

Medical Nutrition Therapy for Weight Loss

Dr. Rashmi Gupta

Lecturer

Department Of G.P.E. M.

G.D. govt. College for Women, Alwar(Raj.) 301001

Abstract

An alarming rise in overweight and obesity is occurring worldwide. Obesity is more common than cardiovascular disease, diabetes, and cancer combined and may be a leading cause of these three disorders and numerous other morbid states. Despite some advances in research into genetic, metabolic, behavioral, psychological, and environmental factors, children, adolescents, and adults are continuing to become overweight and obese in increasing numbers. Especially impressive is the progression of overweight and obesity in children and adolescents. The diets of the developing world are shifting rapidly, particularly with respect to fat, caloric sweeteners (from refined carbohydrates), and animal-source foods. This changing dietary composition promotes excess caloric intake. Diets high in fats and sugars are conducive to weight gain because they increase the energy density in foods, especially in individuals with limited physical activity. Medical nutrition therapy is a type of treatment for people who are overweight. A number of dietary patterns, both macronutrient, and food-based, can lead to weight loss. A key strategy for weight management that can be applied across dietary patterns is to reduce energy density. The flexibility of energy density gives patients options to tailor and personalize their dietary patterns to reduce energy intake for sustainable weight loss.

I. Introduction

The recent surge in rates of obesity is driven by eating behaviors and food choices that promote excessive energy intake. Current recommendations for weight management emphasize the importance of healthy eating patterns that include a variety of nutrient-dense foods, limiting portions of energy-dense foods, and reducing overall energy density. A number of dietary patterns that reduce energy intake in relation to energy expenditure lead to similar weight loss. A unifying factor for weight loss across dietary patterns is energy density. Reducing a diet's energy density allows individuals to consume satisfying amounts of food for fewer calories. Strategies that lower energy density is flexible and can be applied to multiple dietary patterns to match differences in energy needs, taste preferences, eating behaviors, food accessibility, and cultural backgrounds.

Obesity specifically refers to an excess amount of body fat sufficient to harm health. Obesity is most commonly assessed by a single measure, the body mass index (BMI). Individuals with a BMI of 25–29.9 kg are considered overweight, while those with a BMI of 30 and above are considered obese (Table 25-1). Obesity is classified as moderate (class I), severe (class II), or extreme (class III) according to BMI (30–34.9, 35–39.9, and >40 kg, respectively). It is associated with a high risk of cardiovascular disease and type 2 diabetes which increases gradually as BMI increases.

If anybody weighs too much, it's important that he lose weight. This is even more important if he is obese. Weighing too many increases the chance of many health problems. These include:

- ★ Diabetes
- ★ Arthritis
- ★ High blood pressure
- ★ Heart disease
- ★ Stroke
- ★ Sleep apnea
- ★ Liver disease
- ★ Infertility
- ★ Lung diseases
- ★ Certain cancers

Mental health problems

Medical nutrition therapy can also help people with other health issues. Popular dietary approaches for weight loss have generated widespread interest and considerable debate. While energy balance remains the cornerstone of weight control (i.e., calories still count), new diets and books promising weight loss by limiting

certain foods or macronutrients rather than energy are constantly emerging and hitting the best-seller list. Although their names and approaches may change over time, their basic premise has not. They market “success” as a large weight loss over a short period with little effort. Given the allure of a quick fix, overweight and obese individuals are often in search of the next “best” diet. The public's willingness to try diverse and, in some cases, poorly researched dietary approaches underscores their long-standing struggle to control their weight and the need for more effective strategies to help create an energy deficit. In order to develop more effective strategies, it is important to understand the efficacy, health effects, and long-term sustainability of current dietary approaches to weight control.

The diet pattern should be followed by an obese person:

1. Low-fat diet

foods to reduce saturated and trans fat, cholesterol, sodium, added sugar, refined grains, alcohol, and “foods to increase fruits, vegetables, whole grains, low-fat dairy and protein foods, oils in order to maximize the nutrient content and health-promoting potential of the diet.

- ★ Fruits and vegetables
- ★ All fresh and canned fruit no sugar added or no salt or low sodium
- ★ Grains
- ★ Whole grain bread, cereals, brown rice, soft corn or wheat, oatmeal
- ★ Low-fat or fat-free dairy products
- ★ Nonfat or 1% milk or milk alternative
- ★ Nonfat or low-fat yogurt, cheese, and cottage cheese
- ★ Fish, meat, chicken, and other protein
- ★ Lean meats and proteins, including chicken
- ★ Lean cuts of pork, and beef
- ★ Baked or boiled fish
- ★ Egg white or egg substitutes
- ★ Lentils, beans, and peas
- ★ Fats and oils, in moderation
- ★ Unsaturated vegetable oils, including canola, olive, soybean, and sunflower

2. Very low-fat or calorie diet

Diets that provide 10%-20% fat are defined as very low-fat. They are primarily plant-based diets (e.g., fruits, vegetables, whole grains, beans, and soy), with limited amounts of reduced-fat dairy, eggs, lean meats, and fish. Unlike LF plans which incorporate all foods, the very low-fat diets strongly discourage the consumption of foods containing high amounts of refined carbohydrates.

A very low-calorie diet (VLCD) is a rapid weight-loss program in which calories are severely restricted, often to 800 calories or fewer. A calorie level this low may be considered semistarvation or a crash diet. This diet is dangerous unless you are under medical supervision for reasons that necessitate weight loss, such as surgery. It was developed in the 1970s for patients whose body mass index (BMI) is 30 or higher—people who need to lose weight quickly because of the health consequences of obesity.

These diets are often used to help obese patients achieve significant, short-term weight loss as part of a comprehensive weight-loss program. Because food intake is so limited and calories are restricted to about 800 a day, very low-calorie diets should only be followed in certain cases and must be supervised by a doctor.

For example, VLC diets are not normally used for patients with a BMI between 27 and 30 unless they have medical conditions related to their weight, such as diabetes or high blood pressure. These diets are not usually prescribed for children or teens.

3. Moderate-fat diets

Given that LF diets can contain up to 35% fat, moderate fat (MF) diets are generally those that contain between 35%-45% fat. Many people equate MF diets with Mediterranean diets but the fat content of Mediterranean diets can vary considerably. Some have reported fat contents as high as 47% while others have found them to be as low as 25% fat therefore, although some Mediterranean diets can be considered moderate in fat, it should not be assumed that they all are.

To start, the Mediterranean diet is a plant-forward diet, which means it is high in plant-based foods. This does not mean you have to become vegetarian or go vegan to eat the Mediterranean way, it simply means you want to get more plant-based foods in your diet - think rainbow eating! Other important plant-based foods to eat on the Mediterranean diet include:

- ★ Whole grains
- ★ Nuts and seeds

- ★ Beans and legumes
- ★ Herbs and spices
- ★ Quality Extra-virgin olive oil
- ★ Eat some fish and lean proteins, moderately

Once you get a solid foundation from eating more plant-based foods, fill in the gaps by consuming foods that provide good lean proteins, healthy fats, complex carbohydrates, and fiber. Eat the following in moderate amounts:

Fatty fish (2 times per week)

- ★ Lean poultry
- ★ Some dairy
- ★ Eggs
- ★ Cheese (avoid highly processed cheeses, however)
- ★ Avoid processed foods

One of the things that happen more naturally when eating the Mediterranean diet is that we end up eliminating, or at least limiting harmful processed foods. By getting more of the good stuff-- plants, lean proteins, and good fats-- we naturally reduce our intake of unhealthy processed foods that are high in sodium, refined sugar, and saturated fat - dietary patterns that when consumed can lead to weight gain, diabetes, high cholesterol, and heart problems.

The Mediterranean Diet includes many different nutrients that work together to help your body. There's no single food or ingredient responsible for the Mediterranean Diet's benefits. Instead, the diet is good for you because of the combination of nutrients it provides.

4. High protein diet

There is no standard definition of a "high-protein diet;" however, intakes greater than 25% total energy or 1.6g/kg per day of body weight can be considered high. The Zone diet (30% protein, 40% carbohydrate, and 30% fat) is an example of a high-protein (HP) diet. The most prominent difference between HP diets such as the Zone and a low-carbohydrate diet like the Atkins New Diet Revolution is that an HP diet is typically low in fat. However, high-protein diets have also been associated with several risks that are important to be aware of and understand. Nutritional experts don't advocate consumption exceeding the recommended daily amount.

Here are 10 terrific sources of lean protein:

1. Fish
2. Seafood
3. Skinless, white-meat poultry
4. Lean beef
5. Skim or low-fat milk
6. Skim or low-fat yogurt
7. Fat-free or low-fat cheese
8. Eggs
9. Lean pork (tenderloin)
10. Beans

Vegetable proteins don't provide adequate amounts of every essential amino acid but can be combined with other plant sources to make a complete protein. Beans, legumes, grains, soy, nuts, and seeds are examples of high-protein plant foods.

5. low-carbohydrate (LC) diet

is one of the most recognized approaches to weight loss. Many versions of the LC diet exist, each with a unique interpretation of optimal LC eating. Unlike LF diets, the FDA has not established a clear definition for "low" carbohydrates. However, LC diets often consist of limited amounts of carbohydrates (20-50 grams/day or about 10% of calories from carbohydrates), gradually increasing over time, and relatively high amounts of fat (approximately 60% fat), which differentiates LC diets from HP diets. LC approaches encourage the consumption of controlled amounts of nutrient-dense carbohydrate-containing foods and eliminate the intake of refined carbohydrates. Although consumption of foods that do not contain carbohydrates (e.g., meats, poultry, fish, butter, oil) is not restricted, quality rather than quantity is emphasized. Low carbohydrate diet.

II. Conclusion

Obesity caused by a positive energy balance is a serious health burden. Studies have shown that obesity is the major risk factor for many diseases like type 2 diabetes mellitus, coronary heart disease, and various types of cancer. Therefore, the prevention and treatment of increased body weight are key. Different evidence-based treatment approaches considering weight history, body mass index (BMI) category, and co-morbidities are available: lifestyle intervention, formula diet, drugs, and bariatric surgery. For all treatment approaches, behavior change techniques, reduction in energy intake, and increasing energy expenditure are required. Self-monitoring of diet and physical activity provides an effective behavior change technique for weight management. Digital tools increase engagement rates for self-monitoring and have the potential to improve weight management. The objective of this narrative review is to summarize currently available treatment approaches for obesity, to provide a selective overview of nutrition trends, and to give a scientific viewpoint on various nutrition concepts for weight loss.

References:

- [1]. Churuangasuk C., Kherouf M., Combet E., Lean M. Low-carbohydrate diets for overweight and obesity: A systematic review of the systematic reviews. *Obes. Rev.* 2018;19:1700–1718.
- [2]. Johnston B.C., Kanters S., Bandayrel K., Wu P., Naji F., Siemieniuk R.A., Ball G.D.C., Busse J.W., Thorlund K., Guyatt G., et al. Comparison of weight loss among named diet programs in overweight and obese adults: A meta-analysis. *JAMA.* 2014;312:923–933. doi: 10.1001/jama.2014.10397.
- [3]. Makris AP, Foster GD. Dietary Approaches to the Treatment of Obesity. In: Wadden TA, Stunkard AJ, Berkowitz RJ, editors. *Psychiatric Clinics of North America.* Vol. 28. 2005. pp. 117–39.
- [4]. Riebe D, Blissmer B, Greene G, Caldwell M, Ruggiero L, Stillwell KM, Nigg CR. Long-term maintenance of exercise and healthy eating behaviors in overweight adults. *Prev Med.* 2005;40:769–78