

# NUTRITION AND GASTROENTEROLOGIC PRACTICE

Dietary Issues in the Gastrocompromised Patient

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## Weight-Reduction Counseling in Gastroenterologic and Hepatologic Practice

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### **G&H** What gastroenterologic disorders are generally associated with obese patients?

**LA** Gastroesophageal reflux disease (GERD) is very commonly seen in obese patients. It is also often seen in nonobese patients who are experiencing periods of weight gain. The other condition that is of significant concern and that gastroenterologists and hepatologists are seeing with increasing frequency is nonalcoholic steatohepatitis (NASH). Most NASH patients are referred to gastroenterologic physicians and their condition is clearly related to obesity.

### **G&H** Are there links between the pathophysiologic mechanisms of obesity and NASH?

**LA** There is considerable current research in this area. One of the most recent findings shows that in rodents, the endocannabinoid system, when activated, contributes to fatty acid synthesis and the accumulation of lipid in the liver. By blocking the endocannabinoid system, this accumulation can be prevented, thereby preventing NASH as well as discouraging obesity. This finding shows the endocannabinoid system to be a pathway common to both obesity and NASH. Research is showing that overactivation of the endocannabinoid system is also a contributor to metabolic syndrome, cardiometabolic factors, high triglyceride levels, low high-density lipoprotein

cholesterol levels, and increasing glucose levels. By blocking this system pharmaceutically, all of these factors can be improved.

### **G&H** Is your approach to weight loss therapy based primarily on diet and exercise or on the use of pharmaceuticals?

**LA** Currently, we utilize a step-therapy approach. Diet and physical activity are intensively supervised in all of our patients. If diet and exercise alone do not provide results, we use medication. I believe this approach to be the model for the future of weight loss therapy. At my center, we see significantly obese patients with multiple complications, and pharmaceutical cotherapy is something that we prescribe regularly.

### **G&H** What is the efficacy of this approach?

**LA** Historically, it has been known that the amount of weight lost with a combination of diet and physical activity tends to be in the range of 5–10% of body mass. What we now recognize is that there are multiple overlapping mechanisms that counterbalance or resist weight loss. For example, the production of ghrelin, an orexigenic gut peptide, is increased with weight loss, whereas the production of leptin, a cofactor in satiety signalling and a stimulant of muscle energy expenditure, is reduced. Therefore, with any single approach or drug therapy, we are limited by this counter-regulatory system. With that in mind, our emphasis is shifting from developing one miracle cure or magic bullet to combining therapies rationally in order to achieve better results. It has been shown that the combination of an intensive behavioral modification program and a pharmaceutical agent like sibutramine (Meridia, Abbott) can achieve additive weight loss. More recently, study results have been announced, but not yet published, showing that a combination of two pharmaceutical agents will achieve a further additive effect.

## G&H What is your philosophy in regard to motivating patient behavior in order to achieve weight loss?

**LA** We approach weight loss by first looking at patients' eating habits physiologically. In the 1950s, physicians believed that ulcers were stress-induced and that the behavioral component to certain gastrointestinal problems was very strong. As we've learned more about physiology, we know that bacteria, gastric acid, and other factors can cause ulcers. What we are learning about obesity is remarkably similar. There are physiologic causes that, if managed properly, can make behavioral issues less prominent. Patients' metabolism and appetite can be related to the kinds of foods they eat and this can be as important a factor in their weight gain as the amount of food they eat. This leads to the idea that food has an effect on both appetite and metabolism that is similar to the effect of medication.

## G&H Are there data that support these ideas?

**LA** One recent paper discussed a study in adolescents, showing that a low glycemic diet with minimal sugar and starch increases metabolic rate. These researchers studied two groups, both of whom lost 10% of their body mass. What they found was that the group on the low glycemic diet could consume more calories than the group on the higher glycemic diet while achieving the same weight loss.

An additional illustration of the physiologic component of eating habits comes from the assumption that if people are overfed, they will be less hungry. Actually, another recently published paper studied an overfed group of individuals and found that in some people, additional food actually increases appetite. These people have a physiologic difference that predisposes them to obesity and finding and controlling this difference may have as great an impact on their weight as diet and exercise.

## G&H What are the nutritional issues of concern in patients undergoing surgical procedures to control obesity, such as gastric bypass or banding?

**LA** The main concern in these patients is the need to consume sufficient protein and lowered amounts of car-

bohydrate. After a gastric bypass or banding procedure, some patients find that certain carbohydrates are easier to ingest than proteins because they are "meltable" and therefore pass more easily through the stoma. These changes in dietary composition can have an effect on the amount of weight lost. It is important to encourage patients to keep a food record and focus on consuming enough protein and less sugar and starch in order for their procedure to be maximally successful in the long term.

Postsurgery, gastric bypass patients can also have difficulty absorbing vitamins, most commonly vitamin D, and in turn, calcium, which can present a host of problems. In the majority of cases, this problem can be corrected with supplements. However, it is an area that requires monitoring and regular follow-up.

## G&H Are there age- and/or gender-specific concerns in the treatment of obese patients?

**LA** The approach to treating obesity in men and women does not differ significantly. However, it should be noted that although women are far more likely to seek treatment for obesity, it is an issue of greater concern in men, due to the greater medical risks associated with the abdominal distribution of fat more typically seen in men.

In children, we are much less likely to use medication as part of the treatment and we involve the entire family in patient education and behavior modification, not just the obese child. This is not a standard practice in the treatment of adults.

## Suggested Reading

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