

Low-Calorie Step I Diet

Nutrient

Recommended Intake

Calories

500 to 1,000 kcal/day reduction

Total Fat

30 percent or less of total calories

SFA

8 to 10 percent of total calories

MUFA

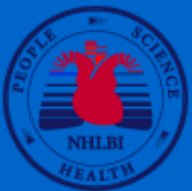
Up to 15 percent of total calories

PUFA

Up to 10 percent of total calories

Cholesterol

< 300 mg/day



Low-Calorie Step I Diet (continued)

Nutrient

Recommended Intake

Protein

~ 15 percent of total calories

Carbohydrate

55 percent or more of total calories

Sodium Chloride

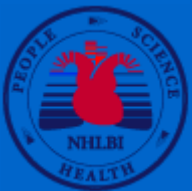
No more than 100 mmol/day (~ 2.4 g of sodium or ~ 6 g of sodium chloride)

Calcium

1,000 to 1,500 mg

Fiber

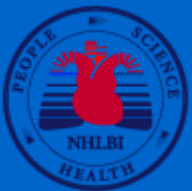
20 to 30 g



Low-Calorie Step I Diet (continued)

Calories

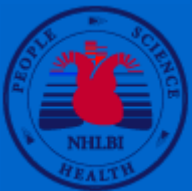
- A reduction in calories of 500 to 1,000 kcal/day will help achieve a weight loss of 1 to 2 lbs/week.
- Alcohol provides unneeded calories and displaces nutritious foods. The impact of alcohol calories on a person's overall calorie intake needs to be assessed and appropriately controlled.



Low-Calorie Step I Diet (continued)

Total Fat

- Fat-modified foods may provide a helpful strategy for lowering total fat intake, but are effective only if
 - Low in calories
 - No compensation of calories from other foods.

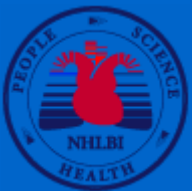


Low-Calorie Step I Diet (continued)

Saturated Fatty Acids and Cholesterol

Patients with high blood cholesterol levels

- May need to use the Step II diet to achieve further reductions in LDL-cholesterol levels;
- In the Step II diet, reduce saturated fats to less than 7 percent of total calories and cholesterol levels to less than 200 mg/day.
- All other nutrients are the same as in Step I.



Low-Calorie Step I Diet (continued)

Protein

Protein should be derived from

- Plant sources
- Lean sources of animal protein



Low-Calorie Step I Diet (continued)

Carbohydrate and Fiber

Complex carbohydrates from different vegetables, fruits, and whole grains are good sources of vitamins, minerals, and fiber.

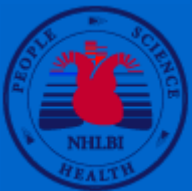
- A diet high in all types of fiber may aid in weight management by promoting satiety at lower levels of calorie and fat intake.
- Some authorities recommend 20 to 30 grams of fiber daily, with an upper limit of 35 grams.



Low-Calorie Step I Diet (continued)

Calcium

- During weight loss, attention should be given to maintaining an adequate intake of vitamins and minerals.
- Maintenance of the recommended calcium intakes of 1,000 to 1,500 mg/day is especially important for women who may be at risk of osteoporosis.



Low-Calorie Step I Diet	
<u>Nutrient</u>	<u>Recommended Intake</u>
Calories	500 to 1,000 kcal/day reduction
Total Fat	30 percent or less of total calories
SFA	8 to 10 percent of total calories
MUFA	Up to 15 percent of total calories
PUFA	Up to 10 percent of total calories
Cholesterol	< 300 mg/day

The LCD recommended in the guidelines for weight loss has a nutrient composition that also will help decrease other risk factors, notably high serum cholesterol and hypertension. The **Step I** diet recommended by the National Cholesterol Education Program provides the appropriate nutrient composition in terms of fats.

- A reduction in calories of 500 to 1,000 kcal/day will help achieve a weight loss of 1 to 2 lbs/week.
- Total fat should be no more than 30 percent of total calories; saturated fat should provide 8 to 10 percent of total calories, and dietary cholesterol should be < 300 mg/day.

Fat-modified foods may provide a helpful strategy for lowering total fat intake, but they are effective only if they are low in calories and there is no compensation of calories from other foods. Patients with high blood cholesterol levels may need to use the **Step II** diet to achieve further reductions in LDL-cholesterol level. In the Step II diet, saturated fat should be reduced to less than 7 percent of total calories and cholesterol levels to less than 200 mg/day. All other nutrients should be the same as in Step I.

Low-Calorie Step I Diet (continued)

<u>Nutrient</u>	<u>Recommended Intake</u>
Protein	~ 15 percent of total calories
Carbohydrate	55 percent or more of total calories
Sodium Chloride	No more than 100 mmol/day (~ 2.4 g of sodium or ~ 6 g of sodium chloride)
Calcium	1,000 to 1,500 mg
Fiber	20 to 30 g



Protein should be no more than 15 percent of total calories and should be derived from plant sources and lean sources of animal protein.

Dietary carbohydrate should be approximately 55 percent or more of total calories and should be rich in complex carbohydrates from different vegetables, fruits, and whole grains—all good sources of vitamins, minerals, and fiber.

Sodium chloride should be no more than 100 mmol/day (~ 2.4 g of sodium or ~ 6 g of sodium chloride).

During weight loss, attention should be given to maintaining an adequate intake of *vitamins and minerals*, particularly *calcium*. Maintenance of the recommended calcium intake of 1,000 to 1,500 mg/day is especially important for women who may be at risk of osteoporosis.

Some authorities recommend 20 to 30 grams/day of *dietary fiber*, with an upper limit of 35 grams. A diet rich in soluble fiber, including oat bran, legumes, barley, and most fruits and vegetables, may be effective in reducing blood cholesterol levels. A diet high in all types of fiber may also aid in weight management by promoting satiety at lower calorie and fat levels.

Low-Calorie Step I Diet (continued)

Calories

- A reduction in calories of 500 to 1,000 kcal/day will help achieve a weight loss of 1 to 2 lbs/week.
- Alcohol provides unneeded calories and displaces nutritious foods. The impact of alcohol calories on a person's overall calorie intake needs to be assessed and appropriately controlled.



Calories

A slightly modified low-calorie Step I diet is advocated for weight loss since the nutrient composition of the diet can also assist those who need to cut back on saturated fat and cholesterol to help lower high blood-cholesterol levels.

In terms of calorie reduction, we know that one pound equals 3,500 calories. By reducing daily calorie intake by 500 to 1,000 calories, it is reasonable to expect a weight loss of 1 to 2 pounds/week.

Alcohol (7 kcal/g) is almost twice as calorie dense as carbohydrates and protein (4 kcal/g). Alcohol provides a lot of calories and offers no other nutritional benefit. The impact of alcohol calories on a person's overall calorie intake needs to be assessed and appropriately controlled.

Low-Calorie Step I Diet (continued)

Total Fat

- Fat-modified foods may provide a helpful strategy for lowering total fat intake, but are effective only if
 - Low in calories
 - No compensation of calories from other foods.



Total Fat

Fat-modified foods can be a great help to those who are trying to lose weight, but only if the low-fat food is also low in calories and the lost calories are not compensated for by eating larger quantities of these low-fat foods or other foods. Reducing fat can be an important way to save calories, but many low-fat products in the store have the same number of calories as the regular variety. This is why it is important to read the food label to compare fat as well as calories.

Low-Calorie Step I Diet (continued)

Saturated Fatty Acids and Cholesterol

Patients with high blood cholesterol levels

- May need to use the Step II diet to achieve further reductions in LDL-cholesterol levels;
- In the Step II diet, reduce saturated fats to less than 7 percent of total calories and cholesterol levels to less than 200 mg/day.
- All other nutrients are the same as in Step I.



Saturated Fatty Acids and Cholesterol

A patient with high blood-cholesterol levels may need to further restrict saturated fat and cholesterol on the Step II Diet if their blood cholesterol does not improve while on the Step I Diet. The Step II Diet reduces saturated fat to less than 7 percent of total calories, and cholesterol intake should be less than 200 mg/day.

Low-Calorie Step I Diet (continued)

Protein

Protein should be derived from

- Plant sources
- Lean sources of animal protein



Protein

Protein should be derived from lean sources, including plants and lean animal protein.

Lean plant proteins include dry peas, beans, legumes, and soy protein (tofu).

Lean animal protein includes lean cuts of meat, poultry, seafood, and lowfat dairy (milk, yogurt, cheese, and cottage cheese).

Low-Calorie Step I Diet (continued)

Carbohydrate and Fiber

Complex carbohydrates from different vegetables, fruits, and whole grains are good sources of vitamins, minerals, and fiber.

- A diet high in all types of fiber may aid in weight management by promoting satiety at lower levels of calorie and fat intake.
- Some authorities recommend 20 to 30 grams of fiber daily, with an upper limit of 35 grams.



Carbohydrate and Fiber

Complex carbohydrates from different vegetables, fruits, and whole grains are good sources of vitamins, minerals, and fiber.

A diet high in all types of fiber may aid in weight management by promoting satiety at lower levels of calorie and fat intake.

A diet rich in soluble fiber, including oat bran, legumes, barley, and most fruits and vegetables, may be effective in reducing blood-cholesterol levels.

Some authorities recommend 20 to 30 grams of fiber daily, with an upper limit of 35 grams.

Low-Calorie Step I Diet (continued)

Calcium

- During weight loss, attention should be given to maintaining an adequate intake of vitamins and minerals.
- Maintenance of the recommended calcium intakes of 1,000 to 1,500 mg/day is especially important for women who may be at risk of osteoporosis.



Vitamins and Minerals

When calorie consumption is limited, care should be given to maintain adequate intake of vitamins and minerals.

Women at risk for osteoporosis should consume 1,000 to 1,500 mg/day of calcium.