The word “diet” carries negative connotations in the minds of adults and especially children. Currently, 62% of men and 71% of women are dieting despite this having little to no effect on our current obesity trend. The focus by providers has gradually begun to shift from placing patients on diets to discussing healthy lifestyle choices. In the busy clinic setting, it can be extremely difficult for practitioners to find the time to address the overwhelming and time-consuming issue of pediatric obesity. The message delivered to families must be both practical and brief. For this reason, we developed the “S.A.F.E.” message to focus, in an efficient and effective manner, on four major nutritional blind spots related to obesity.

Excess Calorie Traps and S.A.F.E. 

One approach to both preventing and treating childhood obesity is to identify practical solutions that yield measurable changes in a child’s weight. We have created a simple acronym that any practitioner can use to prompt discussion of common reasons for excess weight gain in children and adolescents. The acronym—S.A.F.E.—stands for Soft drinks or sugary beverages, After-meal snacks, Fast foods, and Exercise (Figure 1). Although there are other possible interventions, current research would support these as first-line topics to explore and address specifically with families.

Soft drinks or sugary beverages

Soft drinks (sugary drinks), whether in the form of sweetened carbonated beverages, juice drinks, sweetened tea, or sport drinks, are a primary source of excess calories in the diets of most children. Beverages now contribute 17–18% of the energy in the diets of young children. Because these are discreet forms of excess caloric intake and are easily recognized by children and families, clinicians should make a concerted effort to influence their consumption.

American teenagers drink more carbonated soft drinks than water. A recent report quantified the energy imbalance responsible for the increase in body weight among U.S. children during the past 20 years and concluded that it could be accounted for by the caloric excess of ~ 150 calories per day. This is the amount of calories found in a standard 12-oz sweetened soft drink. Individual serving sizes and the availability of soda pop has expanded greatly during the past 20 years. The caloric impact of sweetened drinks is largely underappreciated. In fact, many consumers believe that clear soft drinks are “healthier” than an equal amount of a dark-colored soda of equal caloric density. Marketing strategies for high-energy sports drinks also have most consumers believing they are healthy choices as leisure drinks. Fruit juice consumption by many toddlers is far in excess of what they need for health maintenance, resulting in liquid caloric overload.

When queried, some families will exclude liquids in their consideration of a child’s caloric intake and focus primarily on solids. Portion sizes are also excessive with most drinks. Standard volumes for bottle soda pop are now 20 oz (2.5 servings), although smaller (12-oz) options remain available. The size of beverage servings will influence intake. Use of larger beverage containers results in increased intake no matter what beverage is in the glass.

Figure 1. S.A.F.E. office wall poster.
In most American fast-food restaurants, unlimited soft drink refill options are now an industry standard, encouraging further excess intake. Given these observations, intervention related to liquid caloric intake should be a top priority.

The following are some strategies health care professionals can suggest to help decrease patients’ caloric intake from sugary beverages:

- Substitute noncaloric carbonated drinks for their sweetened counterparts. Keep in mind that many children and their families are accustomed to the taste and flavor of many of these drinks. Change may need to be incremental if resistance is met.

- Reduce total volume of beverages consumed. In the case of many morbidly obese teens, daily soft drink consumption may be measured in liters. Simply reducing the total volume consumed each day, even if the composition of the drink is not changed, could result in a reduction in the rate of weight gain.

- Switch to milk products with a lower percentage of fat and a decreased amount of sugar. Often chocolate or strawberry milk may be a source of excess calories and fat.

- Make suggestions to increase noncaloric liquids. Alternatives include water and noncaloric sweetened drinks.

- Develop behavioral contracts and a plan for follow-up. Both are effective methods for making these approaches work.

- Provide positive feedback. Any reduction in the rate of weight gain should be noted as a positive effect and used to encourage further change.

One way to visually educate both children and families is to show them the amount of sugar in a sweetened soft drink. For example, the caloric equivalent of 17 teaspoons of sugar is found in a sweetened 20-oz carbonated beverage (dark or clear). In our clinic, the sugar packet display we keep adjacent to the height and weight scales consistently attracts the attention of both children and parents. The packets are taped end on end and hung on the wall.

After-meal snacks
Another source of excess calories is after-meal snacks. When obtaining a nutritional history, some families may overlook reporting the intake from processed snack foods. In many cases, parents may be unaware of the amount of snack foods that their children consume, because such items may be easily purchased outside the home or the child may be home alone after school. One 12-year-old boy we interviewed truly believed that the snack foods he consumed “didn’t count” toward his problem with excess weight.

Each year, > 2,000 new commercial snack products are introduced into the marketplace. Few of them would be considered healthy by any definition. Also, like soft drinks, these foods are packaged in multiserving sizes. In theory, these foods would either be: 1) shared with others or apportioned according to serving size, or 2) resealed and eaten one serving at a time. Most readers would agree that in only a small number of cases do either of these situations actually occur.

The caloric density of snack foods is often quite high, and the typical child seriously underestimates their impact. Clinicians are advised to educate children and families about the impact of frequent and indiscriminate snacking and how the calories consumed may rival or greatly exceed those consumed at a regularly scheduled meal. When children frequently take in calories, the reduced amount of time each day that they spend in a fasting state does not allow for consumption of stored (fat) energy.

Two simple suggestions for after-meal snacks include:

- Making specific suggestions for changing snacks to fresh fruits and vegetables.
- Instructing families to look for snacks with < 3 g of fat per 100 calories.

Fast foods
Fast foods have been linked to excess calorie consumption for several years. Fast-food restaurants are disproportionately located not only in lower-income areas, but also around schools. Fast-food purchases made on credit cards have increased from $1.7 billion in 2000 to $37 billion in 2005, with an average per-purchase expenditure of $10.75. This results in increased caloric intake for consumers purchasing these foods.

Marketing of fast foods specifically targets children through television ads; children’s meals, which include toys; and playgrounds located on restaurant premises. These restaurants are popular destinations for children. In fact, visits to them often serve as rewards for various behaviors parents wish to encourage. Some fast-food children’s meal portions may have enough calories for an average adult. Some chains are now reacting to the call for change by offering smaller portion sizes and healthier food options. Ultimately, however, most foods served at fast-food restaurants are simply assembled and heated or cooked before serving. Nutritionally, they do not compare to foods prepared from scratch and from completely fresh ingredients.

Still, the reality is that a majority of children in the United States will consume fast foods at some point in their lives. They are ingrained into 21st century culture and are not likely to disappear anytime soon. Clinicians must acknowledge this reality and work to educate families on managing their exposure to fast foods.

Some practical suggestions are:

- Decrease the frequency of eating at fast-food restaurants.
- Order only regular-sized portions; do not order larger portion sizes when prompted by the sales attendant to “super-size.”
- Limit when these foods are introduced and the frequency they are consumed, and encourage better choices when the family chooses to go.

Using one stick of butter to illustrate the amount of fat found in a typical large commercial cheese-
burger and a large order of French fries is an effective visual tool. Tubes containing the amount of fat and sugar in common fast-food preparations can be kept in the office and shown to children and parents.

**Exercise**
Exercise is the only practical way that any child will correct excess weight gain. The problem is finding an activity the child will like and providing the support needed to encourage ongoing involvement from children and families. Some obese children may already be debilitated by their weight, and any sustained physical activity will be considered a challenge.

Some simple strategies for working on this issue with parents and children are:
- Promote walking if the child is not doing any substantial activity.
- Limit television, computer, and video game time. Compared to an equivalent time viewing commercial children’s television, sedentary time spent reading is less associated with excessive weight gain. Perhaps this is because readers are not exposed to frequent, repetitive advertising for snacks and fast foods while reading a book.
- Encourage the entire family to increase their physical activity by making small changes, such as parking farther away from stores, taking stairs, and having all family members participate in household chores.

**Putting the S.A.F.E. Message Into Action**
To assist clinicians with identifying and focusing families on measurable lifestyle changes, a simple checklist can be created and given to families, signed like a conventional prescription (Figure 2). The task is to identify two or three key areas to change (rather than checking off all the boxes) and to use the power of the clinician’s signature to emphasize the importance of this request for change. Setting small, measurable, and achievable goals is the purpose of the S.A.F.E.-script (Figure 2). A copy can then be maintained in the patient’s file and progress reviewed (and new goals set) at the next clinical encounter.

Often, parents may request a specific weight to reach. This is generally to be discouraged because lifestyle behaviors should be emphasized over specific pounds or kilograms of body weight to be lost. Many severely obese children may need to lose > 100 lb to reach what might be considered an “ideal” body weight. Setting an unrealistic expectation serves to discourage many children and parents. Often, success can be measured as slowing down or stopping a rapid increase in weight. If no change is noted and weight continues to increase, perhaps more focused single changes need to be negotiated and reasons identified why the agreed-on changes were difficult to achieve. It is important to focus on successes and to de-emphasize setbacks. A positive approach by providers is essential for fostering successful outcomes.

Parents and their children should be helped to appreciate the chronic nature of the problem of obesity. Recidivism is common after weight loss. It is important that regular medical follow-up occur, not only to support progress made, but also to perform appropriate screening for comorbidities as indicated.

**Figure 2. S.A.F.E.-script.**

In my professional opinion, in accordance with accepted medical practice standards, the above patient requires healthy lifestyle changes for the problems indicated above.

<table>
<thead>
<tr>
<th>Patient’s name:</th>
<th>Diagnosis:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please try to make the following changes (check each that apply):

- [ ] Drink ____ glasses of water each day
- [ ] Substitute diet for regular soft drinks
- [ ] Limit all juices to less than ____ ounces a day
- [ ] Limit sport drinks for sports only, they contain calories
- [ ] Eat at least ____ fruits and vegetables each day
- [ ] Don’t skip breakfast
- [ ] Reduce eating fast foods to less than ____ times a week
- [ ] Avoid super sizing your food or drink portions
- [ ] Reduce fried foods to less than ____ times a week
- [ ] Walk at least _____ minutes each day
- [ ] Purchase a pedometer and try to walk ______ steps a day
- [ ] Reduce TV viewing time to less than _____ hours a day
- [ ] Other changes: ____________________________

In my professional opinion, in accordance with accepted medical practice standards, the above patient requires healthy lifestyle changes for the problems indicated above.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>
Clinician Reimbursement

One major obstacle to providers is reimbursement. Many children at greatest risk for obesity are from lower socioeconomic groups, resulting in a higher likelihood of being on public assistance health insurance (e.g., the State Children’s Health Insurance Program or Medicaid) or lack any insurance coverage whatsoever. Therefore, lack of access to health insurance may be the single greatest obstacle to treating overweight and obesity in children. Ironically, most health insurance plans provide adequate coverage for all or most of the comorbidities of untreated obesity (e.g., diabetes, hypertension, and dyslipidemia) in children and adults.

Providers should be sure to have access to the proper billing codes for the problems encountered in overweight and obese children. Before obesity or its complications are diagnosed, do not use “rule out obesity” as the diagnosis. Instead, use as many diagnosis codes as apply to report a patient’s signs and symptoms or adverse environmental circumstances and to document the patient’s complexity. Once obesity or its complications are diagnosed, report the appropriate definitive diagnosis code(s) as the primary code, plus as many other symptoms or complications that the patient is exhibiting as possible as secondary diagnosis codes. Counseling diagnosis codes can be used when patients are present or when counseling parents or guardians when patients are not physically present. V-codes are used for occasions when circumstances other than a disease or injury are recorded as “diagnoses” or “problems.” Some insurance carriers may request supporting documentation for the reporting of V-codes.

Conclusion

Providing care for overweight or obese children is a commonplace event. For some, it may be a daily event. Lack of time and provider apathy may be reasons weight is not discussed in any meaningful way during clinical encounters. Maintaining health of patients within their abilities is the goal.

It is important to realize that children are part of family units and that obesity is a family condition in the majority of cases. Families need to be part of the solution and to make many (if not all) of the changes on behalf of their children. Despite the seeming wealth of information available to us through the Internet, print, radio, and visual media, many of our attitudes regarding health and wellness remain heavily influenced by family and friends. Sadly, the amount of nutritional disinformation available to children and parents is never to be underestimated. Much of what forms the nutritional knowledge base of most individuals suffering from overweight or obesity is obtained through commercial (advertising) sources whose ultimate goal is to increase food or drink product sales to the public.

Increased activism to prevent childhood obesity has been advocated by the American Academy of Pediatrics. Specific recommendations for change include decreasing the advertising time allowed during children’s programming from 12 to 6 minutes per hour. Advertisements for soft drinks and snack foods should be prohibited during shows targeting young children. Interactive advertising on digital television will arrive soon. Interactive advertising to children through this medium should also be banned.

The S.A.F.E. acronym is a simple message for practitioners to use in the busy clinic setting to focus on four major contributors to childhood obesity. Implementing just one of these interventions into a family’s lifestyle can result in a positive outcome regarding a child’s health. For example, a 16-year-old girl seen in our clinic lost 22 lb in 6 months by substituting sugar-free beverages for sugary drinks. Similar outcomes have occurred in several other patients in our practice. Encouraging families to make and maintain small, simple changes yields greater success then encouraging changes that will be impractical to maintain. As the old adage goes, “an ounce of prevention is worth a pound of cure.” Address the issue of obesity with parents and their children at an early age to improve the life-long health of the children.

References


Stephen W. Ponder, MD, FAAP, CDE, is a professor in the Department of Pediatrics at Texas A&M Health Science Center College of Medicine, College Station, and a clinical adjunct professor in the Department of Pediatrics at the University of North Texas Health Science Center in Fort Worth. He is medical director of and Meaghan A. Anderson, MS, RD, LD, CDE, is a clinical dietitian and certified diabetes educator at The Children’s Diabetes & Endocrine Center of South Texas at Driscoll Children’s Hospital in Corpus Christi.