

Welcome to the weight management myths presentation. The purpose of this presentation is to provide the health and fitness professional with a brief overview on weight management myths and provide scientifically valid information debunking these common myths.

After completing this section, the health and fitness professional will be able to do the following: understand how weight management myths are developed, be familiar with common fallacies associated with weight management, and educate current and prospective weight loss clients on the truth of common weight management myths.

The world of nutrition is full of controversy, both disagreements within the scientific community as well as discrepancies between consumer media reports. Nowhere is this dissension more evident than in the discussion of dieting. With each week there seems to be a new and improved diet to follow to lose unwanted fat, inches, or pounds. The media reports that a food is a miracle cure one week, and then that it is almost criminal the next week.

A large part of this confusion comes from the relationship between science and the media who report on it. Many of these apparent myths can be explained by how popular media interprets and reports on a particular study.

Let's review some of these common myths. We'll start with high protein, low carbohydrate diets. This is one of the more widely debated diets in the scientific as well as the consumer literature. Foods high in digestible carbohydrates are limited or replaced with foods containing a higher percentage of protein and fats, and/or other foods lower in carbohydrates. Versions of the low carbohydrate diets, such as the Zone Diet, the Protein Power Lifepan, the Go Lower Diet, and the South Beach Diet remain popular today.

Scientists suggest that several mechanisms may be responsible for the weight loss seen with low carbohydrate diets. However, one common denominator to all of these diets is that they are low in calories. Thus, if one is ingesting a lower amount of calories than they were prior to starting the diet, a caloric deficit is created and weight loss ensues. So weight loss that comes with these diets are not due to the absence or reduction of a particular macronutrient, in this case carbohydrates, but rather the lower number of calories consumed when following these diets.

Myth number two, carbohydrate, insulin, and weight gain. Related to the high protein and/or low carbohydrate diet phenomenon is the recent discussion of insulin and weight gain with the premise

being that carbohydrate stimulates insulin release and insulin stores fat. Therefore eating carbohydrates makes you fat.

Although insulin does store glycogen as fat, that stored fat will be later used as an energy source, assuming the amount of calories being ingested is less than what is being expended.

So where does that leave the health and fitness professional when faced with a question like does insulin, make me fat?

Number one, the body needs carbohydrates, fats, and proteins to function optimally. And the focus should be on selecting the best choices from each group, not eliminating or severely limiting any single one. Number two, as mentioned before, ingesting more calories than expended makes a person fat, not insulin or carbohydrates.

Myth number three, the more calories you cut, the more weight you'll lose. As previously mentioned in the physiology of weight loss module of this course, an energy deficit must be created for weight loss to occur. So yes, the more calories you cut, the more you will lose. However, health and fitness professionals should caution their clients against going too low. Very low calorie diets should be followed only under the supervision of a medical professional to promote rapid weight loss in patients who are morbidly obese.

Cutting calories too low comes with a myriad of risk factors. Thus, the health and fitness professional should discourage overly restrictive programs advocating less than 1,000 to 1,200 calories per day and support safe, maintainable weight loss by means of more healthful eating, smaller portions, and increased activity.

Myth number four, certain foods, like grapefruit, celery, or cabbage soup, can burn fat and make you lose weight. These programs, often called negative calorie diets, suggest that somehow certain foods create a negative energy balance. Negative calorie diets are often very low calorie diets in disguise that produce weight loss because of their severe energy restriction, not nutrient biochemistry. Additionally, most of these diets are limited to a small number of foods and do not provide adequate macro or micronutrients.

Myth number five, low fat or fat free means no calories. While this misunderstanding was more dominant during the low fat 1980s and early 1990s, the premise has again taken hold with the low carbohydrate and/or no carbohydrate craze. The two share the same fallacy that if a product is fat free or low carbohydrate, it is somehow calorie reduced or even calorie free.

The inverse is often true, as fat free and low carbohydrate products often contain large amounts of sugar, protein, and fat respectively.

Recall that any nutrient eaten in excess of the body's needs, thus resulting in caloric surplus, will be converted and stored as fat. Clients should be encouraged to follow healthy eating guidelines rather than declare diabolic in a single nutrient category in hopes of weight loss. However, if these foods help reduce total calorie intake, weight loss may occur provided that the total daily intake is less than calories expended.

Myth number six, skipping meals is a good way to lose weight. Skipping meals or fasting all together is, ultimately, counterproductive. The body needs fuel to function and skipped meals or days of fasting do not support long term weight loss. In fact, studies show that people who skip breakfast and eat fewer times during the day tend to be heavier than people who eat a healthy breakfast and eat four or five times a day.

It is believed that people who skip meals tend to feel hungrier later on and eat more than they normally would and that eating many small meals throughout the day helps many people control their appetites, making them less likely to overeat at any one meal.

Myth number seven, eating at night causes weight gain. There are both biological and behavior aspects to this myth. There is no magical time when the body is better or worse at storing fat. Our bodies function on a continuum. And if over time and energy surplus prevails, weight gain will occur.

However, if the person has not eaten all day long and heads into the evening hours starving, they are very likely to consume more than they need. Likewise, if a person is mindlessly snacking all evening, there there's a strong probability that excess calories will be consumed.

Studies show that weight gain occurs not because of the foods were eaten at night, but because of over consumption of calories beyond one's needs occurred.

Myth number eight, being a vegetarian is an excellent way to lose weight. While plant derived diets can be exceptionally health promoting and performance enhancing, they will not, on their own, produce weight loss without maintaining a calorie deficit as previously discussed. Bottom line, if a vegetarian diet provides a calorie deficit, weight loss will occur.

Myth number nine, you can't lose weight or be healthy if you eat red meat. Eating lean meat in small amounts can be a part of a healthy weight loss plan. Red meat, pork, chicken, and fish contain some

cholesterol and saturated fat, the least healthy kind of fat. But they also contain essential nutrients, like protein, iron, and zinc. To incorporate meats into a weight loss diet clients should be advised to choose cuts of meat that are lower in fat and trim all visible fat.

Also, educate clients about portion size. One serving of meat is two to three ounces cooked, which is about the size of a deck of cards. The amount of meat individuals choose to eat should be based on their total calorie allotment for weight loss.

Myth number 10, if you exercise you can eat what you want. This myth is an extension of the input versus output relationship of energy balance. It is true that the more you exercise, the greater the expenditure which can positively impact the energy balance equation in favor of weight loss. But it is not true if the input side remains higher than the output side.

Experts recommend a combination of prudent eating with manageable exercise to produce lasting weight loss success. This discussion might also present an excellent opportunity for health and fitness professionals to discuss nutrient density and the impact of nutrient choices on exercise performance.

In summary, health and fitness professionals are in an excellent position to demystify the world of nutrition and exercise for weight loss. By using academic resources and authoritative recommendations from credentialed sources, health and fitness professionals can educate their clients and empower them to make healthful behavior changes. This presentation addressed some of the more common myths heard in exercise environments, but tomorrow will bring new myths and fads.

It is the responsibility of the health and fitness professional to read current research articles and investigate to dispel any new falsehoods as they develop and help digest the science for their clients.