



## **Am I Hungry? An Innovative Approach to Weight Management**

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Overweight and obesity are rampant, affecting 97 million adults in the United States.<sup>1</sup> The problem is complex, involving genetic, metabolic, physiological, cultural, social, and behavioral factors.<sup>2</sup> On the surface, the solution seems straightforward—decrease the number of calories consumed, and increase the number of calories used, and weight loss will result. However, as one begins to examine the approach to weight management more closely, it becomes clear that our current interventions are often unsatisfactory, leading us to dig more deeply.

The purpose of this paper is to help physicians and other health care professionals understand why the current solutions to the complex and significant problem of weight management are often ineffective. The discussion will address this problem from a cognitive behavioral perspective and will present five practical strategies designed to help patients finally resolve their struggles with food and weight.

### **THE CONSEQUENCES OF OVERWEIGHT AND OBESITY**

Currently, 64.5% of the adults in the U.S. are overweight or obese as defined by a body mass index (BMI) of  $> 25$  kg/m<sup>2</sup>, with 30.5% classified obese as defined by a BMI of  $> 30$  kg/m<sup>2</sup>.<sup>3</sup> Approximately 67% of men, 62% of women<sup>4</sup>, and 15% of children and adolescents are affected<sup>5</sup>. This reflects a 25% increase over the last three decades. Increases have been observed in all of the fifty states, across age groups, educational levels, major racial and ethnic groups and in both sexes.<sup>6</sup>

Obesity is recognized as a chronic, debilitating and potentially fatal disease. Health problems resulting from overweight and obesity could reverse many health gains achieved in the United States according to the report, “The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity.” Obesity ranks second only to smoking as a cause of preventable death.<sup>7</sup> Excess weight is associated with type 2 diabetes, hypertension, cardiovascular disease, stroke, dyslipidemia, osteoarthritis, cancers of the colon, breast, prostate, and endometrium, sleep apnea, gall bladder disease, and infertility.<sup>8,9,10</sup> Over 280,000 deaths per year are attributed to unhealthy dietary habits and sedentary lifestyles.<sup>11</sup>

There is a tremendous emphasis on appearance in our society and overweight and obese individuals may face significant social stigmatization and discrimination. The societal standard for size and weight is often unrealistic leading many people to suffer from a distorted and negative body image. As a related issue, there is a high prevalence of eating disorders such as anorexia, bulimia, and binge eating disorder.

Society pays a high price. Ninety nine billion dollars is spent annually to treat the medical consequences of overweight and obesity.<sup>12</sup> 40% of women and 24% of men are trying to lose weight at any given moment in time. Thirty to fifty billion dollars are spent on attempts at weight loss each year in the United States.<sup>13</sup> But paradoxically, the more they diet, the heavier our nation has become.

## **CURRENT INTERVENTIONS**

We live in a culture that has become obsessed with weight and dieting. We are constantly bombarded with the latest weight loss scheme to “rid ourselves of those unsightly pounds.” The newest fad diets scream at us from magazines and books, talk shows and news programs, commercials and testimonials, doctors’ offices and health food stores.

Most popular diets are based on some method of limiting caloric intake such as counting calories, decreasing fat grams, or by restricting certain foods such as carbohydrates. Another option is medically supervised very low calorie diets or liquid fasts but long-term weight loss is not significantly different from low calorie diets. Prescription and non-prescription weight loss medications remain in high demand despite limited usefulness and reports of significant complications. However, there are numerous pharmacological agents currently in research and development. There has been resurgence in popularity of bariatric surgery due to media attention of dramatic results. Exercise regimens remain an important part of most weight loss programs. Interventions recommended by the National Heart, Lung and Blood Institute Clinical Guidelines include low calorie diets, increased physical activity, and behavior therapy. Weight loss medications and surgical interventions may be appropriate for carefully selected patients.<sup>14</sup>

Studies have shown that even a 5 to 10% weight loss can produce significant health benefits, yet recognize that many of people have difficulty achieving permanent weight loss. Our patients want to lose the weight and are desperate for a quick fix, making them easy targets for this billion-dollar industry.

The striking reality is that diets are not very effective in the long run anyway.<sup>15</sup> In one study, less than 10% of women with a clinically significant weight loss are able to successfully maintain that loss.<sup>16</sup> Accurate statistics are very hard to come by but it is widely quoted that 90-95% of dieters regain their lost weight.<sup>17,18</sup> This is a difficult number to pin down since there are so many ways of losing weight, so many people trying it on their own, so few people followed for long periods of time, and so many people going off their diets before they lose a significant amount of weight in the first place. Whatever the true numbers, if dieting was truly effective, the problem would have been solved with the first one.

Understanding the physical and psychological reasons that diets so often fail is important if we are to make any significant progress toward resolving this health crisis.

## **THE PHYSICAL EFFECTS OF RESTRICTIVE DIETING**

A look at our primitive roots shows how our adaptive mechanisms backfire under diet conditions. Humans, like most animals, are programmed for survival. Our ancestors

were hunter-gatherers and worked strenuously for their food. When food was plentiful and they could eat whenever they were hungry, their bodies burned fuel freely and stored excess calories as fat. During times of famine, their bodies could burn the fat for fuel. Muscle that wasn't being used for activity would be broken down in order to conserve energy since muscle burns energy. In other words, their bodies could become more efficient and conserve energy to increase the chance of survival. When food became more plentiful, the lowered metabolism would allow them to quickly replace their fat stores in preparation for the next famine.

Very low calorie restrictive dieting has the same effect as a famine. The dieter's body goes into starvation mode, burning fat and muscle, which over time, can result in a 17%<sup>19</sup> decrease in the metabolic rate and a significant increase in the body's ability to store and conserve fat. As a person loses weight, their body will require fewer calories, particularly if they are not exercising regularly. This may result in plateaus of weight loss and decreased energy and motivation. Eventually, most people give up on the diet and go back to their former eating patterns. Due to their lowered metabolism, they may regain some, or all, of the weight they had lost, and sometimes, even more.

Unfortunately, when they regain weight, they regain fat, but do not regain the lost muscle. This results in a less healthy, higher body fat percentage. This is typically a cyclical process, resulting in further weight gain with each attempt at dieting. Studies have shown that those with a history of weight cycling gain more weight during a given time period than their peers.<sup>20</sup> As much as health care and weight management professionals want their patients to lose weight, they must discourage ineffective approaches that may exacerbate the problem.

## **THE PSYCHOLOGICAL EFFECTS OF RESTRICTIVE DIETING**

It is not just the body that rebels when a person diets; the mind does too. Most diets are based on limiting various foods in one way or another. By making certain foods forbidden, the dieter begins to place special value on them, driving them to develop feelings of deprivation. The end result is that they want to eat those foods even more than they did before any restrictions were placed on these foods. Since the dieter's mindset tells them that they should have willpower to resist these "bad" foods, they feel guilty and out of control when they ultimately break from their diet and give in to the powerful cravings created by feelings of deprivation. Consequently, they develop feelings of failure and lowered self-esteem that leads to even more overeating.

When they break from the diet, they blame themselves for not having enough willpower to stay on it. They usually do not see that the diet itself contributed to the problem. They will try the next diet that comes along, hoping that it will finally be the answer they have been looking for. They vow that this time, they will "be good."

Physicians may also become frustrated and discouraged and feel pessimistic about the ability of their patients to make lifestyle changes.<sup>21</sup> They may view weight loss advice as futile<sup>22</sup> and may not attempt to advise weight loss in their patients.<sup>23</sup>

## **THE RATIONALE FOR AN ALTERNATE APPROACH**

According to a growing “anti-diet” movement, the focus of diets is on an “external authority” that teaches the dieter to disregard their own “internal authority”. The latest expert defines what is “fattening” - and nearly every food has been labeled “bad” at one time or another. Diets require that the dieter maintain willpower indefinitely in order to follow the “rules.” Dieters exhibit an increased preoccupation with food, feelings of deprivation, and loss of self-esteem.

The truth is that effective weight management does not require a magical, or even logical combination of diet and exercise. To overcome weight problems, a person must develop a healthy relationship with their body and the food and activity that nurture it. The goal is to “normalize” eating to reach a healthy weight— rather than dieting repeatedly.

Think for a moment of a person that usually stays within their healthy weight range. Picture someone that seems do this rather effortlessly, rather than the person who appears to exert incredible willpower and self-control. Perhaps this person is a spouse, a friend, or a child. What characteristics and traits does this person have? What role does food serve in their lives? Think of their eating patterns – what do they eat, how often, and why? How active are they?

Certainly, people come in different sizes and shapes, and have genetically different metabolisms, and different levels of activity. However, in general, that those who maintain their healthy weight without a great deal of effort, eat when they are hungry and stop when they are satisfied. They don’t think or talk about food all of the time. They enjoy food and seem to eat whatever they want, but they turn down even delicious food if they aren’t hungry. They seem to have a lot of energy and many of them actually enjoy physical activity. Their weight is fairly stable, going up and down in a narrow range. They usually don’t diet, but they are willing to change the way they eat to improve their health. They don’t really know why they stay slim and may have difficulty understanding why overweight people can’t just stop overeating.

On the other hand, people who struggle with their weight and food are often disconnected from their hunger. They eat because it is mealtime, or because something looks good - whether they are hungry or not. They “eat all their dinner before they can have dessert” instead of stopping when they’ve had enough. They are often preoccupied with thoughts of food. They may reward, comfort, or entertain themselves by eating, but feel guilty when they eat “bad” foods. They may complain of a lack of energy and view exercise as a punishment for their overeating. They diet to try control their weight, but when they break the “rules,” they will give up and return to overeating, and may gain more weight than they lost. They may think that slim people just have more willpower than they do.

There are key differences between most healthy weight people, and those with food and weight problems. Most people without food and weight problems intuitively use hunger as their guide for when, what, and how much to eat. When their body needs fuel, they become hungry, triggering an urge to eat. Without even thinking about it, they know that they need food, so they eat. When their hunger is satisfied, they stop eating. This “intuitive eater” maintains their weight within a narrow range by listening to their body’s cues about meeting their needs. They recognize and respond appropriately to hunger.

On the other hand, those who struggle with their weight are more often guided by environmental and emotional cues. These cues trigger an urge to eat and without even thinking about it, they may start or continue to eat, whether they are hungry or not. They may also use food to distract themselves or cope with emotions. They try to control their weight by turning to an external authority for guidelines on when, what, and how much to eat. This drives them even further from recognizing and responding in a healthy way to hunger.<sup>24</sup>

## **A MULTIDIMENSIONAL APPROACH**

There are many facets to the complicated problem of weight management and many areas that could be addressed, including the various theories about the etiology and physiology of obesity (including insulin resistance), options for adjunctive medications, and future treatments. In 2003, the U.S. Preventive Services Task Force (USPTF) found insufficient evidence to recommend for or against providing low- or moderate-intensity counseling to obese patients. They did however, find good evidence that high-intensity counseling about diet, exercise, and behavioral interventions (skill development, motivation, and support strategies) can produce sustained weight loss.<sup>25</sup> The reality is that successful weight management requires a change from a “dieter’s mindset” to building the necessary skills and support to “normalize” eating.

Health care professionals can assist this process by empowering individuals to become the authority on meeting their needs and helping them learn to trust their own bodies. They are in a unique position to help patients identify medical and physical obstacles, such as co-morbid diseases or consequences of obesity, injury or pain limiting exercise, and anxiety or depression. It is also important to be aware of other important factors including relationship or career problems, coping styles, and socioeconomic factors. Lastly, it is crucial that the medical community provide factual, practical information necessary to help the individual make the best possible choices that will improve their health.

The remainder of this discussion will focus on five strategies that patients can use to overcome their food and weight problems:

1. Recognize and Respond Appropriately to Hunger and Satiety
2. Eliminate Rigid Food and Nutrition Rules
3. Reduce Responses to Environmental Triggers
4. Develop Effective Emotional Coping Strategies
5. Increase Exercise and Lifestyle Activity

### **1. Recognize and Respond Appropriately to Hunger and Satiety**

The instinctual, drive to satisfy hunger is integral to survival. It is a primitive yet reliable way of signaling a need for fuel and therefore, regulating dietary intake.<sup>26</sup> The complex biological pathways cause hunger and satiety are not yet fully understood.<sup>27</sup> The ability to identify and respond appropriately to hunger is one of the most important differences between people who eat intuitively, people who frequently overeat, and people who diet chronically to control their weight. Hunger is the simplest yet most

powerful tool available to each person to reconnect with their innate ability to know when, what, and how much to eat.

Infants cry to let their caregiver know when they are hungry. Of course, they cry when they are wet or cold too, but most parents soon recognize the different cries, and try to meet each need appropriately. Young children have the innate ability to regulate their eating according to what their bodies need for growth.<sup>28</sup> Anyone who has cared for or observed infants and young children knows that it is difficult to make them eat when they are not hungry, and that they are almost impossible to deal with when they need food.

However, if the caregiver feeds the infant to calm any cry, a baby will learn that eating can soothe any discomfort.<sup>29</sup> Likewise, children are often forced to “clean their plates”, teaching them to ignore the physical discomfort of being too full in order to comply with their parents demands. Further, children that don’t get dessert unless they “eat all their dinner” learn that sweets are special and they will be rewarded for eating more than they were hungry for.<sup>30</sup>

Adults may move away from their intuitive ability to identify and respond appropriately to their nutritional needs if they learn to respond to environmental and emotional triggers by eating.<sup>31</sup> This usually results in weight gain, but ironically, the most common solution, dieting, forces them to further ignore their hunger cues.

Most diets focus on what people should be eating, overlooking the fact that many overweight people are eating in response to triggers other than hunger. Often, the food is not being consumed to satisfy a need for fuel, so focusing on the form of the fuel is senseless. Although dieting may temporarily lessen the caloric intake, it does not address the reason that the food is being eaten in the first place.

Rather than focusing first on food choice, it is more important to re-establish hunger as the primary cue for eating. In fact, there is really only one “rule” in this approach: “Whenever I have an urge to eat, I will ask myself, “Am I Hungry?” By consistently asking and answering this question, the person will begin to recognize when hunger has been triggered by the environment or emotions rather than by a need for fuel. This allows them to develop “internal” mechanisms for regulating dietary intake without dieting.

With most patients, it is important to start with the basics of hunger: what does it feel like, and how is that different from other sensations and urges to eat (such as stress or appetite.) Once they have identified physical hunger, they ask themselves “How hungry am I?” Postponing eating until sufficiently hungry increases satisfaction from food, while not waiting too long to eat decreases bingeing.

Once hunger identification is re-established, people also become more aware of the sensation of physical satiety. They can learn to stop eating before they are too full. Avoidance of physical discomfort becomes an internalized mechanism of portion control. If they do overeat, they simply observe the physical discomfort without judgment and recognize that it may take longer to become hungry again.

## **2. Eliminate Rigid Food and Nutrition Rules**

Once the ability to identify hunger has been re-established, it can be used to guide dietary intake. For this process to be successful, it is important that there are no rigid

food or nutrition rules. In other words, any food can be eaten within the limits of hunger. Remember, one characteristic of an “intuitive eater” is that they eat whatever they want.

A “normal” diet consists of a variety of foods, including those eaten purely for pleasure. Of course, if a diet consists predominantly of unhealthy foods, the individual may not feel well and their health may suffer. One may choose to modify their diet when they learn nutrition information that will make them feel better and improve their health.

Similarly, when an overeater begins to use hunger more regularly as their cue to eat, they become aware that they are sometimes hungry for specific foods. When pleasurable foods are not forbidden, and therefore can be eaten without guilt, there is less drive to overeat them. Interestingly and consistently, once the restrictive “external authority” is gone, and the fear of deprivation is lessened, the individual will recognize that they are hungry for a variety of foods – including healthy foods. The desire for healthier foods increases further through education and personal experience about the effect that different foods have on the body.

Humans are motivated by pleasure, not pain, so most people cannot maintain the willpower to avoid pleasurable foods permanently. Even healthy weight patients have difficulty following strict dietary restrictions, such as very low cholesterol diets. They are more likely to be compliant with moderate reductions that are supported by education on healthy alternatives, shopping, cooking, and social eating strategies.

Weight loss diets are often complicated and require numerous simultaneous changes. This may be overwhelming so the end result is that no changes are made at all. Small incremental changes are more likely to be successful.<sup>32</sup> For example, the patient could first add more fruits and vegetables to their diet, then increase their fiber intake, and then decrease the fat in their diet, etc. It is important to keep in mind that the real purpose of making dietary changes is to improve one’s health, rather than focusing on weight loss as the goal.

It is crucial that the patient receive solid, accurate, nutritional information on which to base their food choices.<sup>33</sup> Fad diets have no place in this “non-diet” approach. Factual nutrition information, along with awareness of food preferences, can be used to make healthier choices between equally appealing foods. In weight management, learning to manage pleasurable foods within the constraints of hunger and sound nutrition is a successful strategy. The end result is a balance of eating for health with eating for pleasure.

### **3. Reduce Responses to Environmental Triggers**

Research has demonstrated that people who struggle with excess weight tend to eat in response to external cues in the environment, whereas normal weight individuals are more likely to eat in response to internal cues like hunger. When food is eaten in response to a trigger, a person is more likely to overeat than if it is eaten in response to hunger. In other words, since physical hunger didn’t trigger the urge to start eating, physical satisfaction can’t signal when to stop.

Common cues that may trigger overeating include: mealtime, holidays, presence of appetizing food, advertisements, entertainment activities, social situations, people, places, and diet or weight related triggers. There are hundreds of specific examples, but

suffice it to say, the availability of calorically dense, appealing foods in increasingly larger portion sizes is a problem on both an individual and societal level.<sup>34</sup>

To modify the behavior of eating in response to environmental triggers, one must first become aware of the association. Whenever one has an urge to eat, they must ask themselves, “Am I Hungry?” To identify true physical symptoms of hunger, they should try to move away from food or situations that they associate with eating. They may then become aware that the urge to eat was triggered by their environment. They may need to distract themselves until the urge passes so it helps to have other activities available for that purpose. This process will allow them to break the habitual association between eating and certain activities, people, and places, and therefore, they will likely find themselves eating less.

#### **4. Develop Effective Emotional Coping Strategies**

All people eat for emotional reasons, including celebrating, expressing love, or finding comfort in Grandma’s apple pie. Most celebrations and social events revolve around eating. “Normal eating” includes having these emotional connections with food, but it becomes maladaptive when it is the primary way that a person copes with emotions, and weight problems may develop. To be clear, this does imply that every overweight person has major psychological problems. It simply means that, if a person is overweight, they are likely using food for purposes other than energy and nutrition at times.

Emotional triggers may cause people to eat when they are not hungry. If an individual who has an urge to eat asks himself or herself, “Am I Hungry?” they may discover that the answer is sometimes, “No.” At that point, they have an opportunity to gain insight into the other things, besides hunger, that trigger their urges to eat. They may recognize that emotional states, such as loneliness, boredom, anger, stress, or depression are triggers for them.

If someone has been using food to help them cope with stress and other emotions, then going on a diet or having bariatric surgery takes away their primary coping strategy. That is why distress increases and the overeating frequently comes back. Decreasing emotional eating is a significant barrier for many people, and probably the most common reason that diets fail.<sup>35</sup>

Instead, if they learn more effective ways of coping with their emotions, and use food less often for comfort or to avoid dealing with feelings, two things happen. First, their desire to overeat diminishes. Second, and most importantly, they meet their true needs more effectively.

Several skills and tools are needed, so it is best to approach this as a process. One must develop the ability to identify feelings and expand their range of coping mechanisms for dealing with each emotion. They can ask themselves, “What would be a better fit for this emotion than eating?” Through this process, they will begin to find fulfillment in experiences other than eating. In addition, they need to replace self-defeating thoughts and attitudes with affirming self-talk. They must also build their skills in self-care and must learn to set firm but loving limits with themselves and others to buffer themselves from stress.

## 5. Increase Exercise and Lifestyle Activity

Exercise is essential for weight loss and maintenance.<sup>36,37</sup> Studies have shown that 91% of people who successfully maintain their weight loss, exercise regularly.<sup>38</sup> In addition to weight loss, exercise has numerous well-documented health and psychological benefits.

Exercise improves health and decreases morbidity, even without weight loss.<sup>39</sup> Overweight individuals who exercise are healthier than normal weight individuals who are sedentary.<sup>40</sup> Exercise is essential for increasing caloric output and improving metabolism, therefore it can decrease weight loss plateaus. Exercise helps people reconnect with their physical body, which is important since many overweight people have disconnected with themselves from the neck down. Exercise improves one's sense of well-being.<sup>41</sup> Therefore, exercise should be viewed, not as a means to an end, but an end in and of itself.

However, exercise is uncomfortable for many overweight and de-conditioned people. Exercise must be comfortable, convenient, fun, and rewarding in order to become a habit. Sometimes, just increasing lifestyle activity, such as parking further from the building, may be an appropriate place to start. An exercise prescription tailored to the patient's abilities and condition is helpful. For optimal fitness, the program should include cardiorespiratory, flexibility, and strength components, but it is very important that the exercise program is appropriate for the patient's level of fitness and should be adjusted as their tolerance increases.<sup>42</sup>

## RECOMMENDATIONS

Health care professionals are in the best possible position to help their patients make meaningful changes that will lead to a healthier weight. They must discourage strict and/or fad dieting and help their patients and clients set realistic, attainable health goals. Encouraging small, incremental changes and maintaining a supportive environment is crucial.<sup>43</sup>

This approach can also be applied to the prevention and treatment of weight problems and eating disorders in children and teens. The incidence of overweight and obesity in people under age 17 is increasing significantly.<sup>44</sup> By helping parents, children, and teens understand and maintain their intuitive connection with hunger and learn effective ways to cope with environmental and emotional triggers, future food and weight problems may be prevented.

Knowledgeable health care providers can help their patients and clients learn to use hunger as their intuitive guide for replacing obsessions about weight, food, and dieting, with a nurturing, fulfilling, balanced life. The most important goal is to develop a healthy, satisfying relationship between the individual's body and the food and activity that nurture it.

In order to work toward resolving this the complex problem of overweight and obesity, we must look beyond the current largely ineffective approaches. As Albert Einstein said, you can never solve a problem on the level on which it was created.

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