34	36	37	38	39	40	41
111	16	17	18	19	20	22	23	24	25	27	28	29	30	32	33	34	35	36	38	39	40	41	43	44
114	16	18	19	20	22	23	24	25	27	28	29	31	32	33	35	36	37	38	40	41	42	44	45	46
117	17	19	20	21	23	24	26	27	28	30	31	32	34	35	36	38	39	41	42	43	45	46	47	49
120	18	20	21	23	24	25	27	28	30	31	33	34	36	37	38	40	41	43	44	46	47	48	50	51
123	19	21	22	24	25	27	28	30	31	33	34	36	37	39	40	42	43	45	46	48	49	51	52	54
126	20	22	23	25	26	28	30	31	33	34	36	38	39	41	42	44	46	47	49	50	52	53	55	57
129	21	23	24	26	28	29	31	33	34	36	38	39	41	43	44	46	48	49	51	53	54	56	58	59
132	22	24	26	27	29	31	33	34	36	38	40	41	43	45	47	48	50	52	54	55	57	59	60	62
135	23	25	27	29	30	32	34	36	38	40	41	43	45	47	49	51	52	54	56	58	60	61	63	65
138	24	26	28	30	32	34	36	38	39	41	43	45	47	49	51	53	55	57	59	60	62	64	66	68
141	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71
144	26	29	31	33	35	37	39	41	43	45	47	49	51	53	55	58	60	62	64	66	68	70	72	74
147	28	30	32	34	36	38	41	43	45	47	49	51	54	56	58	60	62	64	66	69	71	73	75	77
150	29	31	33	36	38	40	42	45	47	49	51	54	56	58	60	63	65	67	69	72	74	76	78	81
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159	32	35	37	40	42	45	48	50	53	55	58	60	63	65	68	70	73	75	78	80	83	85	88	91
162	34	36	39	41	44	47	49	52	55	57	60	62	65	68	70	73	76	78	81	83	86	89	91	94
165	35	38	40	43	46	49	51	54	57	59	62	65	68	70	73	76	78	81	84	87	89	92	95	98
168	36	39	42	45	47	50	53	56	59	62	64	67	70	73	76	79	81	84	87	90	93	95	98	101
171	38	40	43	46	49	52	55	58	61	64	67	70	73	76	78	81	84	87	90	93	96	99	102	105
174	39	42	45	48	51	54	57	60	63	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108
177	40	43	46	50	53	56	59	62	65	68	72	75	78	81	84	87	90	93	97	100	103	106	109	112
180	42	45	48	51	55	58	61	64	68	71	74	77	81	84	87	90	93	97	100	103	106	110	113	116
183	43	46	50	53	56	60	63	66	70	73	77	80	83	87	90	93	97	100	103	107	110	113	117	120
186	44	48	51	55	58	62	65	69	72	76	79	83	86	89	93	96	100	103	107	110	114	117	121	124
189	46	50	53	57	60	64	67	71	75	78	82	85	89	92	96	100	103	107	110	114	117	121	125	128
192	47	51	55	58	62	66	70	73	77	81	84	88	92	95	99	103	106	110	114	117	121	125	129	132
195	49	53	57	60	64	68	72	76	79	83	87	91	95	98	102	106	110	114	117	121	125	129	133	136

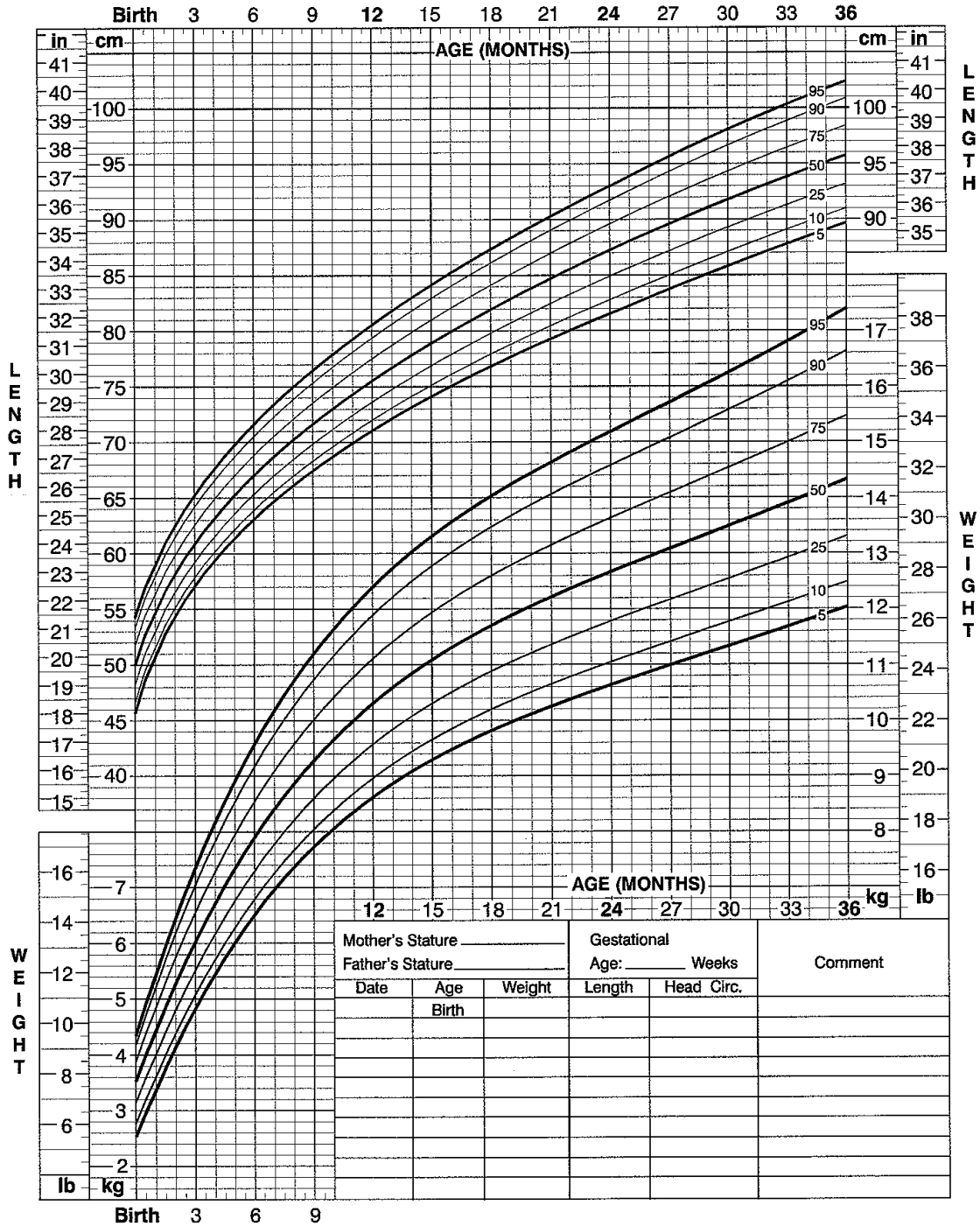
\*To use the table, find the appropriate height in the left-hand column labeled Height. Move across to a given Weight. The number at the top of the column is the BMI at that height and weight. Pounds have been rounded off.

**Birth to 36 months: Boys**

NAME \_\_\_\_\_

**Length-for-age and Weight-for-age percentiles**

RECORD # \_\_\_\_\_



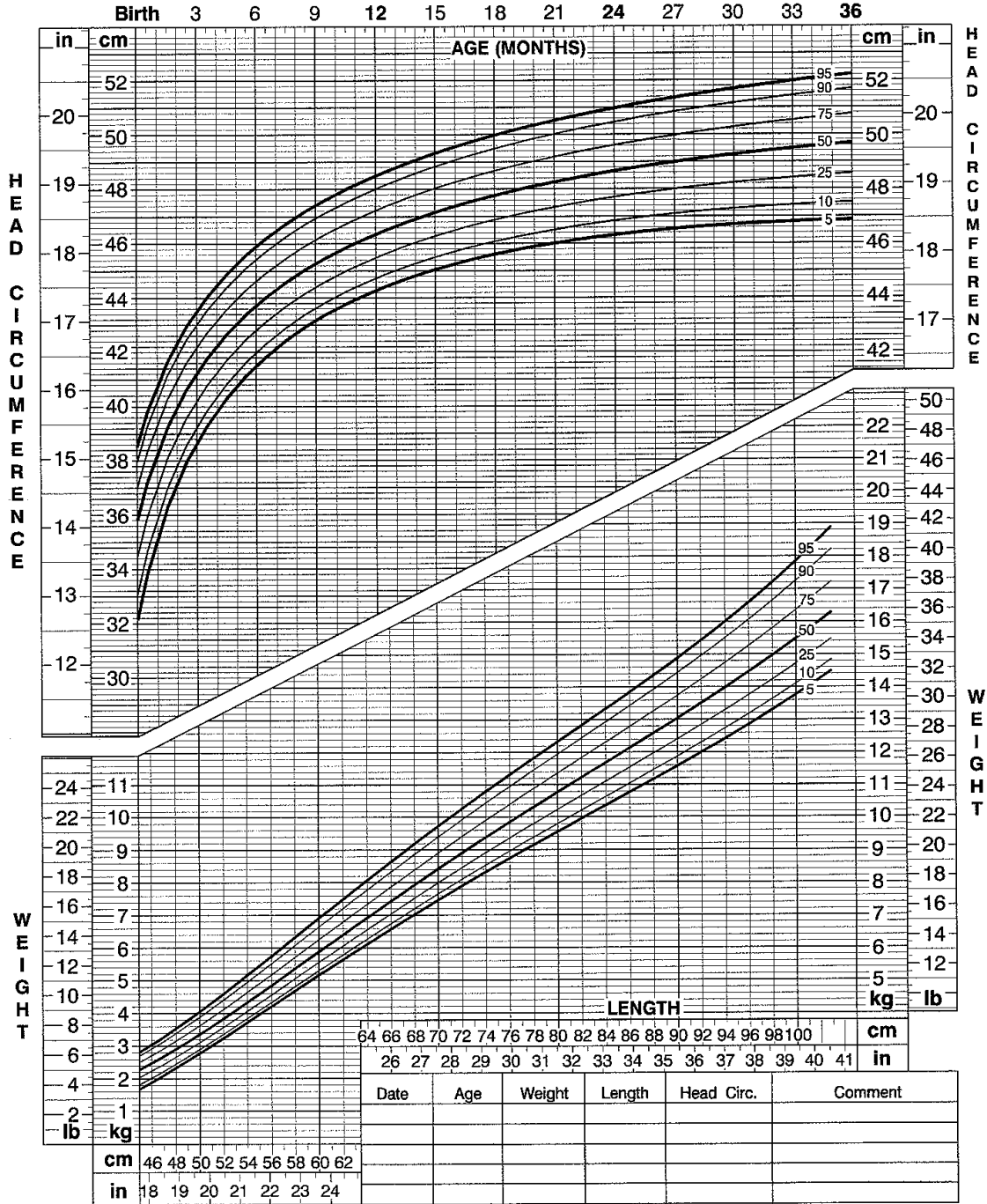
Published May 30, 2000 (modified 4/20/01).  
 SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).  
<http://www.cdc.gov/growthcharts>



**Birth to 36 months: Boys**  
**Head circumference-for-age and**  
**Weight-for-length percentiles**

NAME \_\_\_\_\_

RECORD # \_\_\_\_\_



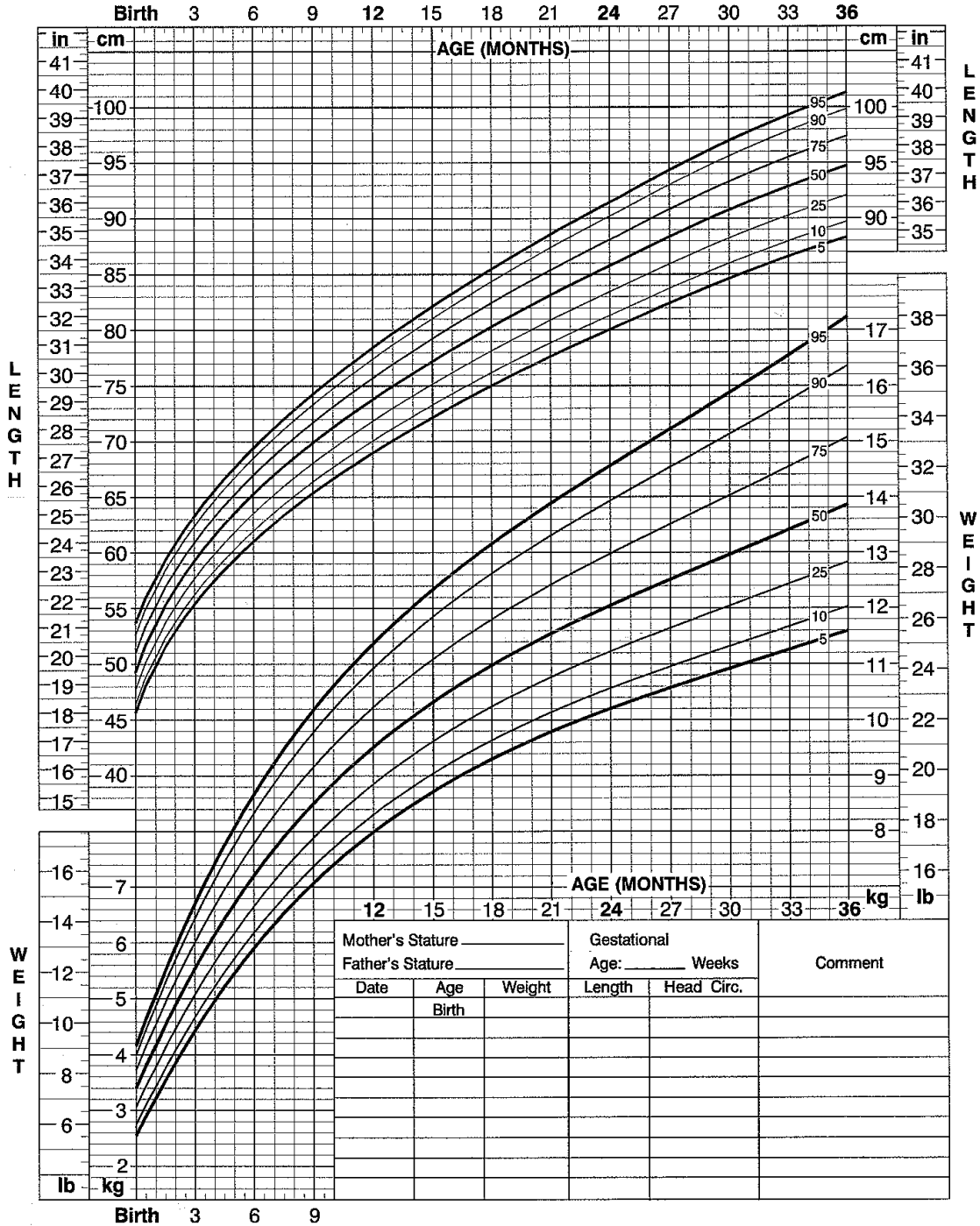
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 SOURCE: Developed by the National Center for Health Statistics in collaboration with  
 the National Center for Chronic Disease Prevention and Health Promotion (2000).  
<http://www.cdc.gov/growthcharts>



**Birth to 36 months: Girls**  
**Length-for-age and Weight-for-age percentiles**

NAME \_\_\_\_\_

RECORD # \_\_\_\_\_



Published May 30, 2000 (modified 4/20/01).  
 SOURCE: Developed by the National Center for Health Statistics in collaboration with  
 the National Center for Chronic Disease Prevention and Health Promotion (2000).  
<http://www.cdc.gov/growthcharts>

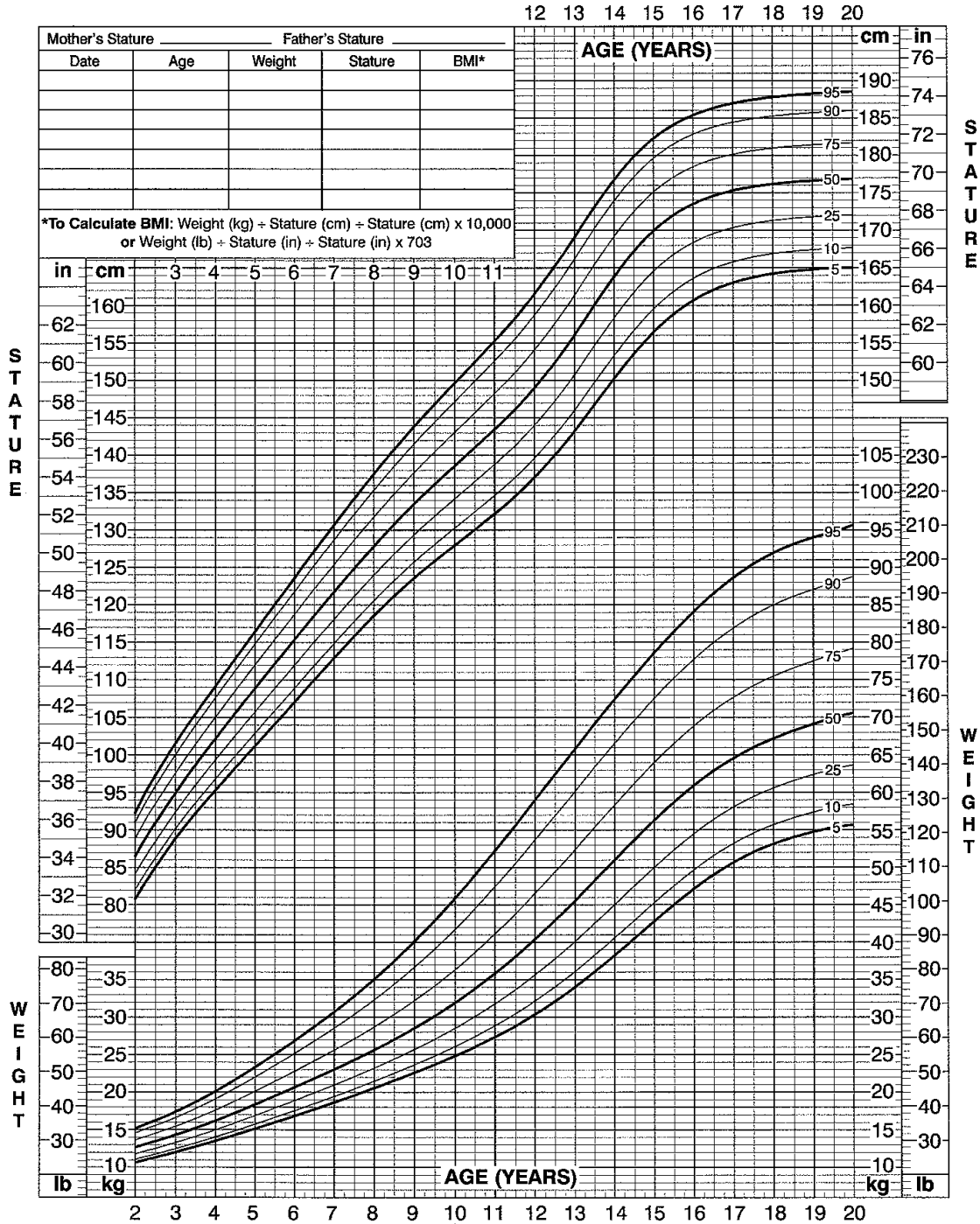




**2 to 20 years: Boys**  
**Stature-for-age and Weight-for-age percentiles**

NAME \_\_\_\_\_

RECORD # \_\_\_\_\_



Published May 30, 2000 (modified 11/21/00).  
 SOURCE: Developed by the National Center for Health Statistics in collaboration with  
 the National Center for Chronic Disease Prevention and Health Promotion (2000).  
<http://www.cdc.gov/growthcharts>















E. Medications and Dosing

**ACETAMINOPHEN (TYLENOL) DOSING**

**Children, approximate ages 0-11 years**

Use of weight to select dose is preferred. If weight is not available, base dosing on age. Give every 4-6 hours as needed. Do not exceed 5 doses in 24 hours.

Alternative: (Oral) 10-15 mg/kg/dose every 4-6 hours; or (rectal) 10-20 mg/kg/dose every 4-6 hours

Weight (lbs)	Age	Dosage (mg)
6-11	0-3 mo	40
12-17	4-11 mo	80
18-23	1-2 yr	120
24-35	2-3 yr	160
36-47	4-5 yr	240
48-59	6-8 yr	320
60-71	9-10 yr	400
72-95	11 yr	480

**Children, age 12 and older and Adults**

325-650 mg every 4-6 hours or 1000 mg 3-4 times per day; not to exceed 4 gm per day

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**IBUPROFEN (MOTRIN, ADVIL) DOSING**

**Children, approximately 0-11 years**

Use of weight to select dose is preferred. If weight is not available, base dosing on age. Give every 6-8 hours as needed. Do not exceed 4 doses in 24 hours. Check a drug book for dosing for children taking ibuprofen for chronic diseases such as JRA or cystic fibrosis.

Alternative: 4-10 mg/kg/dose every 6-8 hours.

Weight (lbs)	Age	Dosage (mg)
12-17	6-11 mo	50
18-23	12-23 mo	75
24-35	2-3 yr	100
35-47	4-5 yr	150
48-59	6-8 yr	200
60-71	9-10 yr	250
72-95	11 yr	300

**Children age 12 and older and Adults**

200-400 mg every 4-6 hours. Do not exceed 1.2 gm in 24 hours. See drug book for dosing for clients taking ibuprofen for chronic conditions.

## **TOPICALS**

**Bacitracin Ointment Apply QD-TID**  
**Calamine Lotion Apply QID**  
**Clotrimazole Cream 1% Apply BID**  
**Eucerin Cream Apply QD –BID**  
**Hydrocortisone Cream 1% Apply BID –QID**  
**Zinc Oxide Apply prn**

### **Guidelines for Distributing Children's Vitamins**

1. Child must be 2 years old or older
2. Assess parent's ability to store and dispense vitamins properly
3. Distribute by bottle only; don't dispense individual vitamins
4. Instruct parents in proper dosage
5. Review food pyramid and age appropriate dietary

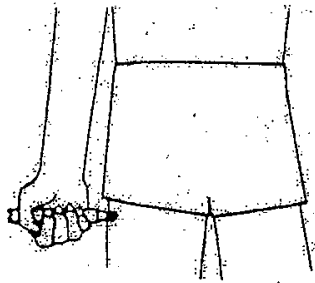
F. Epi-Pen Instructions:

Epi-Pen and Epi-Pen Junior Instructions:

1. Pull off gray activation cap.



2. Hold black tip near outer thigh (always apply to thigh).



3. Place firmly against thigh and press until Auto-injector mechanism functions. Hold in place and count to 10. The EpiPen unit should then be removed and taken with you to the Emergency Room. Massage the injection area for 20 seconds.

**TABLE 2. Summary of BLS ABCD Maneuvers for Infants, Children, and Adults**  
 (Newborn/Neonatal Information Not Included) *Note:* Maneuvers used only by healthcare providers are indicated by "HCP."

MANEUVER	ADULT Lay rescuer: >8 years HCP: Adolescent and older	CHILD Lay rescuers: 1 to 8 years HCP: 1 year to adolescent	INFANT Under 1 year of age
<b>ACTIVATE</b> Emergency Response Number (one rescuer)	Activate when victim found unresponsive <b>HCP:</b> if asphyxial arrest likely, call after 5 cycles (2 minutes) of CPR	Activate after performing 5 cycles of CPR For sudden, witnessed collapse, activate after verifying that victim unresponsive	
<b>AIRWAY</b>	Head tilt–chin lift (HCP: suspected trauma, use jaw thrust)		
<b>BREATHS</b> Initial	2 breaths at 1 second/ breath	2 effective breaths at 1 second/ breath	
<b>HCP:</b> Rescue breathing without chest compressions	10 to 12 breaths/min (approximately 1 breath every 5 to 6 seconds)	12 to 20 breaths/min (approximately 1 breath every 3 to 5 seconds)	
<b>HCP:</b> Rescue breaths for CPR with advanced airway	8 to 10 breaths/min (approximately 1 breath every 6 to 8 seconds)		
Foreign-body airway obstruction	Abdominal thrusts		Back slaps and chest thrusts
<b>CIRCULATION</b> <b>HCP:</b> Pulse check (≤10 sec)	Carotid ( <b>HCP</b> can use femoral in child)		Brachial or femoral
Compression landmarks	Center of chest, between nipples		Just below nipple line
Compression method Push hard and fast Allow complete recoil	<b>2 Hands:</b> Heel of 1 hand, other hand on top	<b>2 Hands:</b> Heel of 1 hand with second on top or <b>1 Hand:</b> Heel of 1 hand only	1 rescuer: 2 fingers <b>HCP,</b> 2 rescuers: 2 thumb–encircling hands
Compression depth	1½ to 2 inches	Approximately ⅓ to ½ the depth of the chest	
Compression rate	Approximately 100/min		
Compression-ventilation ratio	30:2 (1 or 2 rescuers)	30:2 (single rescuer) <b>HCP:</b> 15:2 (2 rescuers)	
<b>DEFIBRILLATION</b>			
AED	Use adult pads. Do not use child pads/child system. <b>HCP:</b> For out-of-hospital response may provide 5 cycles/2 minutes of CPR before shock if response > 4 to 5 minutes and arrest not witnessed.	<b>HCP:</b> Use AED as soon as available for sudden collapse and in-hospital. <b>All:</b> After 5 cycles of CPR (out-of-hospital). Use child pads/child system for child 1 to 8 years if available. If child pads/system not available, use adult AED and pads.	No recommendation for infants <1 year of age

<http://www.unc.edu/~rowlett/units/scales/glasgow.htm> accessed 3/24/2009

The Glasgow Coma Scale provides a score in the range 3-15; patients with scores of 3-8 are usually said to be in a coma. The total score is the sum of the scores in three categories. For adults the scores are as follows:

<b>Eye Opening Response</b>	Spontaneous--open with blinking at baseline	4 points
	Opens to verbal command, speech, or shout	3 points
	Opens to pain, not applied to face	2 points
	None	1 point
<b>Verbal Response</b>	Oriented	5 points
	Confused conversation, but able to answer questions	4 points
	Inappropriate responses, words discernible	3 points
	Incomprehensible speech	2 points
	None	1 point
<b>Motor Response</b>	Obeys commands for movement	6 points
	Purposeful movement to painful stimulus	5 points
	Withdraws from pain	4 points
	Abnormal (spastic) flexion, decorticate posture	3 points
	Extensor (rigid) response, decerebrate posture	2 points
	None	1 point

For children under 5, the verbal response criteria are adjusted as follow

SCORE	2 to 5 YRS	0 TO 23 Mos.
5	Appropriate words or phrases	Smiles or coos appropriately
4	Inappropriate words	Cries and consolable
3	Persistent cries and/or screams	Persistent inappropriate crying &/or screaming
2	Grunts	Grunts or is agitated or restless
1	No response	No response

You are welcome to [email the author](mailto:rowlett@email.unc.edu) (rowlett@email.unc.edu) with comments and suggestions.

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July 30, 2001

## **I. Home Preparations**

- ◇ Cold Pack  
 3 cups water  
 1 cup rubbing alcohol



Mix together and pour into a ziploc bag. Place in another ziploc bag and freeze

◇ Oral Rehydration Solution

1 quart water  
½ teaspoon salt  
8 teaspoons sugar

Mild Dehydration - 50 ml/kg over 4 hours

Moderate Dehydration - 100 ml/kg over 4-6 hours

◇ Saline Nose Drops

¼ teaspoon salt  
¼ teaspoon baking soda  
4 oz.(1/4c.) warm water

Warm water and mix. Let cool to room temperature. Use with bulb suction as needed. Mix new solution daily.

## **J. Hgb Parameters**

■ TABLE 405-1 Hematologic Values During Infancy and Childhood

Age	Hemoglobin (g/dL)		Hematocrit (%)		Reticulocytes (%)		MCV (fl)	Leukocytes (WBC/mm <sup>3</sup> )		Neutrophils (%)		Lymphocytes (%)	Eosinophils (%)	Monocytes (%)
	Mean	Range	Mean	Range	Mean	Lowest		Mean	Range	Mean	Range			
Cord blood	16.8	13.7-20.1	55	45-65	5.0	110	18,000	(9,000-30,000)	61	(40-80)	31	2	6	
2 wk	16.5	13.0-20.0	50	42-66	1.0		12,000	(5,000-21,000)	40		63	3	9	
3 mo	12.0	9.5-14.5	36	31-41	1.0		12,000	(6,000-18,000)	30		48	2	5	
6 mo to 6 yr	12.0	10.5-14.0	37	33-42	1.0	70-74	10,000	(6,000-15,000)	45		48	2	5	
7-12 yr	13.0	11.0-16.0	38	34-40	1.0	76-80	8,000	(4,500-13,500)	55		38	2	5	
Adult														
Female	14	12.0-16.0	42	37-47	1.6	80	7,500	(5,000-10,000)	55	(35-70)	35	3	7	
Male	16	14.0-18.0	47	42-52		80								

\*Relatively wide range.  
fl, femtoliters; MCV, mean corpuscular volume; WBC, white blood cells.

■ TABLE 405-2 Classification of Anemia

Microcytic	Normocytic	Macrocytic
<ul style="list-style-type: none"> <li>Iron deficiency</li> <li>Thalassemias</li> <li>Lead poisoning</li> <li>Chronic disease</li> <li>Infection</li> <li>Cancer</li> <li>Inflammation</li> <li>Renal disease</li> <li>Vitamin B<sub>6</sub> responsive</li> <li>Copper deficiency</li> <li>Sideroblastic (some)</li> <li>Hemoglobin E</li> </ul>	<ul style="list-style-type: none"> <li>Decreased production</li> <li>Aplastic anemia</li> <li>Congenital</li> <li>Acquired</li> <li>Pure red cell aplasia</li> <li>Congenital (Diamond-Blackfan)</li> <li>Acquired (transient erythroblastopenia)</li> <li>Bone marrow replacement</li> <li>Leukemia</li> <li>Tumors</li> <li>Storage diseases</li> <li>Osteopetrosis</li> <li>Myelofibrosis</li> <li>Blood loss</li> <li>Internal or external</li> </ul>	<ul style="list-style-type: none"> <li>Sequestration</li> <li>Hemolysis: Intrinsic RBC abnormalities</li> <li>Hemoglobinopathies</li> <li>Enzymopathies</li> <li>Membrane disorders</li> <li>Hereditary spherocytosis</li> <li>Acquired: Paroxysmal nocturnal hemoglobinuria</li> <li>Hemolysis: Extrinsic RBC abnormalities</li> <li>Immunologic</li> <li>Passive (hemolytic disease of the newborn)</li> <li>Active: Autoimmune</li> <li>Toxins</li> <li>Infections</li> <li>Microangiopathic</li> <li>Disseminated intravascular coagulation (DIC)</li> <li>Hemolytic uremic syndrome</li> <li>Hypertension</li> <li>Cardiac disease</li> </ul>

■ TABLE 405-3 Proposed Classification of Anemic Disorders Based on Red Blood Cell Mean (MCV) and Heterogeneity (RDW)<sup>†‡</sup>

Microcytic Homogeneous (MCV low, RDW normal) <sup>†</sup>	Microcytic Heterogeneous (MCV low, RDW high)	Normocytic Homogeneous (MCV normal, RDW normal)	Normocytic Heterogeneous (MCV normal, RDW high)	Macrocytic Homogeneous (MCV high, RDW normal)	Macrocytic Heterogeneous (MCV high, RDW high)
Heterozygous thalassemia Chronic disease	Iron deficiency Hb S-β-thalassemia; hemoglobin H; red cell fragmentation	Normal Chronic disease, chronic liver disease; nonanemic hemoglobinopathy (e.g., AS, AC); transfusion; chemotherapy; chronic myelocytic leukemia; hemorrhage; hereditary spherocytosis	Mixed deficiency Early iron deficiency anemia; anemic hemoglobinopathy (e.g., SS, SC); myelofibrosis; sideroblastic	Aplastic anemia Preleukemia	Folate deficiency Vitamin B <sub>12</sub> deficiency; immune hemolytic anemia; cold agglutinin; high count

\*Modified from Bessman JD, Gilmer P, Gardener F: Improved classification of anemias by MCV and RDW. *Am J Clin Pathol* 80:322, 1983.

†MCV = mean corpuscular volume.

‡RDW = red blood cell distribution width.

AS = sickle cell trait, AC = hemoglobin C trait, SS = sickle cell anemia, SC = hemoglobin SC disease.

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## High-Risk Groups

Certain factors identify persons at high risk for tuberculosis (TB) infection and/or for progression to TB disease. Persons in the high-risk groups listed in Table 1: **Persons at High Risk for Tuberculosis Infection and Progression to Tuberculosis Disease** are candidates for tuberculin skin testing.

Persons with risk factors from both columns may be at much higher risk than those with risk factors in only one column. For example, an individual born in a high-TB-prevalence country who is also infected with HIV infection is at a much higher risk of having or developing active TB than a US-born individual with HIV infection.

**TABLE 1: PERSONS AT HIGH RISK FOR TUBERCULOSIS INFECTION AND PROGRESSION TO TUBERCULOSIS DISEASE<sup>2</sup>**

For Tuberculosis (TB) Infection	For Progression to TB Disease <sup>3</sup>
<ul style="list-style-type: none"> <li>• High-priority contacts such as housemates or coworkers, or contacts of persons who have smear-positive pulmonary or laryngeal tuberculosis (TB)</li> <li>• Infants, children, and adolescents exposed to adults in high-risk categories</li> <li>• Recent immigrants (primarily &lt;5 years) from countries with high incidence of TB (Asian, African, Latin American, and Eastern European countries have TB rates 5–30 times higher than U.S. rates, and an increasing percentage of TB cases in the United States are occurring among immigrants from those countries)</li> <li>• Residents and employees of high-risk congregate settings (e.g., correctional institutions, nursing homes and other long-term care facilities providing care to high-risk residents and clients, and homeless shelters)</li> <li>• Some healthcare workers who serve high-risk clients, especially emergency departments, staff involved in high-risk procedures, and laboratories manipulating TB cultures</li> <li>• Some high-risk racial or ethnic minority populations, defined locally as having an increased prevalence of TB (in Washington State this group includes American Indians and Alaskan Natives)</li> <li>• Some medically underserved, low-income populations as defined locally (e.g., homeless, transient populations)</li> <li>• Persons who inject illicit drugs; any other locally identified high-risk substance abuse users</li> </ul>	<ul style="list-style-type: none"> <li>• Persons with HIV infection</li> <li>• Infants and children aged &lt;5 years</li> <li>• Persons infected with <i>Mycobacterium tuberculosis</i> within the previous 2 years</li> <li>• Persons with a history of untreated or inadequately treated TB disease</li> <li>• Persons with radiographic findings consistent with previous TB disease</li> <li>• Persons who use alcohol or illegal drugs (such as injection drugs or crack cocaine)</li> <li>• Persons with any of the following clinical conditions or other immunocompromising conditions:                         <ul style="list-style-type: none"> <li>• Silicosis</li> <li>• Diabetes mellitus</li> <li>• End-stage renal disease (ESRD)/chronic renal failure, hemodialysis</li> <li>• Some hematologic disorders (e.g., leukemia's and lymphomas)</li> <li>• Other malignancies (e.g., carcinoma of head, neck, or lung)</li> <li>• Body weight <math>\geq 10\%</math> below ideal body weight</li> <li>• Prolonged corticosteroid use</li> <li>• Use of other immunosuppressive treatments (e.g., prednisone or tumor necrosis factor-alpha [TNF-<math>\alpha</math>] antagonists)</li> <li>• Organ transplantation</li> <li>• Gastrectomy</li> <li>• Chronic malabsorption syndromes</li> <li>• Jejunioleal bypass</li> </ul> </li> </ul>

Source: Adapted from: CDC. Guidelines for preventing the transmission of *Mycobacterium tuberculosis* in health-care settings, 2005. *MMWR* 2005;54(No. RR-17):4–5; CDC. Targeted tuberculin testing and treatment of latent tuberculosis infection. *MMWR* 2000;49(No. RR-6):7–9. Also, Tuberculosis Infection Control: A Practical Manual for Preventing TB <http://www.nationaltbcenter.edu/products/index.cfm>

## VI. Tuberculosis (TB)

### Goal:

- To identify individuals who may have active TB disease and assure that timely and appropriate treatment is received and others are not put at risk.
- To identify individuals with latent TB infection (LTBI) and assure that timely and appropriate treatment is offered.
- To identify individuals at risk for TB disease in order provide education and counseling about prevention.

**Note:** TB screening is always contextual. In addition to symptoms, if the person belongs to certain risk groups or has certain medical conditions the level of concern or urgency may be higher. These factors help determine interpretation of skin test results as well as treatment.

**Review all four of the screening questions with the client to determine the urgency for intervention and to avoid the spread of TB to others.** The more positive answers you get to any of these questions, the more vigilant you need to be to assure timely and appropriate intervention. This can be from a PCP, HCHN nurse, or the TB Clinic. Always feel free to call the HCHN TB prevention nurse, Marcia, at 206-263-8340 if you have any questions or concerns.

When referring, always document any identified symptoms, risk factors including homelessness (see Questions 3 and 4 below), and/or medical conditions, and send this information with the patient to the provider.

Any client who is a known contact of a person with infectious TB should be evaluated by a PCP, the HCHN TB prevention nurse, Marcia (206-263-8340), or the TB Clinic (206-744-4579). It is understood that not all providers will know if a person is a known contact but if you have reason to think that a person may have been recently exposed to a case of infectious TB, contact Marcia or the TB Clinic.

Screening Questions	Why ask the question? What next?
<p>1. Have you ever had a TB skin test (TST*) before?                      What was the result?                      Have you ever taken medicine for TB?</p> <p>*TST and the PPD are the same tests. However, TST is the current term used for what has been referred to as PPD.</p>	<p>Even if a person states that their previous TST was positive, it's important to continue with symptom and risk questions (questions 2, 3, and 4) in order to advise about follow-up--<b>especially</b> if the person is a recent contact of an active case. A person <b>can</b> get TB twice. Remember that certain immunocompromising conditions (such as HIV) can cause a false negative response to a skin test. If person has had a prior positive skin test and has never taken medicine for LTBI but would like to, refer to PCP after asking all the questions.</p> <p>If the TST is negative now and was negative in the past, continue asking all the questions.</p> <p>Go to question 2.</p>

**TB Screening (continued)**

Screening Questions	Why ask the question? What next?
<p>2. Do you have any of the following symptoms?</p> <ul style="list-style-type: none"> <li>▪ Cough for more than 3 weeks</li> <li>▪ Unplanned weight loss</li> <li>▪ Night sweats—soaking the sheets</li> <li>▪ Fever for more than a week</li> <li>▪ Extreme weakness/fatigue</li> </ul>	<p>These are symptoms of active TB disease, which is contagious. <b>These questions are an essential part of screening anyone who has been exposed to an infectious case.</b> They are also essential questions to ask when making a diagnosis of LTBI.</p> <p>Even if the person answers "no" to all these questions AND they have a negative TST, continue.</p> <p>Go to question 3.</p>
<p>3. Does the person fall into any of the following risk</p>	<p>The answer to this question indicates the level of risk for TB and helps to accurately</p>

<p>groups:</p> <ul style="list-style-type: none"> <li>• Close contacts of a person with infectious TB</li> <li>• Persons who have immigrated from areas of the world with high rates of TB</li> <li>• New positive skin test within a two year period.</li> <li>• Groups with high rates of tuberculosis transmission, such as homeless persons, injection drug users, and persons with HIV infection</li> </ul>	<p>interpret skin test results. Remind the client that this information, including their history of homelessness, is important for their PCP to have, because it may influence decisions regarding their evaluation.</p> <p>For a fact sheet on targeted testing for TB and interpreting skin test results go to: <a href="http://www.cdc.gov/nchstp/tb/pubs/tbfactsheets/250005.htm">http://www.cdc.gov/nchstp/tb/pubs/tbfactsheets/250005.htm</a></p> <p>Even if the answer to these questions is "no", and the TST is negative, continue to the next question.</p> <p>Go to question 4.</p>
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**TB (continued)**

Screening Questions	Why ask the question? What next?
<p>3. continued</p> <ul style="list-style-type: none"> <li>▪ Persons who work or reside with people who are at high risk for TB in facilities or institutions such as hospitals, homeless shelters, correctional facilities, nursing homes, and residential homes for those with HIV</li> </ul>	

<p>4. Do you have any of the following medical conditions?</p> <ul style="list-style-type: none"> <li>▪ Head or neck cancer/ leukemia</li> <li>▪ Organ transplant</li> <li>▪ Severe kidney disease</li> <li>▪ Low body weight</li> <li>▪ Diabetes</li> <li>▪ HIV/AIDS</li> <li>▪ On high doses of immunosuppressive meds, e.g. steroids, chemo</li> <li>▪ Stomach or intestinal surgery</li> </ul>	<p>All of these conditions increase the risk for progression from TB infection to active TB disease. Having some of these conditions can influence both interpretation of skin test results and appropriate treatment. Certain immuno-compromising illnesses (such as HIV or cancer) can cause a false negative skin test response. These questions are important even if the TST is negative. Go to question 5.</p>
<p>5. What do I do with all this information?</p>	<p>Next steps:                  If high suspicion of active TB disease (cough for more than 3 weeks and 1 other TB symptom, + risk factors, esp. HIV) be aggressive! Ensure that timely and appropriate evaluation occurs. If, despite your best efforts, you are unable to get the client evaluated, call HCHN TB prevention nurse, Marcia, at 206-263-8340.</p>

**TB (continued)**

<p>5. continued</p>	<p>For a client who has a cough for more than 3 weeks and one other TB symptom, refer to PCP or HCHN nurse. Ensure evaluation as above. Call Marcia for assistance as needed.</p> <p>Any client who is a known contact of a person with infectious TB should be evaluated by PCP, HCHN nurse, or TB Clinic (206-744-4579).</p>
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	<p>Anyone who falls into a risk group or has one of the medical conditions above should be referred to PCP or HCHN nurse for counseling about TB prevention and possible evaluation of TB.</p> <p>If you have questions or concerns, feel free to call the HCHN TB prevention nurse, Marcia, at 206-263-8340</p>
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## L. HCHN Extraordinary Occurrence Report Form

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### Instructions for completing Extraordinary Occurrence Report Form

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The **Extraordinary Occurrence Report** form is used to assist the HCHN Quality Management Committee (QMC) in identifying trends in health & safety risks for HCHN providers, health trends among homeless patients/clients and trends in service system resulting in poor client outcomes. In order to be informed of occurrences, the QMC needs to be apprised of events that may or may not be reported to other agencies but about which HCHN should be involved.

The **Extraordinary Occurrence Report** form is to be completed by the HCHN Contractor and submitted to the HCHN Quality Management Coordinator as soon after an event as soon as possible but no longer than 30 days after the occurrence of the event. The HCHN Contractor may delegate the responsibility of completing the form to an appropriate employee.

#### Form Completion

**Agency Name:** The HCHN Contractor who has knowledge of the Extraordinary Occurrence should complete the report form.

**Name of Person Completing this Report:** May be the HCHN Contractor or an employee or a provider from within that Contractor's agency.

**Client HCHN ID Number or Staff Description:** For confidentiality reasons, please do not identify the person involved in the Extraordinary Occurrence by name. Use an HCHN ID for clients. In the case of staff description, please give as much information as possible while protecting provider confidentiality. Include, when possible, role or discipline of the provider (i.e. case manager, nurse), and shelter or site where episode took place.

**Type of Incident:**

- ♦ **Health & Safety** – This may include **exposures to a communicable disease** such as TB, a needle stick, an infectious disease outbreak (reportable to the Health Department such as salmonella or not such as chicken pox\*\*), disease in staff declining immunization; **exposure to chemical or environmental agents** such as an environmental trigger resulting in a serious asthma attack; **physical injury** such as a toddler falling from a second story window or a fall due to poor flooring; and **violent events, or the potential for violence** such that service delivery is interrupted. Any of these incidents may occur either to a client or to an HCHN provider.
- ♦ **System Coordination/Collaboration Gap** – Includes incidents that result in undo stress, harm or a loss of opportunity for clients because different agencies are not coordinating care or collaborating for the benefit of the client.
- ♦ **Death** – Report as much detail about the circumstances of any death of a homeless person whether or not the person had been a known HCHN client.

**Respond to Numbers 1 & 2 and/or 3 as appropriate.**

\*\*Report communicable disease outbreaks to HCHN Health & Safety Nurse – 206-263-8347.

Mail (401 Fifth Avenue, Seattle, WA 98104) or Fax (206-205-6236) Completed Reports to the HCHN QM Coordinator

**Health Care for the Homeless Network**  
401 Fifth Avenue, Suite 1000  
Seattle, WA 98104-1818  
206-296-5091 Fax 206-205-6236  
TTY Relay: 711  
www.kingcounty.gov/health



**Extraordinary Occurrence Report  
Quality Management Program**  
(See reverse for instructions for completing this form)

Agency Name \_\_\_\_\_

Name of person completing this report \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Client HCHN ID Number: \_\_\_\_\_ or Staff Description/Title: \_\_\_\_\_

Date of Incident: \_\_\_\_\_

Type of Incident:  Health / Safety  System Coordination/Collaboration Gap  Client Death

**1. Brief Description of the Incident** (provide as many specifics as possible, including location of incident description of persons involved, agency actions taken, etc. Do not identify client by name):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2. Report of Person's Current Condition:** \_\_\_\_\_

**3. If reporting of Death of a Homeless Client, complete as much of the following as possible:**

Cause of death: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

Describe HCHN Services Provided to Client: \_\_\_\_\_

How did we learn of Patient Death? \_\_\_\_\_

Did Patient have a Primary Provider?  No  Yes  Don't know

**4. Actions Recommended:** \_\_\_\_\_

**5. Quality Management Committee Review:** \_\_\_\_\_  
Chair, QMC \_\_\_\_\_ Date \_\_\_\_\_

## **STANDARDS**

## **Well Child Exam (EPSDT) Standard of Practice for HCHN Outreach Primary Care Providers and Registered Nurses**

### **Purpose**

To assure that children while homeless receive the appropriate levels of service related to the screening, diagnosis, and treatment for physical, mental, and dental health, and development issues.

### **Assuring an Appropriate Level of Service**

The HCHN outreach healthcare provider will determine if a child has had a well child visit or an EPSDT within the recommended time frame for the child's age. If the child:

- **Has a primary health care provider (PCP) and has a current EPSDT or WCC**

If the parent reports that the child has had a current EPSDT or a WCC, the HCHN provider will be asked to document this.

- **Has a primary health care provider and does not have a current EPSDT or WCC**

If the parent reports that the child has not had a current EPSDT or WCC, the HCHN provider will offer two options to the parent:

1. The child may return to the PCP for an EPSDT or a WCC. The HCHN provider will facilitate this.
2. The child may receive at least a Child Health Assessment if not an EPSDT by a HCHN Provider. The HCHN provider will communicate the findings of the assessment or EPSDT to the PCP. The HCHN provider will encourage the family to return to the PCP for further visits or will assist the family to access primary health care services.

- **Has no PCP and has not had a current EPSDT or WCC**

If the parent reports that the child has not had a current EPSDT or WCC, the child will receive at least a Child Health Assessment by a HCHN Provider. The HCHN Provider will assist the family to access primary health care services.

#### **Levels of Service by PCP**

\*\*The standard of care for performing Child Health Assessment or EPSDT for homeless children is that the child's comprehensive health and developmental history be taken by the provider from the parent or guardian.

#### **Prioritization with the following considerations**

Children at greatest risk for health problems should be prioritized. Children included in this category may be:

- Children not attending licensed day care or school. These children's development delays may not be identified.
- The child with identified and diagnosed or identified and undiagnosed special needs
- The child with chronic illness
- The child who has experienced extreme instability in their lives
- Parental concerns about growth and development
- Family with mental health or substance abuse issues

If the family is interested in the child participating in ECAP or Head Start refer for EPSDT as needed.

**WCC ALGORITHM**

Does every member have health coverage?

**NO**

Assist client in determining eligibility for various publicly available health coverage.

**YES**

Can parent state every child's PCP?

**ELIGIBLE?**

**NO**

Assist in identifying PCP.

**YES**

Has every child had an age-appropriate WCC?

**NO**

Assist in establishing community clinic.

**YES**

Establish with a PCP

**NO**

1. Assist with scheduling an appointment.

**YES**

F/U as needed

Pediatric Protocols

**CHILD HEALTH ASSESSMENT AND TEACHING**

AGE	0-6 WKS	2-3 MO	4-5 MO	6-7 MO	9-11 MO	12-14 MO	15-18 MO
<b>Growth</b>							
<b>OFC</b>	X	X	X	X	X	X	X
<b>Weight</b>	X	X	X	X	X	X	X
Length	X	X	X	X	X	X	X
Height							
<b>Denver II</b>	X	X	X	X	X	X	X
<b>Ped Symp Inv</b>							
<b>Vision (Strabismus)</b>	Gross	Gross	Gross	X	X	X	X
<b>Hearing</b>	Gross	Gross	Gross				
<b>Dental</b>				X	X	X	X
<b>ADL's</b>							
Eating	X	X	X	X	X	X	X
Elimination	X	X	X	X	X	X	X
Sleep	X	X	X	X	X	X	X
Behavior	X	X	X	X	X	X	x



Pediatric Protocols

<b>AGE</b>	<b>18-23 mo</b>	<b>24-35 mo</b>	<b>36-47 mo</b>	<b>48-59 mo</b>	<b>60-73 mo</b>	<b>7-9 yrs</b>	<b>9-11 yrs</b>
<b>Growth</b>							
<b>OFC</b>	X	X					
<b>Weight</b>	X	X	X	X	X	X	X
Length	X	X					
Height		X	X	X	X	X	X
<b>Denver II</b>	X	X	X	X			
<b>Ped Symp Inv</b>		X	X	X	X	X	X
Vision (Strabismus)	X	X	X	X	X	X	X
<b>Hearing</b>	X	X	X	X	X	X	X
<b>Dental</b>	X	X	X	X	X	X	X
<b>ADL's</b>							
Nutrition	X	X	X	X	X	X	X
Elimination	X	X	X	X	X	X	X
Sleep	X	X	X	X	X	X	X
Behavior	X	X	X	X	X	X	X

## **Immunization Standards**

### I. Immunization of Children:

- A. At every first encounter, providers will evaluate immunization status.
- B. If documentation is present, children will be immunized to the fullest level possible for their age, based on current immunization guidelines.
- C. If the parent cannot present adequate documentation, immunization documentation will be pursued and age appropriate immunizations will be administered based on the expected length of contact. (If the expected length of contact with the child is uncertain or the family is due to depart from the shelter, immunizations should be administered while the opportunity is present. If the child is expected to be available for a period of time, documentation should be pursued.)
- D. When a parent or guardian of a child identifies a primary care provider (PCP) of record, and
  - the parent verbalizes ability and understanding of the need to complete an immunization visit, and
  - the parent can easily access the PCP, the HCHN provider will refer to the PCP for immunizations.

### II. Immunization of Adults in Families and Single Adults In Shelters Served By Family Team Providers

- A. At every first encounter, adults in families should be assessed for compliance with current immunization guidelines.

**Recommended Immunization Schedule for Persons Aged 0–6 Years—UNITED STATES • 2008**  
*For those who fall behind or start late, see the catch-up schedule*

Vaccine ▼	Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19–23 months	2–3 years	4–6 years
Hepatitis B <sup>1</sup>	HepB	HepB	HepB	HepB	<i>see footnote 1</i>	HepB	HepB	HepB	HepB			
Rotavirus <sup>2</sup>			Rota	Rota	Rota							
Diphtheria, Tetanus, Pertussis <sup>3</sup>			DTaP	DTaP	DTaP	<i>see footnote 3</i>	DTaP	DTaP	DTaP			DTaP
Haemophilus influenzae type b <sup>4</sup>			Hib	Hib	Hib <sup>4</sup>	Hib	Hib	Hib	Hib			
Pneumococcal <sup>1</sup>			PCV	PCV	PCV	PCV	PCV	PCV	PCV		PPV	
Inactivated Poliovirus			IPV	IPV	IPV	IPV	IPV	IPV	IPV			IPV
Influenza <sup>6</sup>							Influenza (Yearly)	Influenza (Yearly)	Influenza (Yearly)			
Measles, Mumps, Rubella <sup>7</sup>							MMR	MMR	MMR			MMR
Varicella <sup>8</sup>							Varicella	Varicella	Varicella			Varicella
Hepatitis A <sup>9</sup>							HepA (2 doses)	HepA (2 doses)	HepA (2 doses)		HepA Series	
Meningococcal <sup>10</sup>												MCV4

Range of recommended ages

Certain high-risk groups

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2007, for children aged 0 through 6 years. Additional information is available at [www.cdc.gov/vaccines/recs/schedules](http://www.cdc.gov/vaccines/recs/schedules). Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. 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 other components of the vaccine are not

contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective Advisory Committee on Immunization Practices statement for detailed recommendations, including for high-risk conditions: <http://www.cdc.gov/vaccines/pubs/ACIP-list.htm>. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

**1. Hepatitis B vaccine (HepB).** (Minimum age: birth)  
At birth:

- Administer monovalent HepB to all newborns prior to hospital discharge.
- If mother is hepatitis B surface antigen (HBsAg) positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine the HBsAg status as soon as possible and if HBsAg positive, administer HBIG (no later than age 1 week).
- If mother is HBsAg negative, the birth dose can be delayed, in rare cases, with a provider's order and a copy of the mother's negative HBsAg laboratory report in the infant's medical record.

After the birth dose:

- The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at age 1–2 months. The final dose should be administered no earlier than age 24 weeks. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of at least 3 doses of a licensed HepB series, at age 9–18 months (generally at the next well-child visit).

4-month dose:

- It is permissible to administer 4 doses of HepB when combination vaccines are administered after the birth dose. If monovalent HepB is used for doses after the birth dose, a dose at age 4 months is not needed.

**2. Rotavirus vaccine (Rota).** (Minimum age: 6 weeks)

- Administer the first dose at age 6–12 weeks.
- Do not start the series later than age 12 weeks.
- Administer the final dose in the series by age 32 weeks. Do not administer any dose later than age 32 weeks.
- Data on safety and efficacy outside of these age ranges are insufficient.

**3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).** (Minimum age: 6 weeks)

- The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose.
- Administer the final dose in the series at age 4–6 years.

**4. Haemophilus influenzae type b conjugate vaccine (Hib).** (Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB<sup>®</sup> or ComVax<sup>®</sup> [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required.
- TriHIBit<sup>®</sup> (DTaP/Hib) combination products should not be used for primary immunization but can be used as boosters following any Hib vaccine in children age 12 months or older.

**5. Pneumococcal vaccine.** (Minimum age: 6 weeks for pneumococcal conjugate vaccine [PCV]; 2 years for pneumococcal polysaccharide vaccine [PPV])

- Administer one dose of PCV to all healthy children aged 24–59 months having any incomplete schedule.
- Administer PPV to children aged 2 years and older with underlying medical conditions.

**6. Influenza vaccine.** (Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])

- Administer annually to children aged 6–59 months and to all eligible close contacts of children aged 0–59 months.
- Administer annually to children 5 years of age and older with certain risk factors, to other persons (including household members) in close contact with persons in groups at higher risk, and to any child whose parents request vaccination.
- For healthy persons (those who do not have underlying medical conditions that predispose them to influenza complications) ages 2–49 years, either LAIV or TIV may be used.
- Children receiving TIV should receive 0.25 mL if age 6–35 months or 0.5 mL if age 3 years or older.
- Administer 2 doses (separated by 4 weeks or longer) to children younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time last season but only received one dose.

**7. Measles, mumps, and rubella vaccine (MMR).** (Minimum age: 12 months)

- Administer the second dose of MMR at age 4–6 years. MMR may be administered before age 4–6 years, provided 4 weeks or more have elapsed since the first dose.

**8. Varicella vaccine.** (Minimum age: 12 months)

- Administer second dose at age 4–6 years; may be administered 3 months or more after first dose.
- Do not repeat second dose if administered 28 days or more after first dose.

**9. Hepatitis A vaccine (HepA).** (Minimum age: 12 months)

- Administer to all children aged 1 year (i.e., aged 12–23 months). Administer the 2 doses in the series at least 6 months apart.
- Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepA is recommended for certain other groups of children, including in areas where vaccination programs target older children.

**10. Meningococcal vaccine.** (Minimum age: 2 years for meningococcal conjugate vaccine [MCV4] and for meningococcal polysaccharide vaccine [MPSV4])

- Administer MCV4 to children aged 2–10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high-risk groups. MPSV4 is also acceptable.
- Administer MCV4 to persons who received MPSV4 3 or more years previously and remain at increased risk for meningococcal disease.

The Recommended Immunization Schedules for Persons Aged 0–18 Years are approved by the Advisory Committee on Immunization Practices ([www.cdc.gov/vaccines/recs/acip](http://www.cdc.gov/vaccines/recs/acip)), the American Academy of Pediatrics (<http://www.aap.org>), and the American Academy of Family Physicians (<http://www.aafp.org>).

DEPARTMENT OF HEALTH AND HUMAN SERVICES • CENTERS FOR DISEASE CONTROL AND PREVENTION • SAFER • HEALTHIER • PEOPLE™

**Recommended Immunization Schedule for Persons Aged 7–18 Years—UNITED STATES • 2008**  
*For those who fall behind or start late, see the green bars and the catch-up schedule*

Vaccine ▼	Age ►	7–10 years	11–12 years	13–18 years
Diphtheria, Tetanus, Pertussis <sup>1</sup>		<i>see footnote 1</i>	<b>Tdap</b>	<b>Tdap</b>
Human Papillomavirus <sup>2</sup>		<i>see footnote 2</i>	<b>HPV (3 doses)</b>	<b>HPV Series</b>
Meningococcal <sup>3</sup>		<b>MCV4</b>	<b>MCV4</b>	<b>MCV4</b>
Pneumococcal <sup>4</sup>		<b>PPV</b>		
Influenza <sup>5</sup>		<b>Influenza (Yearly)</b>		
Hepatitis A <sup>6</sup>		<b>HepA Series</b>		
Hepatitis B <sup>7</sup>		<b>HepB Series</b>		
Inactivated Poliovirus <sup>8</sup>		<b>IPV Series</b>		
Measles, Mumps, Rubella <sup>9</sup>		<b>MMR Series</b>		
Varicella <sup>10</sup>		<b>Varicella Series</b>		

 Range of recommended ages  
 Catch-up immunization  
 Certain high-risk groups

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2007, for children aged 7–18 years. Additional information is available at [www.cdc.gov/vaccines/recs/schedules](http://www.cdc.gov/vaccines/recs/schedules). Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. 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 other components of the vaccine are not

contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective Advisory Committee on Immunization Practices statement for detailed recommendations, including for high-risk conditions: <http://www.cdc.gov/vaccines/pubs/ACIP-list.htm>. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

**1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).** (Minimum age: 10 years for BOOSTRIX® and 11 years for ADACEL™)

- Administer at age 11–12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a tetanus and diphtheria toxoids (Td) booster dose.
- 13–18-year-olds who missed the 11–12 year Tdap or received Td only are encouraged to receive one dose of Tdap 5 years after the last Td/DTaP dose.

**2. Human papillomavirus vaccine (HPV).** (Minimum age: 9 years)

- Administer the first dose of the HPV vaccine series to females at age 11–12 years.
- Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose.
- Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

**3. Meningococcal vaccine.**

- Administer MCV4 at age 11–12 years and at age 13–18 years if not previously vaccinated. MPSV4 is an acceptable alternative.
- Administer MCV4 to previously unvaccinated college freshmen living in dormitories.
- MCV4 is recommended for children aged 2–10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high-risk groups.
- Persons who received MPSV4 3 or more years previously and remain at increased risk for meningococcal disease should be vaccinated with MCV4.

**4. Pneumococcal polysaccharide vaccine (PPV).**

- Administer PPV to certain high-risk groups.

**5. Influenza vaccine.**

- Administer annually to all close contacts of children aged 0–59 months.
- Administer annually to persons with certain risk factors, health-care workers, and other persons (including household members) in close contact with persons in groups at higher risk.

- Administer 2 doses (separated by 4 weeks or longer) to children younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time last season but only received one dose.
- For healthy nonpregnant persons (those who do not have underlying medical conditions that predispose them to influenza complications) ages 2–49 years, either LAIV or TIV may be used.

**6. Hepatitis A vaccine (HepA).**

- Administer the 2 doses in the series at least 6 months apart.
- HepA is recommended for certain other groups of children, including in areas where vaccination programs target older children.

**7. Hepatitis B vaccine (HepB).**

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for children aged 11–15 years.

**8. Inactivated poliovirus vaccine (IPV).**

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if the third dose was administered at age 4 years or older.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age.

**9. Measles, mumps, and rubella vaccine (MMR).**

- If not previously vaccinated, administer 2 doses of MMR during any visit, with 4 or more weeks between the doses.

**10. Varicella vaccine.**

- Administer 2 doses of varicella vaccine to persons younger than 13 years of age at least 3 months apart. Do not repeat the second dose if administered 28 or more days following the first dose.
- Administer 2 doses of varicella vaccine to persons aged 13 years or older at least 4 weeks apart.

The Recommended Immunization Schedules for Persons Aged 0–18 Years are approved by the Advisory Committee on Immunization Practices ([www.cdc.gov/vaccines/recs/acip](http://www.cdc.gov/vaccines/recs/acip)), the American Academy of Pediatrics (<http://www.aap.org>), and the American Academy of Family Physicians (<http://www.aafp.org>).

## Catch-up Immunization Schedule

UNITED STATES • 2008

### for Persons Aged 4 Months–18 Years Who Start Late or Who Are More Than 1 Month Behind

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age.

CATCH-UP SCHEDULE FOR PERSONS AGED 4 MONTHS–6 YEARS					
Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Hepatitis B <sup>1</sup>	Birth	4 weeks	8 weeks (and 16 weeks after first dose)		
Rotavirus <sup>2</sup>	6 wks	4 weeks	4 weeks		
Diphtheria, Tetanus, Pertussis <sup>3</sup>	6 wks	4 weeks	4 weeks	6 months	6 months <sup>3</sup>
<i>Haemophilus influenzae</i> type b <sup>4</sup>	6 wks	4 weeks if first dose administered at younger than 12 months of age <b>8 weeks (as final dose)</b> if first dose administered at 12–14 months <b>No further doses needed</b> if first dose administered at 15 months of age or older	4 weeks <sup>4</sup> if current age is younger than 12 months <b>8 weeks (as final dose)<sup>4</sup></b> if current age is 12 months or older and second dose administered at younger than 15 months of age <b>No further doses needed</b> if previous dose administered at age 15 months or older	<b>8 weeks (as final dose)</b> This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months	
Pneumococcal <sup>5</sup>	6 wks	4 weeks if first dose administered at younger than 12 months of age <b>8 weeks (as final dose)</b> if first dose administered at age 12 months or older or current age 24–59 months <b>No further doses needed</b> for healthy children if first dose administered at age 24 months or older	4 weeks if current age is younger than 12 months <b>8 weeks (as final dose)</b> if current age is 12 months or older <b>No further doses needed</b> for healthy children if previous dose administered at age 24 months or older	<b>8 weeks (as final dose)</b> This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months	
Inactivated Poliovirus <sup>6</sup>	6 wks	4 weeks	4 weeks	4 weeks <sup>6</sup>	
Measles, Mumps, Rubella <sup>7</sup>	12 mos	4 weeks			
Varicella <sup>8</sup>	12 mos	3 months			
Hepatitis A <sup>9</sup>	12 mos	6 months			
CATCH-UP SCHEDULE FOR PERSONS AGED 7–18 YEARS					
Tetanus, Diphtheria/ Tetanus, Diphtheria, Pertussis <sup>10</sup>	7 yrs <sup>10</sup>	4 weeks	4 weeks if first dose administered at younger than 12 months of age 6 months if first dose administered at age 12 months or older	6 months if first dose administered at younger than 12 months of age	
Human Papillomavirus <sup>11</sup>	9 yrs	4 weeks	12 weeks (and 24 weeks after the first dose)		
Hepatitis A <sup>9</sup>	12 mos	6 months			
Hepatitis B <sup>1</sup>	Birth	4 weeks	8 weeks (and 16 weeks after first dose)		
Inactivated Poliovirus <sup>6</sup>	6 wks	4 weeks	4 weeks	4 weeks <sup>6</sup>	
Measles, Mumps, Rubella <sup>7</sup>	12 mos	4 weeks			
Varicella <sup>8</sup>	12 mos	4 weeks if first dose administered at age 13 years or older 3 months if first dose administered at younger than 13 years of age			

**1. Hepatitis B vaccine (HepB).**

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for children aged 11–15 years.

**2. Rotavirus vaccine (Rota).**

- Do not start the series later than age 12 weeks.
- Administer the final dose in the series by age 32 weeks.
- Do not administer a dose later than age 32 weeks.
- Data on safety and efficacy outside of these age ranges are insufficient.

**3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).**

- The fifth dose is not necessary if the fourth dose was administered at age 4 years or older.
- DTaP is not indicated for persons aged 7 years or older.

**4. Haemophilus influenzae type b conjugate vaccine (Hib).**

- Vaccine is not generally recommended for children aged 5 years or older.
- If current age is younger than 12 months and the first 2 doses were PRP-OMP (PedvaxHIB® or ComVax® [Merck]), the third (and final) dose should be administered at age 12–15 months and at least 8 weeks after the second dose.
- If first dose was administered at age 7–11 months, administer 2 doses separated by 4 weeks plus a booster at age 12–15 months.

**5. Pneumococcal conjugate vaccine (PCV).**

- Administer one dose of PCV to all healthy children aged 24–59 months having any incomplete schedule.
- For children with underlying medical conditions, administer 2 doses of PCV at least 8 weeks apart if previously received less than 3 doses, or 1 dose of PCV if previously received 3 doses.

**6. Inactivated poliovirus vaccine (IPV).**

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age 4 years or older.

- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age.
- IPV is not routinely recommended for persons aged 18 years and older.

**7. Measles, mumps, and rubella vaccine (MMR).**

- The second dose of MMR is recommended routinely at age 4–6 years but may be administered earlier if desired.
- If not previously vaccinated, administer 2 doses of MMR during any visit with 4 or more weeks between the doses.

**8. Varicella vaccine.**

- The second dose of varicella vaccine is recommended routinely at age 4–6 years but may be administered earlier if desired.
- Do not repeat the second dose in persons younger than 13 years of age if administered 28 or more days after the first dose.

**9. Hepatitis A vaccine (HepA).**

- HepA is recommended for certain groups of children, including in areas where vaccination programs target older children. See *MMWR* 2006;55(No. RR-7):1–23.

**10. Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).**

- Tdap should be substituted for a single dose of Td in the primary catch-up series or as a booster if age appropriate; use Td for other doses.
- A 5-year interval from the last Td dose is encouraged when Tdap is used as a booster dose. A booster (fourth) dose is needed if any of the previous doses were administered at younger than 12 months of age. Refer to ACIP recommendations for further information. See *MMWR* 2006;55(No. RR-3).

**11. Human papillomavirus vaccine (HPV).**

- Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

Summary of Recommendations for Childhood and Adolescent Immunization (Page 1 of 3)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
<b>Hepatitis B</b> <i>Give IM</i>	<ul style="list-style-type: none"> <li>Vaccinate all children age 0 through 18yrs.</li> <li>Vaccinate all newborns with monovalent vaccine prior to hospital discharge. Give dose #2 at age 1–2m and the final dose at age 6–18m (the last dose in the infant series should not be given earlier than age 24wks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine or up to 3 doses of Comvax (ages 2m, 4m, 12–15m) or Pediarix (ages 2m, 4m, 6m), which may result in giving a total of 4 doses of hepatitis B vaccine.</li> <li>If mother is HBsAg-positive: give the newborn HBIG + dose #1 within 12hrs of birth; complete series at age 6m or, if using Comvax, at age 12–15m.</li> <li>If mother's HBsAg status is unknown: give the newborn dose #1 within 12hrs of birth. If mother is subsequently found to be HBsAg positive, give infant HBIG within 7d of birth and follow the schedule for infants born to HBsAg-positive mothers.</li> </ul>	<ul style="list-style-type: none"> <li>Do not restart series, no matter how long since previous dose.</li> <li>3-dose series can be started at any age.</li> <li>Minimum spacing between doses: 4wks between #1 and #2, 8wks between #2 and #3, and at least 16wks between #1 and #3 (e.g., 0-, 2-, 4m; 0-, 1-, 4m).</li> </ul>	<p><b>Contraindication</b></p> <ul style="list-style-type: none"> <li>Previous anaphylaxis to this vaccine or to any of its components.</li> </ul> <p><b>Precaution</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> </ul>
<b>DTap, DT</b> (Diphtheria, tetanus, acellular pertussis) <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give to children at ages 2m, 4m, 6m, 15–18m, 4–6yrs.</li> <li>May give dose #1 as early as age 6wks.</li> <li>May give #4 as early as age 12m if 6m have elapsed since #3 and the child is unlikely to return at age 15–18m.</li> <li>Do not give DTap/DtP to children age 7yrs and older.</li> <li>If possible, use the same DTap product for all doses.</li> </ul>	<ul style="list-style-type: none"> <li>#2 and #3 may be given 4wks after previous dose.</li> <li>#4 may be given 6m after #3.</li> <li>If #4 is given before 4th birthday, wait at least 6m for #5 (age 4–6yrs).</li> <li>If #4 is given after 4th birthday, #5 is not needed.</li> <li>If never vaccinated with tetanus- and diphtheria-containing vaccine: give Td dose #1 now, dose #2 4wks later, and dose #3 6m after #2, then give booster every 10yrs. A 1-time Tdap may be substituted for any dose in the series, preferably as dose #1.</li> <li>Intervals of 2yrs or less between Td and Tdap may be used.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylaxis to this vaccine or to any of its components.</li> <li>For DTap/Tdap only: encephalopathy within 7d after DTP/DtAP.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>G Guillain-Barré syndrome within 6wks after previous dose of tetanus toxoid-containing vaccine.</li> <li>For DTap only: Any of these events following a previous dose of DTP/DtAP: 1) temperature of 105°F (40.5°C) or higher within 48hrs; 2) continuous crying for 3hrs or more within 48hrs; 3) collapse or shock-like state within 48hrs; 4) convulsion with or without fever within 3d.</li> <li>For DTap/Tdap only: Unstable neurologic disorder.</li> <li>For Td/Tdap only: History of Arthus reaction following a prior dose of tetanus- and/or diphtheria-toxoid-containing vaccine, including MCV4.</li> </ul> <p><b>Note:</b> Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester.</p>
<b>Td, Tdap</b> (Tetanus, diphtheria, acellular pertussis) <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give 1-time Tdap dose to adolescents age 11–12yrs if 5yrs have elapsed since last dose DTap/DTP; boost every 10yrs with Td.</li> <li>Give 1-time dose of Tdap to all adolescents who have not received previous Tdap. Special efforts should be made to give Tdap to persons age 11yrs and older who are             <ul style="list-style-type: none"> <li>in contact with infants younger than age 12m.</li> <li>healthcare workers with direct patient contact.</li> </ul> </li> <li>In pregnancy, when indicated, give Td or Tdap in 2nd or 3rd trimester. If not administered during pregnancy, give Tdap in immediate postpartum period.</li> </ul>	<ul style="list-style-type: none"> <li>All doses should be separated by at least 4wks.</li> <li>If dose #3 is given after 4th birthday, dose #4 is not needed.</li> </ul>	<p><b>Contraindication</b></p> <ul style="list-style-type: none"> <li>Previous anaphylaxis to this vaccine or to any of its components.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Pregnancy.</li> </ul>
<b>Polio</b> (IPV) <i>Give SC or IM</i>	<ul style="list-style-type: none"> <li>Give to children at ages 2m, 4m, 6–18m, 4–6yrs.</li> <li>May give dose #1 as early as age 6wks.</li> <li>Not routinely recommended for those age 18yrs and older (except certain travelers).</li> </ul>	<ul style="list-style-type: none"> <li>Minimum spacing between doses: 4wks between #1 and #2; 12 wks between #2 and #3. Overall, there must be at least 24wks between doses #1 and #3.</li> </ul>	<p><b>Contraindication</b></p> <ul style="list-style-type: none"> <li>Previous anaphylaxis to this vaccine or to any of its components.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Pregnancy.</li> </ul>
<b>Human papilloma-virus</b> (HPV) <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give 3-dose series to girls at age 11–12yrs on a 0, 2, 6m schedule. (May be given as early as age 9yrs.)</li> <li>Vaccinate all older girls and women (through age 26yrs) who were not previously vaccinated.</li> </ul>		<p><b>Contraindication</b></p> <ul style="list-style-type: none"> <li>Previous anaphylaxis to this vaccine or to any of its components.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Pregnancy.</li> </ul>

\*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of the recommendations, call the CDC-INFO Contact Center at (800) 232-4636; visit CDC's website at [www.cdc.gov/vaccines/pubs/ACIP-list.htm](http://www.cdc.gov/vaccines/pubs/ACIP-list.htm); or visit the Immunization Action

Technical content reviewed by the Centers for Disease Control and Prevention, May 2005. Coalition (IAC) website at [www.immunize.org/acip](http://www.immunize.org/acip). This table is revised periodically. Visit IAC's website at [www.immunize.org/childroles](http://www.immunize.org/childroles) to make sure you have the most current version.

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www.immunize.org/cag/dtp2010.pdf • Item #P2010 (5/08)

**Summary of Recommendations for Childhood and Adolescent Immunization (Page 2 of 3)**

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccine administration and related issues	Contraindications and precautions (mild illness is not a contraindication)
<b>Varicella (Var)</b> (Chickenpox) <i>Give SC</i>	<ul style="list-style-type: none"> <li>• Give dose #1 at age 12–15m.</li> <li>• Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 3m since dose #1.</li> <li>• Give a routine second dose to all older children and adolescents with history of only 1 dose.</li> <li>• MMRV may be used in children age 12m through 12yrs.</li> </ul>	<ul style="list-style-type: none"> <li>• If younger than age 13yrs, space dose #1 and #2 at least 3m apart. If age 13yrs or older, space at least 4wks apart.</li> <li>• May use as postexposure prophylaxis if given within 5d.</li> <li>• If Var and either MMR, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Children immunocompromised because of high doses of systemic steroids, cancer, leukemia, lymphoma, or immunodeficiency not related to HIV.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement <i>General Recommendations on Immunization</i>* regarding time to wait before vaccinating.</li> </ul> <p>Note: For patients with humoral immunodeficiency, HIV infection, or leukemia, or for patients on high doses of systemic steroids, see ACIP recommendations*.</p>
<b>MMR</b> (Measles, mumps, rubella) <i>Give SC</i>	<ul style="list-style-type: none"> <li>• Give dose #1 at age 12–15m.</li> <li>• Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 4wks since dose #1.</li> <li>• If a dose was given before age 12m, it doesn't count as the first dose, so give #1 at age 12–15m with a minimum interval of 4wks between the invalid dose and dose #1.</li> <li>• MMRV may be used in children age 12m through 12yrs.</li> </ul>	<ul style="list-style-type: none"> <li>• If MMR and either Var, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</li> <li>• When using MMR for both doses, minimum interval is 4wks.</li> <li>• When using MMRV for both doses, minimum interval is 3m.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Severe immunodeficiency (e.g., hematologic and solid tumors; congenital immunodeficiency; long-term immunosuppressive therapy, or severely symptomatic HIV).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, or immune globulin given in past 11m or if on high-dose immunosuppressive therapy, see ACIP statement <i>General Recommendations on Immunization</i>* regarding time to wait before vaccinating.</li> <li>• History of thrombocytopenia or thrombocytopenic purpura.</li> </ul> <p>Note: MMR is not contraindicated if a PPD (tuberculosis skin test) was recently applied. If PPD and MMR not given on same day, delay PPD for 4–6wks after MMR.</p>
<b>Influenza</b> Trivalent inactivated influenza vaccine (TIV) <i>Give IM</i> Live attenuated influenza vaccine (LAIV) <i>Give intranasally</i>	<ul style="list-style-type: none"> <li>• Vaccinate all persons age 6m or older, including school-aged children, wanting to reduce their risk of becoming ill with influenza or of spreading it to others.</li> <li>• Vaccinate all children age 6–59m, as well as all siblings and household contacts of children age 0–59m.</li> <li>• Vaccinate persons age 5yrs and older who             <ul style="list-style-type: none"> <li>- have a risk factor (e.g., pregnancy, heart disease, diabetes, renal dysfunction, hemoglobinopathy, immunosuppression, on long-term aspirin therapy, or have a condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration) or live in a chronic-care facility.</li> <li>- live or work with at-risk people as listed above.</li> </ul> </li> <li>• LAIV may be given to healthy, non-pregnant persons age 2–49yrs.</li> <li>• Give 2 doses to first-time vaccinees age 6m through 8yrs, spaced 4wks apart.</li> <li>• For TIV, give 0.25 mL dose to children age 6–35m and 0.5 mL dose if age 3yrs and older.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not begin series in infants older than age 12wks.</li> <li>• Dose #2 and #3 may be given 4wks after previous dose.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine, to any of its components, or to eggs.</li> <li>• For LAIV only: Pregnancy, asthma, reactive airway disease, or other chronic disorder of the pulmonary or cardiovascular systems; an underlying medical condition, including metabolic diseases such as diabetes, renal dysfunction, and hemoglobinopathies; a known or suspected immune deficiency disease or receiving immunosuppressive therapy.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• History of Guillain-Barré syndrome within 6wks of a previous influenza vaccination.</li> </ul>
<b>Rotavirus (Rota)</b> <i>Give orally</i>	<ul style="list-style-type: none"> <li>• Give a 3-dose series at age 2m, 4m, 6m.</li> <li>• May give dose #1 as early as age 6wks.</li> <li>• Give dose #3 no later than age 32wks.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not begin series in infants older than age 12wks.</li> <li>• Dose #2 and #3 may be given 4wks after previous dose.</li> </ul>	<p><b>Contraindication</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylaxis to this vaccine or to any of its components.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• Altered immunocompetence.</li> <li>• Moderate to severe acute gastroenteritis or chronic gastrointestinal disease.</li> <li>• History of intussusception.</li> </ul>

**Summary of Recommendations for Childhood and Adolescent Immunization** (Page 3 of 3)

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
<b>Hib</b> ( <i>Haemophilus influenzae</i> type b) Give IM	<ul style="list-style-type: none"> <li>ActHib (PRP-T); give at age 2m, 4m, 6m, 12-15m (booster dose).</li> <li>PedvaxHIB or Comvax (containing PRP-OMP): give at age 2m, 4m, 12-15m.</li> <li>Dose #1 of Hib vaccine may be given no earlier than age 6wks.</li> <li>The last dose (booster dose) is given no earlier than age 12m and a minimum of 8wks after the previous dose.</li> <li>Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered for dose #1 and dose #2, a total of 3 doses are necessary to complete the primary series in infants.</li> <li>Any Hib vaccine may be used for the booster dose.</li> <li>Hib is not routinely given to children age 5yrs and older.</li> </ul>	<p><b>All Hib vaccines:</b></p> <ul style="list-style-type: none"> <li>If #1 was given at 12-14m, give booster in 8wks.</li> <li>Give only 1 dose to unvaccinated children from age 15m to 5yrs.</li> </ul> <p><b>ActHib:</b></p> <ul style="list-style-type: none"> <li>#2 and #3 may be given 4wks after previous dose.</li> <li>If #1 was given at age 7-11m, only 3 doses are needed; #2 is given 4-8wks after #1, then boost at age 12-15m (wait at least 8wks after dose #2).</li> </ul> <p><b>PedvaxHIB and Comvax:</b></p> <ul style="list-style-type: none"> <li>#2 may be given 4wks after dose #1.</li> </ul>	<p><b>Contraindication</b> Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<b>Pneumo. conjugate</b> (PCV) Give IM	<ul style="list-style-type: none"> <li>Give at ages 2m, 4m, 6m, 12-15m.</li> <li>Dose #1 may be given as early as age 6wks.</li> <li>Give 1 dose to unvaccinated healthy children age 24-59m.</li> <li>Give 2 doses at least 8wks apart to unvaccinated high-risk** children age 24-59m.</li> <li>PCV is not routinely given to children age 5yrs and older.</li> </ul> <p><b>**High-risk:</b> Those with sickle cell disease; anatomic/functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes; cerebrospinal fluid leaks; HIV infection; immunosuppression; or who have or will have a cochlear implant.</p>	<ul style="list-style-type: none"> <li>For age 7-11m: If history of 0-2 doses, give additional doses 4wks apart with no more than 3 total doses by age 12m; then give booster 8wks later.</li> <li>For age 12-23m: If 0-1 dose before age 12m, give 2 doses at least 8wks apart. If 2-3 doses before age 12m, give 1 dose at least 8wks after previous dose.</li> <li>For age 24-59m: If patient has had no previous doses, or has a history of 1-3 doses given before age 12m but no booster dose, or has a history of only 1 dose given at age 12-23m, give 1 dose now.</li> </ul>	<p><b>Contraindication</b> Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<b>Pneumo. polysacch.</b> (PPV) Give IM or SC	<ul style="list-style-type: none"> <li>Give 1 dose at least 8wks after final dose of PCV to high-risk children age 2yrs and older.</li> <li>For children who are immunocompromised or have sickle cell disease or functional or anatomic asplenia, give a 2nd dose of PPV 3-5yrs after previous PPV (consult ACIP PPV recommendations [MMWR 1997;46 [RR-8] for details*).</li> </ul>		<p><b>Contraindication</b> Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<b>Hepatitis A</b> Give IM	<ul style="list-style-type: none"> <li>Give 2 doses to all children at age 1yr (12-23m) spaced 6m apart.</li> <li>Vaccinate all children and adolescents age 2 years and older who             <ul style="list-style-type: none"> <li>Live in a state, county, or community with a routine vaccination program already in place for children age 2yrs and older.</li> <li>Travel anywhere except U.S., W. Europe, N. Zealand, Australia, Canada, or Japan.</li> <li>Wish to be protected from HAV infection.</li> <li>Have chronic liver disease, clotting factor disorder, or are MSM adolescents.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Minimum interval between doses is 6m.</li> <li>Consider routine vaccination of children age 2yrs and older in areas with no existing program.</li> </ul>	<p><b>Contraindication</b> Previous anaphylaxis to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>
<b>Meningococcal conjugate</b> (MCV4) Give IM <b>polysaccharide</b> (MPSV) Give SC	<ul style="list-style-type: none"> <li>Give 1-time dose of MCV4 to adolescents age 11 through 18yrs.</li> <li>Vaccinate all college freshmen living in dorms who have not been vaccinated.</li> <li>Vaccinate all children age 2yrs and older who have any of the following risk factors (MCV4 is preferable to MPSV):             <ul style="list-style-type: none"> <li>Anatomic or functional asplenia, or terminal complement component deficiencies.</li> <li>Travel to, or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of Sub-Saharan Africa).</li> </ul> </li> </ul>	<p>If previously vaccinated with MPSV and risk continues, give MCV4 5yrs after MPSV.</p>	<p><b>Contraindication</b> Previous anaphylaxis to this vaccine or to any of its components, including diphtheria toxoid (for MCV4).</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>For MCV4 only: history of Guillain-Barré syndrome (GBS).</li> </ul>



Patient name: \_\_\_\_\_ Date of birth: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 (mo.) (day) (yr.)

## Screening Questionnaire for Child and Teen Immunization



**For parents/guardians:** The following questions will help us determine which vaccines your child may be given today. If you answer "yes" to any question, it does not necessarily mean your child should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Is the child sick today?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the child have allergies to medications, food, or any vaccine?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Has the child had a serious reaction to a vaccine in the past?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Has the child had a health problem with asthma, lung disease, heart disease, kidney disease, metabolic disease (e.g., diabetes), or a blood disorder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If the child to be vaccinated is between the ages of 2 and 4 years, has a healthcare provider told you that the child had wheezing or asthma in the past 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the child had a seizure, brain, or other nervous system problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the child have cancer, leukemia, AIDS, or any other immune system problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Has the child taken cortisone, prednisone, other steroids, or anticancer drugs, or had x-ray treatments in the past 3 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Has the child received a transfusion of blood or blood products, or been given a medicine called immune (gamma) globulin in the past year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is the child/teen pregnant or is there a chance she could become pregnant during the next month?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Has the child received vaccinations in the past 4 weeks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Form completed by: \_\_\_\_\_ Date: \_\_\_\_\_

Form reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Did you bring your child's immunization record card with you?**      yes  no

It is important to have a personal record of your child's vaccinations. If you don't have a personal record, ask the child's healthcare provider to give you one with all your child's vaccinations on it. Keep this record in a safe place and bring it with you every time you seek medical care for your child. Your child will need this important document for the rest of his or her life to enter day care or school, for employment, or for international travel.

Technical content reviewed by the Centers for Disease Control and Prevention, February 2008

www.immunize.org/catg.d/p4060.pdf • Item #P4060 (2,08)

## Information for Health Professionals about the Screening Questionnaire for Child & Teen Immunization

Are you interested in knowing why we included a certain question on the Screening Questionnaire? If so, read the information below. If you want to find out even more, consult the references listed at the bottom of this page.

### 1. Is the child sick today?

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events (1, 2). However, as a precaution with moderate or severe acute illness, all vaccines should be delayed until the illness has improved. Mild illnesses (such as otitis media, upper respiratory infections, and diarrhea) are NOT contraindications to vaccination. Do not withhold vaccination if a person is taking antibiotics.

### 2. Does the child have allergies to medications, food, or any vaccine?

History of anaphylactic reaction such as hives (urticaria), wheezing or difficulty breathing, or circulatory collapse or shock (not fainting) from a previous dose of vaccine or vaccine component is a contraindication for further doses. For example, if a person experiences anaphylaxis after eating eggs, do not administer influenza vaccine, or if a person has anaphylaxis after eating gelatin, do not administer MMR, MMRV, or varicella vaccine. Local reactions (e.g., a red eye following instillation of ophthalmic solution) are not contraindications. For an extensive table of vaccine components, see reference 3.

### 3. Has the child had a serious reaction to a vaccine in the past?

History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication for subsequent doses (1). History of encephalopathy within 7 days following DTP/DTaP is a contraindication for further doses of pertussis-containing vaccine. Precautions to DTaP (not Tdap) include the following: (a) seizure within 3 days of a dose, (b) pale or limp episode or collapse within 48 hours of a dose, (c) continuous crying for 3 hours within 48 hours of a dose, and (d) fever of 105°F (40°C) within 48 hours of a previous dose. There are other adverse events that might have occurred following vaccination that constitute contraindications or precautions to future doses. Under normal circumstances, vaccines are deferred when a precaution is present. However, situations may arise when the benefit outweighs the risk (e.g., during a community pertussis outbreak).

### 4. Has the child had a health problem with asthma, lung disease, heart disease, kidney disease, metabolic disease (e.g., diabetes), or a blood disorder?

Children with any of the health conditions listed above should not be given the intranasal, live attenuated influenza vaccine (LAIV). These children should be vaccinated with the injectable influenza vaccine.

### 5. If the child to be vaccinated is between the ages of 2 and 4 years, has a healthcare provider told you that the child had wheezing or asthma in the past 12 months?

Children who have had a wheezing episode within the past 12 months should not be given the live attenuated influenza vaccine. Instead, these children should be given the inactivated influenza vaccine.

### 6. Has the child had a seizure, brain, or other nervous system problem?

DTaP and Tdap are contraindicated in children who have a history of encephalopathy within 7 days following DTP/DTaP. An unstable progressive neurologic problem is a precaution to the use of DTaP and Tdap. For children with stable neurologic disorders (including seizures) unrelated to vaccination, or for children with a family history of seizure, vaccinate as usual but consider the use of acetaminophen or ibuprofen to minimize fever. A history of Guillain-Barré syndrome (GBS) is a consideration with the following: 1) Td/Tdap: if GBS has occurred within 6 weeks of a tetanus-containing vaccine and decision is made to continue vaccination, give age-appropriate Tdap instead of Td if no history of prior Tdap; 2) Influenza vaccine (TIV or LAIV): if GBS has occurred within 6 weeks of a prior influenza vaccination, vaccinate with TIV if at high risk for severe influenza complications; 3) MCV4: avoid vaccinating persons unless in recommended risk groups.

### 7. Does the child have cancer, leukemia, AIDS, or any other immune system problem?

Live virus vaccines (e.g., MMR, MMRV, varicella, and the intranasal live, attenuated influenza vaccine [LAIV]) are usually contraindicated in immunocompromised children. However, there are exceptions. For example, MMR is recommended for asymptomatic HIV-infected children who do not have evidence of severe immunosuppression. Likewise, varicella vaccine should be considered for HIV-infected children with age-specific CD4+ T-lymphocyte percentage at 15% or greater and may be considered for children age 8 years and older with CD4+ T-lymphocyte counts of greater than or equal to 200 cells/ $\mu$ L. Immunosuppressed children should not receive LAIV. For details, consult the ACIP recommendations (4, 5, 6).

### 8. Has the child taken cortisone, prednisone, other steroids, or anticancer drugs, or had x-ray treatments in the past 3 months?

Live virus vaccines (e.g., MMR, MMRV, varicella, LAIV) should be postponed until after chemotherapy or long-term high-dose steroid therapy has ended. For details and length of time to postpone, consult the ACIP statement (1). To find specific vaccination schedules for stem cell transplant (bone marrow transplant) patients, see reference 7. LAIV can only be given to healthy non-pregnant individuals age 2–49 years.

### 9. Has the child received a transfusion of blood or blood products, or been given a medicine called immune (gamma) globulin in the past year?

Certain live virus vaccines (e.g., MMR, MMRV, varicella) may need to be deferred, depending on several variables. Consult the most current ACIP recommendations or the current *Red Book* for the most current information on intervals between immune globulin or blood product administration and MMR, MMRV, or varicella vaccination (1, 2).

### 10. Is the child/teen pregnant or is there a chance she could become pregnant during the next month?

Live virus vaccines (e.g., MMR, MMRV, varicella, LAIV) are contraindicated prior to and during pregnancy because of the theoretical risk of virus transmission to the fetus (1, 6). Sexually active young women who receive a live virus vaccine should be instructed to practice careful contraception for one month following receipt of the vaccine (5, 8). On theoretical grounds, inactivated poliovirus vaccine should not be given during pregnancy; however, it may be given if risk of disease is imminent (e.g., travel to endemic areas) and immediate protection is needed. Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester (9).

### 11. Has the child received vaccinations in the past 4 weeks?

If the child was given either live, attenuated influenza vaccine (FluMist®) or an injectable live virus vaccine (e.g., MMR, MMRV, varicella, yellow fever) in the past 4 weeks, they should wait 28 days before receiving another vaccination of this type. Inactivated vaccines may be given at the same time or at any spacing interval.

#### References:

1. CDC. General recommendations on immunization, at [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).
2. AAP. *Red Book: 2006 Report of the Committee on Infectious Diseases*. 27<sup>th</sup> ed. Elk Grove Village, IL: AAP; 2006.
3. Table of Vaccine Components: [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf).
4. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps. *MMWR* 1998; 47 (RR-8).
5. CDC. Prevention of varicella: Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007; 56 (RR-4).
6. CDC. Prevention and Control of Influenza—Recommendations of ACIP at [www.cdc.gov/flu/professionals/vaccination/](http://www.cdc.gov/flu/professionals/vaccination/).
7. CDC. Excerpt from Guidelines for preventing opportunistic infections among hematopoietic stem cell transplant recipients. *MMWR* 2000; 49 (RR-10). [www.cdc.gov/vaccines/pubs/downloads/b\\_hscat-recs.pdf](http://www.cdc.gov/vaccines/pubs/downloads/b_hscat-recs.pdf).
8. CDC. Notice to readers: Revised ACIP recommendation for avoiding pregnancy after receiving a rubella-containing vaccine. *MMWR* 2001; 50 (49).
9. CDC. Prevention of tetanus, diphtheria and pertussis among pregnant women: Provisional ACIP recommendations for use of Tdap vaccine, at [www.cdc.gov/vaccines/recs/provisional/downloads/tdap-preg.pdf](http://www.cdc.gov/vaccines/recs/provisional/downloads/tdap-preg.pdf).

## **FORMS**

**HEALTHCARE FOR THE HOMELESS**  
**Client Intake Form (Pediatric)**

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Sex:  M  F DOB: \_\_\_\_\_

Site: \_\_\_\_\_ Housing Hx: \_\_\_\_\_ Phone: \_\_\_\_\_

Parent Name: \_\_\_\_\_

New to Seattle?  N  Y from: \_\_\_\_\_ Homeless:  < 1 year  1-3 years  >3 years

Benefits:  N  Y \_\_\_\_\_ PCP: \_\_\_\_\_ PCP Phone: \_\_\_\_\_

Other HCH encounters:  N  Y where? \_\_\_\_\_

Primary language:  English  Other: \_\_\_\_\_ Interpreter:  N  Y \_\_\_\_\_

Cultural Practices: \_\_\_\_\_

Child Care/School: \_\_\_\_\_ Grade Level: \_\_\_\_\_

CC: \_\_\_\_\_

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**Basic Needs**

Living Situation: \_\_\_\_\_

Food: \_\_\_\_\_

Transportation: \_\_\_\_\_

Financial Support: \_\_\_\_\_

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**Health Maintenance**

Allergies/Sensitivities: \_\_\_\_\_

Last PE/WCC: \_\_\_\_\_

Last Dental: \_\_\_\_\_

Vision/Hearing Screen: \_\_\_\_\_

Current Medications: \_\_\_\_\_

IMMS UTD  Y  N  UNK

Past Medical Hx:

Asthma: \_\_\_\_\_ Anemia: \_\_\_\_\_ Infections: \_\_\_\_\_ Seizures: \_\_\_\_\_

Other: \_\_\_\_\_

Term / Preterm Complications: \_\_\_\_\_

Hospitalizations: \_\_\_\_\_ Accidents/Injuries: \_\_\_\_\_

TB Exposure: \_\_\_\_\_ Sx: \_\_\_\_\_ Last PPD: \_\_\_\_\_ Follow-up: \_\_\_\_\_

Records Verified:  Y  N

Lead Risk:  Y  N

Family Hx: \_\_\_\_\_

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**Nutrition/Elimination**

Weight Gain/Loss: \_\_\_\_\_

Meal Pattern: \_\_\_\_\_

Bowel/Bladder: \_\_\_\_\_

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**Reproductive Health**

Menarage:  
 Current BCM/Plans:  
 STD's/Genital Herpes:  
 Sexually Active :  Y  N  
 HX Sexual Abuse/Rape:

**Activity/Sleep/Safety**

Exercise:  
 Sleep pattern:  
 Safety:

**Psycho-Social**

**Attachment / Parenting**

Mental Health Hx/Rx:  
 ETOH/Substance Use / Tobacco Use Hx/Rx:  
 Hx Emotional/Physical Abuse:  No  Current  Past  
 Self-Harm:  Current  Past  
 Grief/Loss:  
 Primary Caregiver / Supports  
 Stress/Self Care/Recreation/Friends  
 Development milestones / Speech / Motor / Behavior / Cognitive / Emotional

**O:**  
 WT: \_\_\_\_\_ HT: \_\_\_\_\_ OFC: \_\_\_\_\_ BMI: \_\_\_\_\_ T: \_\_\_\_\_ BP: \_\_\_\_\_ HR: \_\_\_\_\_  
 General:  alert  NAD  Alert, playing, smiling \_\_\_\_\_  
 Eyes:  conj clear  no d/c  \_\_\_\_\_  
 Ears:  TMs nl  \_\_\_\_\_  
 Nose:  nares patent  no d/c \_\_\_\_\_  
 Oropharynx:  no inflamm  nl tonsils/pharynx  PND  dental caries  \_\_\_\_\_  
 Neck:  supple  lymphadenopathy \_\_\_\_\_  
 Chest:  Clear Bilaterally  \_\_\_\_\_ Peak Flows: \_\_\_\_\_  
 Heart:  RRR, nl S1/S2, no MRG  \_\_\_\_\_ GU:  nl  \_\_\_\_\_  
 Abdomen:  soft  non-tender  no HSM  \_\_\_\_\_  
 MSK:  nl gait  \_\_\_\_\_  
 Skin  no rashes  \_\_\_\_\_  
 Psych:  nl affect  \_\_\_\_\_

**A: Homeless Family**

**P:**  Scheduled follow-up with me  Set self-management goals  Referral (see below)

REF/RC/DNRC/LTFU	REF/RC/DNRC/LTFU	REF/RC/DNRC/LTFU
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> HCHN Provider	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Substance Abuse Tx	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Birth to 3/Special Educ.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Primary Care Provider	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mental Health/Counseling	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Job Training /Employmt
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hospital/ER/Urgent Care	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> TB Clinic (Public Health)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Housing
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Specialty Medical Care	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Disability Evaluation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> DSHS
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Vision Services	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Cognitive Skills Evaluation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Social Services
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Dental Services	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Education	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 Provider Print/Sign RN/HCH Date

## HEALTH CARE FOR THE HOMELESS-CENTRAL FAMILY SERVICES TEAM-LICE FORM

Date: \_\_\_\_\_ Name: \_\_\_\_\_ DOB: \_\_\_\_\_

Accompanying Adult \_\_\_\_\_ Shelter: \_\_\_\_\_

- S:**
- Lice Seen
  - Nits Seen
  - Itching
  - Last Treatment if Any? \_\_\_\_\_
  - Any Known Exposure? \_\_\_\_\_

- O:**
- Visible Lice? T: \_\_\_\_\_
  - Visible Nits?
  - Excoriation or Rash? \_\_\_\_\_
  - Purulent Discharge? \_\_\_\_\_

- A:**
- Homeless Family
  - Lice (Pediculosis)
  - Health Maintenance rule out Lice (Pediculosis)

- P:** TEACHING:
- Pesticide application with precise instructions: \_\_\_\_\_
  - Lice Out gel/conditioner for nit removal
  - Rx dispensed? \_\_\_\_\_
  - Comb/pick x 21 days
  - Wash clothing, bedding, linen
  - Vacuum including car seat/stroller
  - Bag items x 1 month

- DISCUSS:
- Prevention
  - Reinfestation
  - Transmission

- Observe for skin infection.
- Observe for new lice/nits.
- Follow up 1 week, or sooner PRN.
  - To clinic if  $\uparrow$  101.5 or \_\_\_\_\_, or if signs/symptoms of infection