Routine evaluation at well-child visits should include the following:

1. **Anthropometric data**, including weight, height, and calculation of BMI. Data should be plotted on age-appropriate and gender-appropriate growth charts and assessed for BMI trends (see Table 29-3).
2. **Dietary and physical activity history** (Table 29-4). Assess patterns and potential targets for behavioral change.
3. **Physical examination.** Assess blood pressure, adiposity distribution (central versus generalized), markers of comorbidities (acanthosis nigricans, hirsutism, hepatomegaly, orthopedic abnormalities), and physical stigmata of a genetic syndrome (explains fewer than 5% of cases).
4. **Laboratory studies.** These are generally reserved for children who are obese (BMI > 95th percentile), who have evidence of comorbidities, or both. Other studies should be guided by findings in the history and physical examination. The American Academy of Pediatrics endorses the government guidelines from 2011, which recommend that all 9- to 11-year-olds be screened for cholesterol. Other useful laboratory tests may include hemoglobin A1c, fasting lipid profile, fasting glucose levels, liver function tests, and thyroid function tests (if there is a faster increase in weight than height).

Table 29-4 Eating and Activity Habits for Overweight/Obesity Prevention

	ACTIVITIES FOR OVERWEIGHT/OBESITY PREVENTION
INDIVIDUAL	■ Be physically active >1 hour per day ■ Limit screen time (television, computer games/Internet, video games) to <1–2 hours per day (no TV for child <2 yr of age) ■ Consume five or more servings of fruits and vegetables per day ■ Minimize consumption of sugar-sweetened beverages ■ Consume a healthy breakfast every day
FAMILY	■ Eat at table, as a family, at least five to six times per week ■ Prepare more meals at home rather than purchasing restaurant food ■ Allow child to self-regulate his or her meals and avoid overly restrictive feeding behaviors ■ Do not reward children with food or drinks ■ Have only healthy foods available for snacking ■ Encourage outdoor activity
COMMUNITY	Schools ■ Serve healthy foods ■ Limit what is available in vending machines ■ Have physical activity daily ■ Have outdoor recess daily ■ Teach healthy eating Health Care Providers ■ Take a nutrition history ■ Speak to patients about healthy weight and good nutrition ■ Advise exercise
GOVERNMENT	■ Increase access to healthy food and eliminate food deserts ■ Regulate food ads or serving sizes ■ Add more sidewalks and parks ■ Emphasize safety

PREVENTION

The approach to therapy and aggressiveness of treatment should be based on risk factors, including age, severity of overweight and obesity, and comorbidities, as well as family history and support. The primary goal for all children with uncomplicated obesity and fast-rising weight-for-height is to achieve **healthy eating and activity patterns.** For children with a secondary complication, specific treatment of the complication is an important goal. Childhood and adolescent obesity treatment programs can lead to sustained weight loss and decreases in BMI when treatment focuses on behavioral changes and is family centered. Concurrent changes in dietary and physical activity patterns are most likely to provide success (Table 29-5).

Goal setting needs to be specific and attainable. Instead of recommending that the child walk or bike to school, suggest walking or biking to school two or more days a week. Rather than recommending that a child watch less television, suggest watching no television on school days. It is important to keep it simple and set one or two short-term goals at a time. In addition, behavioral risk factors need to be identified, such as avoiding fast food when family life gets hectic. Helping the family think of healthy alternatives is important.

Families need to be counseled on age-appropriate and healthy eating patterns, beginning with the promotion of **breastfeeding**. For infants, transition to complementary and table foods and the importance of regularly scheduled meals and snacks, versus grazing behavior, should be emphasized. Age-appropriate **portion sizes** for meals and snacks should be encouraged. Children should be taught to recognize hunger and satiety cues, guided by reasonable portions and healthy food choices by parents. Smaller bowls should be used, and children should never eat directly from a bag or box. No juices or soda should be the rule. Children should never be forced to eat when they are not willing, and overemphasis on food as a reward should be avoided. "Choose My Plate" by the U.S. Department of Agriculture can provide parents with a general guideline for the types of foods to be offered on a regular basis, including fruits, vegetables, grains, protein, and dairy.

The importance of physical activity should be emphasized. For some children, organized sports and school-based activities provide opportunities for vigorous activity and fun, whereas for others a focus on activities of daily living, such as increased walking, using stairs, and more active play may be better received. Time spent in **sedentary behavior**, such as television viewing and video/computer games, should be limited. Television in children's rooms is associated with more television time and with higher rates of overweight, and the risks of this practice should be discussed with parents. Clinicians may need to help families identify alternatives to sedentary activities, especially for families with deterrents to activity, such as unsafe neighborhoods or lack of supervision after school.

TREATMENT

More aggressive therapies are considered only for those who have not responded to other interventions. Treatment includes