ANTICIPATORY GUIDANCE

The anticipatory guidance component of every Bright Futures visit gives the health care professional, parents, and the child or adolescent a chance to ask questions and discuss issues of concern. This guidance is organized around 5 priority areas, and specific questions and discussion points are provided for the health care professional. Health care professionals are encouraged to adapt and enhance these questions and discussion points to meet the specific needs of their families and communities.

The chapters in this section of the book focus on topics of public health importance, in which active discussion and guidance can make a positive impact in the lives of families. For example, the Motivational Interviewing chapter provides a framework to help health care professionals talk to patients and families about behavior change, a subject that is central to all the topics in this section of the book.

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Why Is It Important to Include Bicycle Helmets in Anticipatory Guidance?

Many children and youth love to bicycle but they don’t always wear a helmet. Bicycling is a popular recreational activity in the United States, particularly among children. It is estimated that 33 million children ride bicycles for nearly 10 billion hours each year. Unfortunately, only 25% of children use helmets all or most of the time while cycling.¹

Bicycle-related injuries are common. Every year, about 450,000 children are treated in emergency departments for bicycle-related injuries. Of the injuries, 153,000 are for head injuries. These head injuries are often very serious and account for most bicycle-related deaths.² Many of the nonfatal injuries also are of great consequence, often producing lifelong disability associated with brain damage.²

Bicycle helmets protect children. It is well established that bicycle helmets are effective in preventing head injuries associated with bicycling. Overall, helmets decrease the risk of head and brain injury by about 80%.³ The risk of facial injuries to the upper and mid face is reduced by 65%.³

Counseling and safety programs can increase helmet use. Although not specific to bicycle helmet counseling, injury prevention counseling of parents of young children in the primary care setting has been shown to result in enhanced educational and behavioral outcomes. In some cases, it has resulted in decreased injuries.⁴ Effective programs directed specifically at increasing the use of bicycle helmets in children have leveraged the synergy of legislation, community-based initiatives, and economic incentives.¹ One report, which also included reinforcing community initiatives with advice from pediatric practices, resulted in a significant increase in helmet use.⁵

How Should You Provide Anticipatory Guidance About Bicycle Helmets?

Urge parents to

- Check that the helmet meets the bicycle safety standards of the Consumer Product Safety Commission.
- Fit the helmet squarely on top of the child’s head, covering the forehead. Be certain that it does not move around on the head or slide down. Adjust the chin strap to a snug fit.
- Be certain that the child wears the helmet every time he or she rides the bike.
- Serve as a model for the child. Parents also should always wear a helmet when bicycle riding.

Use materials from the American Academy of Pediatrics (AAP) Injury Prevention Program (TIPP) to enhance your counseling. The TIPP sheets “About Bicycle Helmets” and “Tips for Getting Your Children to Wear Bicycle Helmets” have additional educational points.

Consider performing an actual assessment of the helmet in your office. It can provide further reinforcement and education about bicycle helmets.⁶
What Anticipatory Guidance Should You Provide if You Encounter Resistance to Helmet Use?

Give parents who do not require their children to use a helmet extensive information about the risks of bicycle-related head injuries, including the TIPP sheets and details of state or local legislation or regulations.

Whenever available, provide discount coupons for approved helmets. If your community has an active helmet program, they may provide access to free helmets under certain circumstances.

Children who answer that they do not use a bicycle helmet should be given information appropriate to their age and cognitive level on the need for helmets. Materials for children from ongoing state or local community programs also may be available.

What Results Should You Document?

Documentation of counseling efforts is always recommended. The physician copies of the Framingham Safety Surveys also are useful for documentation and to identify patients who would benefit from reviewing the issue of helmet use at subsequent visits.

CPT and ICD-9-CM Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99401</td>
<td>Preventive medicine counseling or risk factor reduction intervention(s) provided to an individual; approximately 15 minutes.</td>
</tr>
</tbody>
</table>

Web Sites

- Bicycle Helmet Safety Institute: http://www.bhsi.org/
- Centers for Disease Control and Prevention: http://www.cdc.gov/
- Harborview Injury Prevention and Research Center: http://depts.washington.edu/hiprc/

References


Resources

Tools

The AAP TIPP Program has injury prevention counseling questionnaires, including the Framingham Safety Survey: From 5 to 9 Years and from 10 to 12 Years. This survey covers the issue of bicycle helmet use. The 5 to 9 Years survey is completed by the parent and the 10 to 12 Years survey is completed by the child. Each survey includes a physician copy in which at-risk responses are easily identified. This provides a useful, interactive method to counsel parents and children and also provides documentation of the counseling process.
Why Is It Important to Include Media Usage in Anticipatory Guidance?

Children and teenagers spend more than 7 hours a day with a variety of different media. Television predominates, with more than 4 hours a day of screen time, although viewing may now be via a computer or a cell phone screen instead of a TV set. Media use represents the leading leisure time activity for young people—they spend more time with media than they do in any other activity except sleeping. Increasingly, preteens and teens are using new technologies (social networking sites, cell phones) to communicate with each other; but there are documented risks to this as well, including bullying and displays of risky behaviors online and in text messages.

Thousands of studies now attest to the power of the media to influence virtually every concern that pediatricians and parents have about the health and development of children and adolescents—sex, drugs, obesity, school achievement, bullying, eating disorders, and even attention-deficit disorder (ADD) and attention-deficit/hyperactivity disorder (ADHD). The research has been well documented and summarized in a number of American Academy of Pediatrics (AAP) policy statements and in recent books.

Media violence. The impact of television in particular on aggressive behavior in young people has been documented since the early 1950s in more than 2,000 published studies. While media violence is not the leading cause of violence in society, it can be a significant factor. In addition, virtually everyone is desensitized by the violence they see on TV, movie, and video screens. American media specialize in portraying the notion of justifiable violence (eg, “good” guys versus “bad” guys). In the research literature, this is the single most powerful positive reinforcer for producing aggression. Bullying online and via text messaging is also an increasing concern.

Sex. Television shows for teenagers actually contain more sexual content than adults’ shows, yet less than 10% of that content involves the discussion of risks or responsibilities involved in sexual relationships. In the absence of effective sex education at home or in schools, the media have arguably become the leading sex educator in the United States. Several longitudinal studies now link exposure to sexual content at a young age to earlier onset of sexual intercourse. In addition, up to 20% of teens have engaged in “sexting.”

Drugs. More than $20 billion a year is spent advertising legal drugs in the United States—$13 billion on cigarettes, $5 billion on alcohol, and $4 billion on prescription drugs. Numerous studies have found that advertising can be a potent influence on whether teenagers will start using cigarettes or alcohol. New research has found that witnessing smoking or drinking alcohol in movies may be the leading factor associated with adolescent onset of substance use.

Obesity. Dozens of studies have implicated media in the current worldwide epidemic of obesity; however, the mechanism is unclear. Young people see an estimated 10,000 food ads per year on TV, most of them for junk food or fast food. Screen time increases unhealthy snacking, may displace more active pursuits, and may interfere with healthy sleep habits.

Eating disorders. The impact of media on unhealthy body self-image, especially in young girls, has been well documented, especially in advertising and mainstream media. Two studies have linked media use with eating disorders.
Other health concerns. Several studies have linked media use with ADD, ADHD, and poorer school performance. In addition, half a dozen studies have found potential language delays in infants younger than 2 years exposed to TV or videos.

Prosocial media. While all of these potential health problems exist, clinicians also need to recognize the extraordinary power of the media to teach prosocial attitudes and behaviors like empathy, cooperation, tolerance, and even school readiness skills. Media have an amazing ability to teach—the only question is, what are children and teenagers learning from them?

Should You Screen for Media Usage?

Since they potentially influence numerous aspects of child and adolescent health, the media may represent the most important area of anticipatory guidance in well-child visits. One study has shown that a minute or two of office counseling about media violence and guns could reduce violence exposure for nearly 1 million children per year. Given the sheer number of hours that children and teens spend with media, as well as the convincing research on health effects of the media, counseling is imperative. Parents are also looking for help, especially understanding and supervising computer use and social networking sites.

How Should You Screen for Media Usage?

To screen for media usage, clinicians should ask 2 questions about media use at health supervision visits:

1. How much screen time per day does the child spend? and
2. Is there a TV set or Internet connection in the child’s bedroom?

The AAP Media Matters campaign developed a media history form for parents that can be filled out while waiting to see a clinician.

Because of the research findings, children or teens who are overweight or obese, have school problems, exhibit aggressive behavior, display sexual precociousness, or are depressed or suicidal should be asked specifically about how much screen time they spend and what programs, specifically, they are watching.

What Anticipatory Guidance Should You Provide Regarding Media Usage?

The AAP makes the following recommendations for advising parents:

• Limit total entertainment screen time to fewer than 2 hours per day.
• Avoid screen time for babies younger than 2 years.
• Encourage a careful selection of programs to view.
• Coview and discuss content with children and adolescents.
• Teach critical viewing skills.
• Limit and focus time spent with media. In particular, parents of young children and preteens should avoid exposing them to PG-13 and R-rated movies.
• Be good media role models—children often develop their media habits based on their parents’ media behavior.
• Emphasize alternative activities.
• Create an “electronic media–free” environment in children’s rooms.
• Avoid use of media as an electronic babysitter.
• Avoid watching TV during family meals.

What Results Should You Document?

Total amount of screen time per day and presence of a TV set or an Internet connection in the bedroom should be documented.
Resources

AAP Policy Statements


Books


Web Sites

American Academy of Pediatrics: www.aap.org

Center on Media and Child Health: http://www.cmch.tv/ Online library of research articles.

Children’s Health Topics: Internet & Media Use: http://www.aap.org/healthtopics/mediause.cfm

Common Sense Media: http://www.commonsensemedia.org/
Ratings and advice for parents on a variety of different media.

Council on Communications and Media blog: http://cocm.blogspot.com/

Kaiser Family Foundation: http://www.kff.org
Many content analyses and review articles on children and media.

Media history form: http://www.aap.org/advocacy/Media%20History%20Form.pdf

Advice for Parents

AAP: SafetyNet: Keep Your Children Safe Online: http://safetynet.aap.org/

References


2. Moreno M. Update on social networking sites. *Pediart Ann.* In press


What Is Metabolic Syndrome?

An individual is said to have metabolic syndrome if he or she meets 3 or more of the following 5 criteria:

- Age- and gender-specific elevated blood pressure (systolic blood pressure and/or diastolic blood pressure ≥90th percentile)
- Elevated waist circumference
- Elevated triglycerides
- Low high-density lipoprotein (HDL) cholesterol
- Elevated fasting glucose (≥100 mg/dL)

Although a recent paper from the American Heart Association suggested that using a specific definition or diagnostic criteria for children or adolescents is premature at this time.1 The focus should be on excess adiposity or obesity; the cardiometabolic complications with excess weight; and the lifestyle factors of nutrition, physical activity, or tobacco use that elevate the risk for premature heart disease.

Why Is It Important to Include Metabolic Syndrome in Anticipatory Guidance?

The components of metabolic syndrome increase the risk of type 2 diabetes and premature cardiovascular disease among obese children.2 The syndrome itself should not be a focus on diagnosis or treatment, but rather serve as a reminder to consider screening for these components as well as other metabolic abnormalities among obese youth.1

Overweight and obesity lead to the development of cardiometabolic abnormalities, like those described by the metabolic syndrome, as well as polycystic ovary syndrome (PCOS), sleep apnea, and nonalcoholic fatty liver disease (NAFLD). Obese children and adolescents are at increased risk for type 2 diabetes mellitus and premature cardiovascular disease in early adulthood.3,4 A 3-year follow-up of 33 children with abnormal oral glucose tolerance test (OGTT) found 24% developed type 2 diabetes mellitus. Those who developed type 2 diabetes had persistent weight gain, were more overweight, and were African American.5 Obese children with NAFLD, compared to matched obese youth without NAFLD, had 3 times the risk of having a metabolic syndrome clustering of risk factors.6 Thus when clinicians detect features of the metabolic syndrome in obese youth, we must be aware of the risk of NAFLD.
Autopsy studies show that raised atheromatous plaques were present as early as 8 years of age. Further, overweight teens and young adults had more fatty streaks and larger cholesterol plaques than their normal-weight peers, and the severity of these lesions increased with each additional cardiometabolic abnormality.\textsuperscript{7–9}

The US Preventive Services Task Force (USPSTF) found good evidence that overweight youth ages 8 years and older are at elevated risk for medical complications of their weight and at greatly elevated risk of becoming obese adults.\textsuperscript{10} In early 2010, the USPSTF recommended that clinicians screen children 6 years of age and older for obesity and offer them or refer them to intensive counseling and behavioral interventions to promote improvements in weight status. (Grade B recommendation). These programs were described as comprehensive moderate- to high-intensity programs that include dietary, physical activity, and behavioral counseling components. These typically involved at least 25 hours of contact with the child and/or the family over a 6-month period.\textsuperscript{11}

Cardiometabolic derangements among obese subjects is related to lifestyle behaviors, including diet and physical activity. Longitudinal studies show that these factors cluster together over time, especially among teens who demonstrate poor lifestyle behaviors. The Young Finns study showed a cluster of similar cardiovascular risk factors either remained abnormal or got worse over time if teens consumed excess calories, fat, and saturated fat; started or continued to smoke; or decreased their level of exercise.\textsuperscript{12–14}

How Should You Determine Whether a Child Is at Risk for Cardiometabolic Abnormalities of Excess Weight?

Measure Body Mass Index (BMI)

Measure weight and height beginning at age 2 and calculate and plot BMI for age and gender at all health supervision visits. Details on measurement may be found in the “Assessing Growth and Nutrition” chapter.

Measure Blood Pressure

Measure blood pressure at all health supervision visits beginning with the 3-year visit. Confirm all blood pressure readings against updated blood pressure guidelines for children, and repeat abnormal measurements manually with an appropriate-sized cuff. Details on measurement may be found in the “Blood Pressure” chapter.

Screen for Dyslipidemias

The AAP policy statement, “Lipid Screening and Cardiovascular Health in Children,”\textsuperscript{15} suggests that targeted screening for cholesterol, low-density lipoprotein (LDL) cholesterol, HDL cholesterol, and triglycerides with a fasting lipid panel now be considered for children with

- A positive family history of premature cardiovascular disease (myocardial infarct or stroke in men younger than 55 or women younger than 60, or with dyslipidemia)
- Family history of premature cardiovascular disease or dyslipidemia unknown
- Obesity, hypertension, or diabetes

An alternative to using single generic cut points to identify abnormalities in cholesterol, LDL cholesterol, HDL cholesterol, and triglycerides for boys and girls, now age- and gender-specific cut points for each of these have been developed.\textsuperscript{16} (See Table 1.)

Although no management guidelines exist for metabolic syndrome specifically, any of these cardiometabolic complications of obesity should first be addressed with lifestyle changes. Weight loss goal recommendations and lifestyle changes rely on modification of diet and activity. Although difficult to make changes without ongoing reinforcement, counseling or referral to experienced weight loss providers should occur, and the pediatrician should be aware of youth activity programs in the area. Also, consider repeating blood tests in 3 to 6 months to confirm any abnormal results and consider additional screening if warranted by history or physical examination. Repeat blood tests every 6 to 12 months if weight maintenance or loss is not occurring.

Screen for Insulin Resistance and Type 2 Diabetes

Because insulin resistant is a key factor in this syndrome; overweight patients may need to be screened for type 2 diabetes. Screening may occur with a fasting glucose. If fasting blood glucose is greater than 100, an OGGT should be performed or the fasting glucose should be repeated in 3 months. Metabolic syndrome has been shown to
progress to type 2 diabetes in very obese adolescents, and obese youth with impaired glucose tolerance are more likely to go on to develop type 2 diabetes sooner than are obese teens with the syndrome without impaired glucose tolerance.17

Acanthosis nigricans (Figure 1) with skin tags are a sign of insulin resistance. The presence of acanthosis nigricans actually correlates more closely with level of obesity and is therefore very common among obese adolescents with or without insulin resistance.

Acanthosis nigricans is considered a risk factor for screening for type 2 diabetes as part of the recommendations of the American Diabetes Association and the AAP.
Measure Waist Circumference

Visceral adipose tissue (Figure 2) is fat tissue found in the intra-abdominal cavity and is an important component of excess central fat tissue because it has been shown to have different metabolic properties than subcutaneous fat. Excess visceral fat is associated with increased insulin resistance and dyslipidemia related to free fatty acid turnover.

Consider measuring waist circumference in children and adolescents who are overweight but not obese (BMI below the 95th percentile) but whom you think may have excess central fat. 10,18,19 To measure waist circumference (Figure 3)

- Locate the upper hip bone and the iliac crest.
- Place a measuring tape in the horizontal plane around the abdomen at the level of the iliac crest. Ensure that the tape is snug but does not compress the skin and is parallel to the floor.
- Take the measurement at the end of a normal expiration.

Figure 2. Visceral and subcutaneous fat on cross-section

Figure 3. Measuring waist circumference.

For children younger than 18, values above the 90th percentile reflect an excess of central adipose tissue for age and sex (Table 2).

For adolescents older than 18, males with waist circumference greater than 40 inches (>102 cm) or females with waist circumferences greater than 35 inches (>88 cm) exceed the criteria for the adult definition of metabolic syndrome (Table 2). The high normal values from smoothed growth curves are meant to transition measures of excess abdominal fat during adolescence to abdominal obesity in adulthood at age 18.16

### Table 2. Waist Circumference (cm) Cutoffs for Males and Females for > 50th and > 90th and for Age/Gender Specific High-Normal Values That Correlate to Adult Cut Offs

<table>
<thead>
<tr>
<th>Age</th>
<th>Males 50th</th>
<th>Males 90th</th>
<th>Males 91st</th>
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<td>Adult</td>
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<td>102 cm</td>
<td>88 cm</td>
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</table>

The cut-off for abdominal obesity for men is 102 cm and for women it is 88 cm according to the NCEP guidelines. The 91st percentile curve for boys and the 75th percentile curves line for girls represent a smooth growth curve line that transitions into the respective adult cut-off values for abdominal obesity.

Source: Adapted from Table IB from Cook et al.16

What Should You Do With an Abnormal Result?

### Follow Up

Abnormal laboratory values from a single point are not diagnostic for any obesity comorbidity like hypertension or hypercholesterolemia. Follow up with the patient and family relatively soon after these results come in.

Inform the patient and family of the abnormal results.

- Assess and assist patients with weight maintenance or weight loss efforts.
- Guide further or additional screening for cardiometabolic complications of obesity such as NAFLD or PLOS.

### Provide Treatment and Counseling

**Overweight and Obesity**

Weight loss is the primary target for treating cardiometabolic abnormalities of obesity. Include family members when behavioral change for weight loss is the goal.4,18 This is especially true for this cardiometabolic clustering for 2 reasons.

- The clustering of abnormalities in metabolic syndrome occurs in adults and their offspring. Parents with the syndrome are very likely to have children with the syndrome.20,21 If one or both parents are overweight, they will benefit from behavior changes that lead to weight loss in the child.
- Parent behavior change and weight loss are some of the strongest predictors of child weight loss.22

A general low-calorie diet with reduced total fat, as recommended by National Institutes of Health guidelines and the American Heart Association, will benefit the whole family.4,23 The child and parents should partner with behavior changes around food and avoid so-called fad diets.

Regular daily exercise, preferably 60 minutes of moderate to vigorous physical activity, is recommended. To help the family achieve their weight loss and physical activity goals, counsel the family to also decrease sedentary behavior, such as television viewing and other forms of screen time, to less than 2 hours per day.4
The “Weight Maintenance and Weight Loss” chapter provides further details on overweight and obesity assessment and anticipatory guidance.

**Cardiovascular Risk Factors**

The AAP policy statement, “Lipid Screening and Cardiovascular Health in Children,” suggests the use of statins as a first-line treatment for children as young as 8 years with dyslipidemia, defined as abnormalities in total cholesterol, LDL, HDL, and triglycerides, as described previously.

**Type 2 Diabetes**

Counsel patients and families on signs and symptoms of diabetes, especially in severely obese youth with a family history of type 2 diabetes.

Although your comfort level and regional practice patterns should dictate care, for those children and youth with impaired fasting glucose or abnormal glucose tolerance tests, consider referral to an endocrinologist (pediatric or adult) or to a specialist comfortable in the management of type 2 diabetes in youth. If the child cannot be seen by the specialist for a considerable time, strongly consider instructing the family about in-home glucose monitoring and starting an insulin-sensitizing agent such as metformin.

**Sleep Abnormalities**

This syndrome is associated with obstructive sleep apnea syndrome (OSAS). Obese subjects with snoring should be referred for diagnostic testing (polysomnography) to quantify the degree of OSAS as well as guide options for therapy.

**Liver Problems**

Metabolic syndrome and insulin resistance are associated with nonalcoholic fatty liver disease, which can progress to nonalcoholic steatohepatitis (NASH), also called fatty liver. Liver enzyme testing is warranted to test for this condition.

Weight loss with diet and exercise is recommended as the first-line therapy for NASH, but clinical trials are ongoing examining the benefit of antioxidant supplements to improve the inflammatory process in the liver.

**Menstrual Irregularities**

Females with metabolic syndrome and irregular periods may have PCOS. Consider testing for elevated insulin and testosterone (free or total) levels if a female patient with metabolic syndrome continues to have irregular menstrual cycles. Consider a referral to an endocrinologist (pediatric or adult) or an obstetrician/gynecologist comfortable in the management of PCOS.

**What Results Should We Document?**

Document weight at all visits. Height measurements can be limited to every 6 months for BMI calculation.

Measure and record blood pressure at all visits beginning with the 3-year visit. Measure blood pressure of obese adolescents with an appropriate-sized cuff and technique.

At all visits, track and record weight change, blood pressure change, and goals for both weight and blood pressure.

**Resources**


Obesity in Adolescence: Part 1

Obesity in Adolescence, Part 2: Cardiometabolic Risks
### ICD-9-CM Codes

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>277.7</td>
<td>Syndrome X; dysmetabolic syndrome</td>
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<tr>
<td></td>
<td>This code can only be used if ICD-9-CM codes for overweight, obesity, or morbid obesity are used first.</td>
</tr>
<tr>
<td>278.00</td>
<td>Overweight/obesity</td>
</tr>
<tr>
<td>278.01</td>
<td>Morbid obesity</td>
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</table>

Consider including related diagnostic codes for individual components of the syndrome (elevated blood pressure without hypertension, impaired fasting glucose, hyperinsulinemia, dyslipidemia, impaired glucose tolerance). This approach is strongly advised if the patient only has one or two components of the syndrome and thus does not qualify for third-party payer coverage for metabolic syndrome.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>251.1</td>
<td>Hyperinsulinism (ectopic, functional, organic; excludes hypoglycemia)</td>
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<tr>
<td>272.4</td>
<td>Dyslipidemia</td>
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<tr>
<td>401.9</td>
<td>Hypertension (unspecified)</td>
</tr>
<tr>
<td>701.2</td>
<td>Acanthosis nigricans</td>
</tr>
<tr>
<td>790.21</td>
<td>Impaired fasting glucose</td>
</tr>
<tr>
<td>790.22</td>
<td>Impaired glucose tolerance</td>
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</tbody>
</table>

Additionally, the use of the CPT code set 99401–99404—preventive medicine counseling/risk-factor reduction—may also be relevant when providing guidance and counseling on risk-factor reduction.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>99401</td>
<td>Preventive medicine counseling and/or risk-factor reduction intervention(s) provided to an individual (separate procedure); approximately 15 minutes</td>
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<tr>
<td>99402</td>
<td>approximately 30 minutes</td>
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<td>approximately 45 minutes</td>
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<td>approximately 60 minutes</td>
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For more information on reporting these codes, see AAP Coding for Pediatrics 2010 (pages 62–63).

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### References


What Is Motivational Interviewing?

Motivational interviewing is a patient-centered guiding method for enhancing motivation to change. Ambivalence is a stage in the normal process of change, and must be resolved for change to occur. Motivational interviewing can be effective for those who are initially ambivalent about making behavior changes because it allows the person to explore and resolve their ambivalence.

Motivational interviewing is a collaborative process of decision-making. Its style is empathetic, nonjudgmental, supportive, and nonconfrontational. It acknowledges that behavior change is driven by motivation, not information. Motivation to change occurs when a person perceives a discrepancy or conflict between current behavior and important life goals, such as being healthy. The reasons for behavior change arise from the patient’s own goals or values, and it is up to the patient to find solutions to the problem.

Why Is It Important to Use Motivational Interviewing in Anticipatory Guidance?

Physicians have been trained to provide information, but not how to help patients change their behavior. Pediatricians often lack confidence in their motivational and behavioral counseling skills. Training in MI may improve your self-confidence in counseling skills and your efficacy in helping patients change behavior.

Motivational interviewing works. Randomized controlled trials have demonstrated the efficacy of MI in treating alcohol and substance abuse problems.

Motivational interviewing also is being used to address other health behaviors, such as eating, smoking, physical activity, and adherence with treatment regimens.

Motivational interviewing may be useful with adolescents. Because of its lack of authoritarian style and avoidance of confrontation, MI may be effective in counseling adolescents.

How Do You Do Motivational Interviewing?

The acronym OARES summarizes the key components of MI.

- Ask Open-ended questions.
  - This type of question uses the patient’s own words, is not biased or judgmental, and cannot be answered by a simple “yes” or “no.” For example, instead of asking, “Are you feeling OK?” you might restate the question as, “Help me understand how you feel.”
• **Affirm what your patient says.**
  - Affirmations are statements that recognize your patient’s strengths and efforts. Example: “You are really connected to your family and friends.”

• **Use Reflective listening.**
  - This type of listening allows you to clarify the meaning and feeling of what your patient says. Examples: “It sounds like you are not happy in the relationship with your boyfriend.” “You feel like nobody understands you.”

• **Elicit self-motivational statements or “change talk.”**
  - A person’s belief in his or her ability to change is a good predictor of success. The first step in affirming this belief and to elicit “change talk” is to ask the patient about their level of “importance and confidence” in making a behavior change using the following scale.°³

```
<table>
<thead>
<tr>
<th>IMPORTANCE</th>
<th>CONFIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>Not at all</td>
<td>Somewhat Very</td>
</tr>
<tr>
<td>Not at all</td>
<td>Somewhat Very</td>
</tr>
</tbody>
</table>
```

- Follow this “importance and confidence” questions scale with 2 probes: “You chose (STATE NUMBER). Why didn’t you choose a lower number?” This question elicits arguments for change by the patient. Then ask, “What would it take to get you to a higher number?” This identifies barriers.°³

• **Summarize.**
  - At the end, summarize your conversation and decisions. This links together and reinforces what your patient has stated.

The acronym **FRAMES** is a brief adaptation of MI.°⁵

- **Provide Feedback** on the risks and consequences of the behavior.
- **Emphasize the patient’s personal Responsibility** to change or not to change. “It’s up to you.”
- **Provide Advice**—your professional opinion and recommendation.
- **Offer Menus.** You provide a menu of strategies, not a single solution. The patient selects the approach that seems best for him or her.
- **Show Empathy.** A positive, caring manner will foster rapport.
- **Encourage Self-efficacy.** Encourage positive “change talk” and support your patient in believing that he or she can change the behavior.

Continued resistance may indicate that you misjudged your patient’s readiness or motivation to change.°¹²

Be empathetic and use reflective listening. You could respond by saying, “It sounds like this may not be the right time for you to make a change. Perhaps you are concerned about something else.”

**What Results Should You Document?**

Document topics (behaviors) discussed, the patient’s level of importance and confidence in making change, plans for follow-up, and time spent counseling.
Counseling and/or Risk-Factor Reduction Intervention Codes

<table>
<thead>
<tr>
<th>CPT Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Counseling</td>
<td></td>
</tr>
<tr>
<td>99401</td>
<td>15 minutes</td>
</tr>
<tr>
<td>99402</td>
<td>30 minutes</td>
</tr>
<tr>
<td>99403</td>
<td>45 minutes</td>
</tr>
<tr>
<td>99404</td>
<td>60 minutes</td>
</tr>
<tr>
<td>Group Counseling</td>
<td></td>
</tr>
<tr>
<td>99411</td>
<td>30 minutes</td>
</tr>
<tr>
<td>99412</td>
<td>60 minutes</td>
</tr>
</tbody>
</table>

The American Academy of Pediatrics publishes a complete line of coding publications, including an annual edition of Coding for Pediatrics. For more information on these excellent resources, visit the American Academy of Pediatrics Online Bookstore at www.aap.org/bookstore/.

Do not use these codes to report counseling for patients with symptoms or established illness.

If counseling by the physician makes up more than 50% of the face-to-face time with the patient/family, then time may be considered the controlling factor to qualify for a particular level of evaluation and management services.

Code 99078 is for a physician providing counseling/educational services in a group setting for patients with an illness.

Resources

Articles and Books


Web Sites

Motivational Interviewing Training Workshops: http://www.motivationalinterview.org/

References

Why Is It Important to Include Tobacco Smoke Exposure and Tobacco Use Cessation in Anticipatory Guidance?

Considerable evidence demonstrates the harms of both tobacco use and tobacco smoke exposure, with the 2006 Surgeon General’s report indicating that there is no safe level of tobacco smoke exposure.2 Given that the only way to completely protect against tobacco smoke exposure is for all smokers to quit, it is imperative that all families are screened for tobacco use at each medical visit, advised to quit, and offered assistance to quit. The literature shows that counseling and nicotine replacement each double the likelihood that a smoker will quit.3

As shown here, tobacco use can have harmful effects throughout the life cycle.

Tobacco Smoke Exposure

Tobacco smoke exposure can have harmful effects on the fetus. Prenatal exposure to tobacco, either through maternal tobacco use or exposure to tobacco smoke, is associated with low birth weight, intrauterine growth restriction (small for dates), placental abruption, premature delivery, sudden infant death syndrome, and neurocognitive harms.2

It can have harmful effects on infants and children. Exposure to tobacco smoke is associated with increased risk of upper and lower respiratory infections, increased incidence and exacerbation of reactive airway disease, and permanent decrease in lung function. It also increases the chance that a child will initiate tobacco use and potentially become addicted, with all of its associated harms. It is not safe to “try” using tobacco, as about half of youth who try a few puffs will progress, and about a quarter will become established users.

Tobacco Cessation

Tobacco use addiction is a preventable disease. Risk factors for initiating tobacco use include

- Parent, sibling, and/or friends use tobacco (source of first cigarettes and other tobacco products, modeling of behavior, normalization of behavior)
- Media exposure, including smoking and use of tobacco products in movies

Depression, anxiety, psychiatric disorders (major and minor)

See the “Tobacco Dependence” chapter for more details on assessing tobacco use and dependence among adolescents.

**Many smokers and other tobacco users want to quit.** Most adult tobacco users want to quit and have already made one or more quit attempts. They are receptive to cessation advice from their child’s pediatrician.

**Pharmacotherapies increase the chance of successful quitting.** Pharmacotherapies include a variety of nicotine replacement therapies (NRTs). Patients younger than 18 need a prescription, even for over-the-counter (OTC) products, because use among this age group is off-label.

<table>
<thead>
<tr>
<th>NICOTINE REPLACEMENT OPTIONS</th>
<th>DOSAGE</th>
<th>TREATMENT DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PATCHES (OTC)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotine Patch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 mg (pack 1+/day)</td>
<td>14 mg</td>
<td>Initial: 1 patch/16–24hrs</td>
</tr>
<tr>
<td>10–15 cig/day</td>
<td>7 mg</td>
<td>MAX: Same as above</td>
</tr>
<tr>
<td>(&lt;10 cig/day)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GUM (OTC)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotine Gum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 mg (&gt;20 cig/day)</td>
<td>2 mg</td>
<td>Initial: 1 piece every 1–2 hrs</td>
</tr>
<tr>
<td>(&lt;20 cig/day)</td>
<td></td>
<td>MAX: 24 pieces/24hrs</td>
</tr>
<tr>
<td><strong>NASAL SPRAY</strong></td>
<td></td>
<td></td>
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<tr>
<td>Nicotrol NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 mg/mL</td>
<td></td>
<td>Initial: 1–2 doses/hr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAX: 5 doses/hr or 40 doses/day</td>
</tr>
<tr>
<td><strong>INHALER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotine Inhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 mg/cartridge</td>
<td></td>
<td>Initial: 6–16 cartridges/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAX: 16 cartridges/day</td>
</tr>
<tr>
<td><strong>LOZENGE (OTC)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 mg</td>
<td>1 loz/1–2 hrs(wks 1–6)</td>
<td>12 wks</td>
</tr>
<tr>
<td>4 mg</td>
<td>1 loz/2–4 hrs(wks 7–9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 loz/4–8 hrs(wks 10–12)</td>
<td></td>
</tr>
<tr>
<td><strong>NON-NICOTINE MEDICATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUPROPION HCL SR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zyban</td>
<td></td>
<td>Initial: 150 mg/day (days 1–3)</td>
</tr>
<tr>
<td>150 mg tablets</td>
<td></td>
<td>300 mg/day (day 4+)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAX: 300 mg/day</td>
</tr>
<tr>
<td>VARENICLINE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chantix</td>
<td></td>
<td>Initial:</td>
</tr>
<tr>
<td>0.5 mg tablets</td>
<td></td>
<td>Starter pack (days 1–30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/twice a day (days 31–84)</td>
</tr>
</tbody>
</table>

Inclusion of this adult dosage chart is strictly for the convenience of the prescribing provider. Consult with the *Physicians’ Desk Reference* for complete information and contraindications. This chart does not indicate or authorize insurance coverage for any of these medications. For insurance benefit coverage, contact insurer directly.
Some insurance plans cover OTC products. Pharmacotherapies include:

- Over-the-counter products, including nicotine gum, patch, lozenge. Be sure to read the directions for use. Using combinations of NRTs is recommended by the Tobacco Treatment Guideline to improve quit rates; however, combination use is considered off-label. Examples include use of the patch all day and chewing gum or using a lozenge when experiencing a craving. Most persons who report failure of these products as an aid to quitting used the product incorrectly, usually by not using the product as frequently as recommended.

- Prescription NRTs, including nicotine inhaler and nasal spray. Some incidence of addiction to these products has occurred. Prescription NRTs are typically covered by insurance plans.

- Other prescriptions that are non-nicotine include the selective serotonin reuptake inhibitor, bupropion, or the selective nicotinic modulator, varenicline.
  - Bupropion (Zyban). Reduces cravings and is prescription only. Begin using 7 to 14 days before quit date and continue for 12 or more weeks after quitting. Use may be combined with NRT products.
  - Varenicline (Chantix). Prescription only, a selective nicotinic receptor modulator. May be more effective than bupropion. Also used for 12 or more weeks. Do not combine with NRT products.

**Adolescent Tobacco Users**

Evidence is mixed on adolescent-specific approaches. The same techniques for cessation should be used with adolescents that you would use with adults, tailored to the adolescent.

**How Should You Screen and Counsel for Tobacco Use Cessation?**

Use the AAR or “5 As” Approach

There are 2 recommended approaches to tobacco use cessation in the pediatric office setting. At a minimum, with parents as well as youth, ASK about tobacco use and tobacco smoke exposure, ADVISE to quit, and REFER for assistance to local resources or quit lines.

More effective, but more time consuming, are the 5 As.

- **Ask**
  - Obtain an applicable history from all patients and families.
  - Ask about current and past tobacco use, tobacco smoke exposure, and tobacco use before and during pregnancy. Some 70% of women who quit smoking during pregnancy will relapse in the first year of their baby’s life.

- **Advise**
  - Look for “teachable moments.”
  - Personalize the health risks of tobacco use.
  - Use clear, strong, personalized messages: “Smoking is harmful for you (and your child). Would you like to quit?” “How can I help you?”

- **Assess**
  - Determine whether the patient or parent is willing to make a behavior change.
  - Establish whether he or she is willing to try to quit tobacco use at this time.

- **Assist**
  - Provide information about tobacco use cessation to all tobacco users.
  - Strongly urge 100% smoke-free (and tobacco-free) home and car.
  - Help patients and parents set realistic and specific goals.
    - “Quit” date
    - “Smoke-free home and car” date
  - Help patients and parents prepare.
    - Get support.
    - Anticipate challenges.
    - Practice problem-solving.
    - Provide information about pharmacotherapy and cessation resources.
• Provide supplemental materials.

• Refer to telephone quit lines—preferably with “active” fax referral process that can be initiated in the medical office. Many quit lines will call the client directly, rather than having the smoker make the initiative to call by themselves. Many states have fax referral forms for medical practitioners to use. The United States universal quit line number is 1-800-QUIT NOW. This will refer directly to the state from which the phone call is initiated.

● Arrange Follow-up.
  ▶ Plan to follow up on any behavioral commitments that your patient makes.
  ▶ Schedule follow-up in person or by telephone soon after an important date, such as a quit date or anniversary.

Anticipate With Younger Patients

Anticipating is sometimes called the “sixth A.” Discuss tobacco use with preteens and teens during health supervision visits. Include tobacco use with discussions of other risk behaviors, including alcohol, substance abuse, and sexual activity.

Be Prepared for the Unwilling and Not Ready

For the unwilling/not ready

The “5 Rs”

Relevance
  • Discuss with the family and/or patient why quitting is particularly relevant to them, being as concrete as possible.

Risks
  • Encourage the patient to identify the risks of tobacco use, highlighting the risks that are particularly salient to the patient.

Rewards
  • Encourage the patient to identify the benefits of tobacco use, highlighting the benefits that are particularly salient to the patient.

Roadblocks
  • Discuss and identify with the patient what they feel are the current barriers and help to identify solutions (eg, pharmacotherapies) that could address these roadblocks.

Repetition
  • Discuss and use motivational techniques at every encounter. Encourage and remind patients that have failed attempts that most people make several attempts prior to cessation success, and that each time a cessation attempt is made, even if the attempt is unsuccessful, the tobacco user learns about cues to smoke, ways to combat the cues, and other lessons about quitting.
Another suggestion is to write a prescription for a 100% smoke- and tobacco-free home and car. This conveys a message to the family, including those members not at the medical visit, about the importance of creating completely smoke-free places. Changing the acceptability of smoking inside homes and cars can be an important step toward tobacco use cessation.

**What Should You Do When You Identify Tobacco Smoke Exposure or Use?**

- For patients and parents who use tobacco, follow the 5 As. Until the person quits, advise him or her to make their home and car smoke-free. Congratulate families for the efforts they are making to protect children from the harms of tobacco smoke exposure, and encourage them to continue to move toward quitting completely.

- For those who have quit, offer congratulations!
  - For those who quit during pregnancy, offer congratulations. Encourage them to stay quit after delivery, and offer support to help them stay quit.

- For those who are exposed to tobacco smoke, advise them to make their home smoke-free.

- For those who may be using tobacco periodically, advise them to stop before they become hooked.

**What Results Should You Document?**

Tobacco use and smoke exposure status of the family and household members should be documented, including former smoking status given the risk of relapse. Include in the problem list, summary list, and electronic medical record (EMR).

Follow up at every opportunity—develop a reminder system, either paper-based or EMR.

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**Resources**


**Evidence-based Guidelines**

*Treating Tobacco Use and Dependence.* Guideline products for consumers, primary care clinicians, specialists, health care administrators, insurers, and purchasers of insurance are available. See the Web site: http://www.surgeongeneral.gov/tobacco/. Also available at the Smoke Free Homes Program Web site.

**Tools**

Smoke Free Homes: The Professional’s Toolbox: http://www.kidslivesmokefree.org/toolbox/

**Books**


Articles


Web Sites

The AAP Richmond Center of Excellence: www.AAP.org/Richmondcenter
Provides materials and resources for pediatricians and other pediatric clinicians.

The Smoke Free Homes Program: http://www.kidslivesmokefree.org/
Provides materials and resources for pediatricians and other pediatric clinicians.

References


2. USDHHS. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2006

Why Is It Important to Include Weight Maintenance and Weight Loss in Anticipatory Guidance?

Focusing on childhood obesity is now an urgent priority for pediatricians.2 Almost one-third of children (31.7%) older than 2 years have a body mass index (BMI) greater than 85%,3 16.9% have a BMI greater than 95%, and 11.9% have a BMI greater than 97%. Almost 10% of children aged birth to 2 years have weight for height greater than the 95th percentile. There are differences in prevalence of overweight and obesity by age, with significant increases in BMI over the 85th, 95th, and 97th percentiles from toddlers to 6- to 11-year-olds. There was no significant difference in BMI percentiles between 6- to 11-year-olds and adolescents (Figure 1).3

While there is no difference between prevalence of obesity in boys and girls in the total population, Mexican-American boys were more likely to have higher BMIs at each BMI classification than Mexican-American girls, and Hispanic boys were more likely to have a BMI greater than 95% than Hispanic girls. There were no differences between non-Hispanic white and non-Hispanic black boys and girls.3

Bright Futures identifies healthy weight promotion as 1 of 2 critical themes within the guidelines. Recommendations in Bright Futures are consistent with the Prevention and Prevention Plus stages outlined in the Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child Adolescent Overweight and Obesity.1 With the widespread acceptance and dissemination of the Expert Committee Recommendations, coupled with the special significance Bright Futures places on healthy weight promotion, additional interventions included in the Expert Committee Recommendations are discussed.

Figure 1.
BMI percentiles by age and gender

There are differences in prevalence of high BMI percentile by race/ethnicity. Hispanic boys were more likely to have a higher BMI than non-Hispanic white boys, and non-Hispanic black girls were more likely to have high BMIs than non-Hispanic white girls (Figure 2).3

There are persistent disparities “associated with socioeconomic status, school outcomes, neighborhoods, type of health insurance, and quality of care”4 that will continue to need to be addressed.
Prevention is crucial because obesity is progressive. If untreated, a 13-year-old adolescent with a BMI greater than 95% has a 64% chance of being an obese 35-year-old, and chances of being an obese adult increase with the age of the obese teen. Even more worrisome is that an obese 5-year-old has a 30% probability of becoming an obese adult, and higher weight gain in the first 5 months of life has been correlated with obesity at 4.5 years.

With another generation of obese children entering adulthood, health care costs for obesity-related illness continues to escalate, accounting for 9.1% of total health care spending in 2008. The economic costs of obesity add to the cost to the child, family, and society of the loss of a healthy childhood. Obesity alters the trajectory of healthy growth and development in the domains of physical and mental health, emotional well-being, and psychosocial functioning.

A whole host of obesity-related comorbidities, such as type 2 diabetes, polycystic ovarian syndrome, non-alcoholic steatohepatitis, hypertension lipid disorders, upper airway obstructive sleep apnea syndrome, Blount’s disease, and slipped capital femoral epiphysis, affect obese children. Weight maintenance and weight loss are necessary to help prevent progression of these conditions.

### Should You Screen/Assess for Overweight or Obesity?

Body mass index screening is recommended for all children as a first step toward universal obesity prevention and treatment. This means that all children should have BMI calculated and classified at every well-child visit. Bright Futures recommends assessing BMI for all children beginning at age 2 and plotting weight for length for children younger than 2. Body mass index screening should be incorporated into the office workflow with help from the office team. An electronic calculator, BMI table, or BMI wheel can be used to calculate BMI, and BMI charts can be used to classify BMI percentile. Severity categories are based on BMI, which is calculated from height and weight (wt [kg] /ht [m^2] or wt [lbs]/ht [in] x 703) and plotted on BMI growth charts to obtain BMI percentile referenced to age and gender based on population data. The report recommended the classification of BMI percentiles as:

- **Underweight**: less than 5th percentile
- **Normal weight**: 5th to 84th percentile
- **Overweight**: 85th to 94th percentile
- **Obese**: 95th to 99th percentile
- **Morbid (severe) obesity**: greater than 99th percentile

Classification of BMI category is the first step toward further assessment and treatment.

### How Should You Screen/Assess for Overweight and Obesity?

In discussing obesity prevention and treatment, the Expert Committee Recommendations suggested a staged approach, which applied both to BMI classification and the resources needed to carry out obesity prevention and treatment.

- **Prevention** is universal for children with BMI between the 5th and 84th percentile and includes review of healthy lifestyle behaviors, and the normal family risk, review of systems, and physical examination that would take place in the primary care office at well visits and other opportune visits.
Prevention plus targets children with BMI between the 85th and 94th percentile classified as overweight and includes review of healthy lifestyle behaviors, family risk, review of systems, physical examination, and laboratory screening. Recommended labs include lipid panel with addition of fasting glucose and liver function studies if the child has additional risk factors. Practitioners should target any problem dietary and activity behaviors, review risks, and use patient-directed behavioral techniques to encourage lifestyle change. This intervention would occur in primary care practice and include monthly revisits.

Structured weight management includes overweight children with health risk factors and children whose BMI is greater than 95% classified as obese. Evaluation includes review of healthy lifestyle behaviors, family risk, review of systems, physical examination, and laboratory screening. Recommended labs include lipid panel, fasting glucose and liver function studies, and other studies as clinically indicated. The practitioner would provide increased structure and goal setting, and could include referral to a dietitian or exercise specialist. This intervention could be a structured program or a series of structured revisits at the primary care level.

Comprehensive multidisciplinary interventions would occur in a multidisciplinary obesity program, which could include a pediatrician, dietitian, exercise specialist, social worker, and mental health provider experienced in pediatric obesity. This stage would be for children who did not have success in previous stages and for children with severe obesity and/or obesity-related comorbidities, and would occur at a hospital clinic level.

Tertiary care intervention occurs in the hospital setting for children with severe obesity and/or obesity-related comorbidities and includes a multidisciplinary obesity team as well as pediatric subspecialists. This intervention would be prepared to offer intense medical and surgical treatment and occur at the hospital level.

For all overweight/obese patients it is important to assess for obesity comorbidity risk in the family history and review of systems as well as signs and symptoms of obesity-related comorbidities. These findings can often provide motivation for families to change to healthier lifestyle behaviors. The American Academy of Pediatrics (AAP) 5-2-1-0 Pediatric Obesity Clinical Decision Support Chart supports decision-making on assessment, evaluation, and laboratory testing.8

What Anticipatory Guidance Should You Provide if You Find Abnormal Results?

Prevention

All children in the BMI range from 5% to 84% should have prevention counseling at well visits and at any other opportune patient-physicians encounters. The content of this visit may be a review of the following:

- 5—Consume at least 5 servings of fruits and vegetables daily.
- 2—View no more than 2 hours of television per day. Remove televisions from children’s bedrooms. No television viewing is recommended for children younger than 2.
- 1—Be physically active at least 1 hour per day.
- 0—Limit consumption of sugar-sweetened beverages (eg, soda and sports drinks).

It is also important to continue to encourage and promote maintenance of breastfeeding, which has a positive effect on obesity prevention9 in addition to all its other benefits.

Beginning with the 5-2-1-0 message allows you to work with the family on considering what healthy lifestyle changes they are interested in trying, helping parents and children strategize about how to implement these changes, and working to set goals to measure progress.

Be positive and support small incremental steps for change.

Families find it helpful to have a reminder of their goals when they leave the visit (Figure 3).
Prevention plus is recommended for children with BMI between the 85th and 94th percentile for age and gender (overweight) and is structured to be provided in the primary care office setting. The most efficient way to provide this intervention is to use a team approach. For example, the person in the office who measures the height and weight may be the one to calculate and classify BMI, the office nurse may hand out a questionnaire to parents about healthy lifestyle behaviors, the physician may offer counseling and goal setting, and the check-out staff may ensure a timely revisit.

Behavior change begins with the provider helping the family/patient recognize the need for change by providing information about the child’s current health status. It is important to assess willingness and capacity to change as a way of engaging the patient and family in moving toward action. Setting small achievable goals that work toward the desired behavior change helps patient and families succeed. Motivational interviewing is a technique that was recommended by the Expert Committee to help engage the family and patient in dialogue about change.1

The healthy eating and physical activity habits recommended for prevention plus in addition to 5-2-1-0 and breastfeeding include

- Prepare meals at home rather than eating at restaurants.
- Eat together as a family at the table at least 5 to 6 times per week.
- Eat a healthy breakfast daily.
• Include the entire family in making healthy lifestyle changes.
• Allow the child to self-regulate his/her meal when parents have provided a healthy meal in an appropriate portion size.
• Assist families in shaping recommendations to be consistent with their cultural values.

The goal for this stage is weight maintenance that with continued growth will reduce BMI. If after 3 to 6 months of monthly visits the patient has not improved, proceed to Stage 2.

**Structured Weight Management**

The primary difference between prevention plus and structured weight management is that there is a specific plan to support the patient and family around behavior change. This could be carried out in a primary care office with additional support from a dietitian, counselor, physical therapist, or exercise therapist with training in pediatric obesity.

Goals for this stage include the goals as above for prevention plus in addition to

- Development of a plan for utilization of a balanced macronutrient diet emphasizing low amounts of energy-dense foods
- Increased structured daily meals and snacks
- Supervised active play of at least 60 per day
- Screen time of 1 hour or less per day
- Increased monitoring (eg, screen time, physical activity, dietary intake, restaurant logs) by provider, patient, and/or family

This approach may be amenable to group visits with patient/parent component, nutrition, and structured activity.

The goals for this stage are weight maintenance that decreases BMI as age and height increases. Weight loss should not exceed 1 lb/month in children aged 2 to 11 years, or an average of 2 lb/wk in older overweight/obese children and adolescents.

• If there is no improvement in BMI/weight after 3 to 6 months of monthly visits, the patient should be advanced to the next stage of comprehensive multidisciplinary intervention.

**Comprehensive Multidisciplinary Intervention**

This treatment usually is delivered in a pediatric weight management program by a multidisciplinary team composed of a behavioral counselor, a registered dietitian, an exercise specialist, and an obesity specialist.

**Tertiary Care Intervention**

This hospital-based intervention includes a multidisciplinary team providing care that includes a physician experienced in obesity management, a registered dietitian, behavioral counselor, and exercise specialist with expertise in childhood obesity and its comorbidities. Standard clinical protocols should be used for patient selection and evaluation before, during, and after intervention. Bariatric surgery, including gastric bypass or gastric banding, has shown to be effective but is available at only a few centers.

Obesity treatment can be successful. Components of effective treatments have included dietary and physical activity interventions, behavioral therapy, family involvement, and access to multidisciplinary teams. Key to building treatment capacity for pediatric obesity are reimbursement models that support multidisciplinary care, support for training the needed medical personnel, ongoing parenting and family support to sustain treatment effects, and continuing research into treatment effectiveness.

**ICD9-CM Codes**

The AAP obesity coding fact sheet (available at aap.org/obesity) is a resource for practitioners and includes comprehensive coding information on obesity prevention and related comorbidities for practitioners.
Resources

Web Sites

Clinicians: American Academy of Pediatrics aap.org/obesity/health-professionals.html

Parents

HealthyChildren.org: http://www.healthychildren.org/English/health-issues/conditions/obesity/Pages/default.aspx

Families

American Academy of Pediatrics: http://www.aap.org/obesity/families_at_home.html

References


