

UTAH PREVENTIVE CARE RECOMMENDATIONS

ADOLESCENT AGES 11-18

Contents

- General Instructions
- Family History
- Body Measurement
- Eating Disorders
- Lifestyle
- Blood Pressure
- Cholesterol
- HCT/Hb
- Dental
- Development/Behavior
- Depression/Suicide
- Substance Use
- Spine
- Sexual Development
- Tuberculosis
- HIV
- Abuse
- Hearing
- Vision
- Urinalysis

GENERAL INSTRUCTIONS

Refer to AAP [2014 Recommendations for Preventive Pediatric Health Care](#). The periodicity schedule is on page 2 of the document.

FAMILY HISTORY

Take a careful family history for cardiovascular risk factors such as hypertension, hypercholesterolemia, heart disease, diabetes, obesity, or exposure to second hand smoke.

Other areas of family history which may be helpful include cancer, asthma, osteoporosis, mental illness, hearing loss, etc.

BODY MEASUREMENT

Measure height, weight and Body Mass Index (BMI) kg/m^2 with each well adolescent visit. Plot to BMI percentile growth charts for [males](#) and for [females](#).

BMI-for-Age from the $\geq 85^{\text{th}}$ to $< 95^{\text{th}}$ percentiles is classified as overweight.

BMI-for-Age of $\geq 95^{\text{th}}$ percentile is classified as obese.

Use Intermountain Healthcare's [Lifestyle and Weight Management for Children and Adolescents Care Process Model](#) (CPM) as a guide for the evaluation and treatment of patients with a $\geq 85^{\text{th}}$ BMI-for-Age percentile

Key areas of evaluation include activity level, sedentary behavior, nutrition, sleep, social support, family style, and environmental stress.

The CPM contains various tools to assist in the evaluation and treatment of overweight and obesity:

- A [Lifestyle and Health Risk Questionnaire](#)
- The [Rx to LiVe Well](#) prescription sheet provides recommendations centered around 8 evidence-based behaviors as well as provides areas for goals, referrals and follow-up dates
- Intermountain's Behavior Change Framework was used to create the questions in the [Making a Change Worksheet](#) that can help a patient plan simple steps toward their goals
- Tracking and reporting progress are important steps in making a change. Give patients an [8 to LiVe By Track It! Tracker](#).
- Patient education tools include the Intermountain Healthcare [LiVe website](#), the [8 to LiVe by Habit Builder](#), and the [8 to LiVe by Booklet](#).
- Order Intermountain Healthcare educational materials through iPrint Store, or contact Clinical Education Services at (801) 442-3300

Refer patients to a dietitian at an Intermountain Healthcare facility for medical nutrition therapy (either one-on-one counseling or group class is advised), and to behavioral health specialists as needed.

EATING DISORDERS

Questions about eating patterns and satisfaction with body appearance should be asked of all preteens and adolescents as part of routine pediatric health care.

Possible signs of an eating disorder include:

- positive response to question about eating in secret in the [Lifestyle and Health Risk Questionnaire](#)
- physical signs such as significant weight loss or gain, brittle hair or nails, tooth or gum problems, irregular or absent menstrual periods, heartburn, constipation diarrhea, or stress fractures
- failure to achieve appropriate increases in weight or height in growing children
- excessive concern with weight or inappropriate dieting
- admitted use of diet pills, laxatives or diuretics

The Modified ESP (Eating Disorders Screen in Primary Care) is effective in identifying patients who require further evaluation for eating disorders.

Modified ESP questions:

1. Are you concerned with your eating patterns?
2. Do you ever eat in secret?
3. Does your weight affect the way you feel about yourself?
4. Have any members of your family suffered from an eating disorder?

Scoring:

- 0-1 "Yes" responses: Eating disorder ruled out
- ≥ 2 "Yes" responses: Eating disorder suspected, evaluate further

When an eating disorder is suspected, follow the recommendations on assessment, evaluation of severity, and treatment found in the Intermountain Healthcare [Eating Disorders Care Process Model](#)

(CPM)

LIFESTYLE

Assess lifestyle behaviors such as physical activity, nutrition, sleep, and social support which put patients at higher risk for disease using [Intermountain's Lifestyle and Health Risk Questionnaire](#).

Assess adolescent physical activity using the pediatric physical activity vital sign (PPAVS – days per week of at least 60 minutes of moderate to vigorous physical activity or play) at each visit.

Refer to Intermountain Healthcare's [Lifestyle and Weight Management for Children and Adolescents Care Process Model](#) (CPM) for additional information on a team based approach and resources for evaluating and counseling adolescents regarding lifestyle behaviors.

SLEEP

Assess hours of daily sleep.

Screen adolescent for snoring as an indicator for obstructive sleep apnea syndrome (OSAS). Other findings associated with OSAS include habitual snoring with labored breathing, observed apnea, restless sleep, enuresis, and daytime neurobehavioral abnormalities or sleepiness. When OSAS is suspected, refer to a sleep specialist for further testing.

BLOOD PRESSURE

Measure blood pressure by auscultation at each visit, using an appropriate cuff size for the patient's upper arm.

Chart to percentile tables for [girls](#) and [boys](#) according to age, and height. A measurement that exceeds the 90th percentile should be repeated.

Prehypertension is defined as average systolic blood pressure or diastolic blood pressure greater than or equal to the 90th percentile and less than the 95th percentile.

Hypertension is defined as average systolic blood pressure and/or diastolic blood pressure that is \geq 95th percentile for gender, age and height on 3 or more occasions.

Treat prehypertensive and hypertensive adolescents according to [NHLBI Fourth Report on the Diagnosis, Evaluation and Treatment of High Blood Pressure in Children and Adolescents, May 2005](#)

CHOLESTEROL

Assess risk of hyperlipidemia. Screen adolescents determined to be at High risk with a fasting lipid profile. Universal lipid screening adolescents is not recommended. See the [Assessment and Follow-up of Lipoprotein Analysis](#) chart for further classification, treatment and testing.

High risk:

- Adolescents who have a parent with a total cholesterol level of 240 mg/dl or greater

- Adolescents with a family history of premature cardiovascular disease (i.e. a parent or grandparent with documented cardiac or vascular disease at age 55 years or younger)
- Adolescents with risk factors for coronary disease (i.e. high blood pressure, smoking, diabetes, overweight – BMI \geq 85th percentile)
- Adolescents whose family history is not obtainable

Treat adolescents with a diagnosis of familial hyperlipidemia, or refer them to regional specialists. Consider genetic tracking. [Clinical criteria for diagnosing familial hyperlipidemia](#) are included.

HCT/HB

Screen all non-pregnant girls for anemia every 5 to 10 years. Annually screen girls with history of iron deficiency anemia or risk factors such as menorrhagia or diets low in iron.

Refer to tables listing [anemia cut points](#), [altitude correction factors](#), and examples of [local altitudes](#).

DENTAL

Advise visit to dentist on a regular basis

Encourage regular brushing and flossing

Treat with Fluoride supplementation as listed below

	Concentration of Fluoride in Local Water Supply (ppm)		
	<0.3	0.3-0.6	>0.6
Daily dose of Fluoride for ages 11-16 years old	1.00 mg	0.5 mg	0 mg

Assume that your community has <0.3 PPM in its water supply unless noted as having a higher concentration by the Utah Department of Health Dental Health Program listing of [Fluoride concentrations in local water supplies](#).

A 2.2 mg sodium fluoride (NaFl) tablet contains one mg Fluoride.

If more detailed information is needed about your location contact the [Oral Health Program, Utah Department of Health](#), (801) 538-9177.

DEVELOPMENT/BEHAVIOR

Assess adolescent in the area of Cognitive Development, Social-Emotional Development, School-Vocation, and Family. See chart "[Adolescent Psychosocial Development](#)"

Evaluate adolescent for high-risk behaviors (i.e. substance use/abuse, eating disorders, violence, sexual activity, and anti-social behavior)

DEPRESSION/SUICIDE

Clinicians should be alert to signs of depression or suicide risk during each visit – Refer to [Symptoms of Major Depression](#) for more information.

Intermountain Healthcare has put together a [Mental Health Integration Child/Adolescent Packet](#) that includes useful tools for evaluating children, adolescents and their families for mental health concerns. The packet includes rating scales to evaluate anxiety and stress, developmental problems and mood problems, attention deficit and hyperactivity disorder, and home impairment.

Screen for depression using the PHQ-2 questions, and if positive, complete the [Patient Health Questionnaire for adolescents](#) (PHQ-A)

When the adolescent screens positive for suicide on the PHQ-A (1-3 to question #9) or when there is a clinical suspicion of suicidal ideation or behaviors present, screen for suicide risk using the [Columbia Suicide Severity Rating Scale \(C-SSRS\) Adult/Adolescent Quick Screen](#). Intermountain Healthcare's [Suicide Prevention Care Process Model \(CPM\)](#) provides guidance on the evaluation and treatment of suicide risk based on the results of the C-SSRS Quick Screen.

SUBSTANCE USE

Obtain a history of use of tobacco, alcohol, drugs, prescription drugs, performance-enhancing substances, or other substances of abuse at each visit. For adolescents ages ≥ 12 years, use the Intermountain modified NIDA Quick Screen questions contained in the [Substance Use Flash Card](#). For those with any positive response on the modified NIDA Quick Screen, administer the [ASSIST-based Assessment](#)

Refer to the Intermountain Healthcare [Substance Use Disorder CPM](#)

SPINE

Evaluate females twice for scoliosis by visual exam ages 10 and 12 years.

Evaluate males once at age 13 or 14 years.

SEXUAL DEVELOPMENT

Evaluate Tanner Stage each well visit. See [Tanner Stage diagrams](#)

TUBERCULOSIS

Test adolescents at **HIGH RISK** with Tuberculin Skin Test (TST) using the Mantoux Technique or with an Interferon Gamma Release Assay (IGR) tuberculosis blood test.

HIGH RISK includes adolescents:

- Born in Africa, Asia, Latin America or Eastern Europe
- Who have traveled to and stayed with friends or family members in Africa, Asia, Latin America or Eastern Europe for ≥ 1 week consecutively
- Exposed to someone with suspected or known TB disease (also report to health department)
- With close contact with a person who has a positive TB skin test
- Who spend time with persons who have been incarcerated, homeless, use illicit drugs or has

HIV

TST should be read 48 to 72 hours after placement by a trained health care provider. Results should be recorded as millimeters of induration.

Definition of Positive Tuberculin Skin Test (Mantoux technique)

Induration \geq 5 mm

- Child or adolescent in close contact with a known or suspected infectious case of TB
- Child or adolescent with suspected TB disease:
 - Finding on chest radiograph consistent with active or previously active TB
 - Clinical evidence of TB disease
- Child or adolescent who is immunosuppressed (eg, receiving immunosuppressive therapy or with immunosuppressive condition [eg, HIV infection])

Induration \geq 10 mm

- Child or adolescent at increased risk of disseminated disease:
 - Those < 4 years old
 - Those with concomitant medical conditions (eg, Hodgkin's disease, lymphoma, diabetes mellitus, chronic renal failure, or malnutrition)
- Child or adolescent with increased risk of exposure to cases of TB disease:
 - Those who were born in, who travel to, or whose parents were born in a country with a high prevalence of TB cases
 - Those frequently exposed to adults with risk factors for TB disease (eg, adults who are HIV-infected or homeless, users of illicit drugs, those who are incarcerated, or migrant farm workers)

Induration \geq 15 mm

- Children \geq 4 years old with no known risk factors

(Modified from AAP. *Red Book: 2003 Report of the Committee on Infectious Diseases*. 25th ed. Elk Grove Village, IL: AAP; 2003:642-660)

For evaluation and treatment of positive TB test, refer to Recommendations of Pediatric Tuberculosis Collaborative Group (*Pediatrics* 2004;114;1175-1201)

http://pediatrics.aappublications.org/content/114/Supplement_4/1175.full

HIV

The CDC recommends that all persons ages 13-64 years receive universal screening for HIV. It also states "Health-care providers should initiate screening unless prevalence of undiagnosed HIV infection in their patients has been documented to be <0.1%". In Utah (2013), the prevalence of HIV was estimated to be 0.099%. CDC estimates that 1 in 4 cases of HIV remains undiagnosed, which would put our undiagnosed prevalence 0.033% (below the level which would warrant universal screening).

Therefore, Intermountain Healthcare, in consultation with the Utah Department of Health **does not** recommend universal HIV screening in this population

Individuals at high risk for HIV should be screened annually, including:

- Patients initiating treatment for TB
- Patients seeking treatment for STDs
- Injection-drug users and their sex partners
- Men having Sex with Men (MSM)
- Patients with multiple sex partners
- Patients who are foreign born

Note: The USPSTF recommends routine screening for HIV in individuals ages 15-65, and also allows for communities with low prevalence of undiagnosed HIV to forgo routine HIV screening and perform screening based on risk.

ABUSE

Adolescents should be asked about any history of intimidation, or history of emotional, physical or sexual abuse. Questions about abuse should be addressed with adolescent when potential adult abuser (including parent) is not present

If family violence or child abuse is suspected:

- For a list of state requirements refer to the [State of Utah Child Abuse Reporting Requirements](#).
- For referral, contact Primary Children's Hospital Safe and Healthy Families (801) 662-3600.

For more information, refer to the document, "[Evaluation of Suspected Child Physical Abuse](#)" June 2007, American Academy of Pediatrics.

HEARING

At well-adolescent visits, ask subjective questions about hearing status.

VISION

Objective acuity testing at ages 12, 15 and 18. Subjective by history at other well-adolescent visits

URINALYSIS

- Universal screening of adolescents by urinalysis is not recommended
- Patients covered by Medicaid should be tested once during adolescence with a dipstick leukocyte esterase to screen for bacteria
- Sexually active male adolescents should be tested annually with a dipstick leukocyte esterase to screen for sexually transmitted diseases.
- See information about [DIPSTICK LEUKOCYTE ESTERASE TEST](#)