



# weight management

More than 130 million American adults age 20 and older are overweight. This country is obsessed with dieting and weight loss pills and many are willing to try anything to be thin.

Some of the most popular diets today are those that are high in protein and low in carbohydrates. Most health organizations promote the Food Guide Pyramid or similar recommendations, which are higher in carbohydrates and lower in protein. So which is best?

There's no question to most that a high fat diet can increase the risk of significant health problems: obesity, heart disease, high blood pressure, some cancers, and more! However, the debate going on today, regarding nutrition, doesn't always have such clear-cut statistics.

The popularity of high protein diets seems to keep rising even as many health professionals warn against the dangers. Now, a few physicians even recommend it for very obese people, as well as some with very high cholesterol or triglyceride levels. The end result for many people is confusion.

The following article entitled, "High-Protein, Low-Carb Diets – Are they right for you?" is from the July 2000 issue of the Mayo Clinic Health Letter and summarizes key points you should know before jumping on the protein bandwagon.

# High-Protein, Low-Carb Diets

## Are They Right for You?

You've been on a low-fat diet for months with no luck. But your friend has shed 15 pounds on a high-protein, low-carbohydrate diet. She feasts on eggs, cheese and meat, and the pounds are flying off!

Should you give her diet a try? How can you lose weight eating all those "heavy" foods? High-protein, low-carbohydrate diets may help you lose some weight quickly. That's because they're low in calories. But these diets aren't necessarily the healthiest approach to losing weight and keeping it off.

## Carbs vs. Calories

There are several high-protein, low-carbohydrate diet books on the market. Examples include the Zone diet, the Atkins diet, the Carbohydrate Addict's Diet, Sugar Busters and Protein Power.

They're all variations on the same theme – to lose weight, you cut back on foods high in carbohydrates (such as fruit and fruit juices, potatoes, breads, cereals, pasta, rich, starchy vegetables, sweets, soft drinks) and eat mainly protein- and fat-rich foods (meat, fish, eggs, milk and nuts).

The Atkins diet, for example, recommends limiting carbohydrate intake to less than about 50 grams a day. That's roughly the amount in one bagel and only about 25 percent or less of what adults should consume each day.

Why the restriction on carbohydrates? Authors and proponents of low-carbohydrate diets believe that eating carbohydrates

increases levels of the hormone insulin. Higher insulin levels, they contend, cause more calories to be stored as fat, promoting weight gain. Therefore, if you cut back on carbohydrates, your insulin levels will drop, and you'll lose weight. In addition, they claim that higher insulin levels stimulate appetite.

Most diet and nutrition experts challenge these theories. They say that carbohydrates alone aren't to blame for weight gain. Weight gain results from consuming too many calories – from any source – while burning too few. In addition, scientific research has not confirmed that insulin stimulates appetite.

That said, it is true that eating carbohydrates (and fat and protein) in moderation can aid in losing weight. The key is "moderation." Some low-fat dieters mistakenly load up on carbohydrates – fat-free cookies, sugary sodas and lots of pasta. These foods are low in fat, but not necessarily low in calories. And when it comes to weight loss, calories matter (despite what many of these diet books say).

## Do These Diets Work?

Some people do lose weight on these diets. Why? First and foremost, these diets are extremely low in calories. The Zone diet, for example, allows for about 800 to 1,200 calories a day. The recommended caloric intake for the average adult is at least 1,800 to 2,000 calories a day.

In addition, when you first stop eating carbohydrates, your body reacts by releasing water that's stored with your body's supply of carbohydrates. Some of the weight you're losing is water, not fat.

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These diets also help suppress appetite – but not necessarily in a healthy way. Your body depends on carbohydrates for its daily fuel. When you strictly limit carbohydrates, your body burns fat as its fuel and reacts as though it’s starving. A condition called ketosis (kee-TOE-sis) may result. This can cause a loss of appetite, but it may also stress your kidneys.

Ultimately, though, most weight loss on high-protein diets is temporary. The diets can make eating overly complicated and eventually boring. And once you go off the diets, you tend to regain weight.

## A Menu of Choices

Are these diets good for you? Mayo Clinic experts say “no.” Most low-carbohydrate diets restrict whole grains, fruits and vegetables – foods linked to prevention of cancer and heart disease. Many of these diets also encourage you to eat meat in place of carbohydrates, and studies have conclusively linked diets high in red meat to various diseases.

Some low-carbohydrate diets also encourage you to eat foods, such as cheese, butter and cream, that are high in saturated fat. But diets high in saturated fat can lead to clogged arteries and increased cancer risk.

In addition, there have been no scientific studies published that show that these diets work for most people or are safe.

If you’re considering a low-carbohydrate diet, discuss it with your doctor. People with diabetes, high blood pressure, heart disease or other risk factors for kidney disease should be particularly careful. Kidneys have to work hard to process waste from the break-down of proteins.

If you’re healthy, these diets may not be obviously harmful for a short period, but you may be sacrificing improvements to your long-term health for temporary weight loss.

## The Best Plan

To lose weight and keep it off permanently, you should follow a healthy, low-calorie diet. This plan should emphasize whole grains, fruits and vegetables—carbohydrates that are low in calories and high in nutrients.

Your diet should emphasize the right kinds of proteins, such as nuts, soy and beans, lean white meats, such as fish, and reduced portions of red meat. It should be low in saturated fat and instead contain monounsaturated fat (the “good” fat), such as olive oil, canola oil and nuts.

In addition, don’t forget to exercise. Studies suggest that if anything helps to keep unwanted pounds from returning, it’s exercise.

Despite hype to the contrary, a diet that’s well balanced in carbohydrates, proteins and fats is healthful for you.

### Choosing the Right Carbohydrate

**There is at least one bit of good advice in some low-carbohydrate diets—the recommendation to decrease your sugar intake.**

**High sugar foods, while high in carbohydrates, are high in calories and low in nutrients. Nutrition experts generally agree that 55 percent to 60 percent of your total daily calories should come from carbohydrates. Make sure yours are the “right” kind. Look for complex carbohydrates that include a good dose of fiber.**

**These include fruits, vegetables, beans, and whole grains.**

# Helpful Tips In Your Quest to Manage Your Weight

**Forget Fad Diets:** One important factor about losing weight is that you don't plan to put the weight back on. Using a "fad diet" to lose weight can produce immediate results, but most likely the weight will be put back on in 6 months to a year. Remember the most important point of proper weight management is "change of lifestyle" – **FOREVER!**

**Don't Skip Meals:** It may seem logical that if you skip breakfast, you reduce the intake of calories; but when you continuously skip meals, your body will counter by slowing your metabolism.

**Keep Away From Weight Scales:** Weighing yourself on a daily basis can be very demoralizing to your program. Because your body's water composition changes throughout the day, weighing yourself daily may give a false indication of your true weight. For example, during exercise you can lose 2-4 pounds through sweating. However, as soon as you drink liquids you may put that weight back on.

**Keep A Diet History:** Keeping a diet history works two ways. First, writing down everything you put in your mouth helps you see good and bad food choices you have made. Second, if you have to write down everything you eat, you may have second thoughts about having that hot fudge sundae.

**Reduce Fat/Eat Complex Carbohydrates:** This allows you to reduce calories, but not the bulk of food you eat.

**Fill Up On Fiber:** First, fiber helps prevent overeating by absorbing water in the stomach and giving a full feeling. Second, that full feeling lasts longer because fiber slows the movement of food through the stomach.

**Eat Slowly:** Slow eating will also help prevent overeating, because there is lag time (about 15 minutes) between the time you consume food and when the brain signals the body that you are full.

**Manage Your Stress:** We tend to eat very poorly when under stress. When stress is heavy, try to focus on proper food choices.

**Exercise, Exercise, Exercise:** Successful weight management is most often accompanied with regular exercise.

**Set Small Goals:** Try not to focus on the final result, instead set small attainable goals and reset those goals once they are reached. Also, reward yourself when you reach each goal you set; but **do not** use food as an award. Good examples of rewards: a new outfit, a new power tool, a small appliance, a night out (movie, concert, ballgame).

# Weight Management Mini-Workshop

## Estimating Daily Calorie Needs Using Weight, Height and Age

Use the appropriate Harris-Benedict formula below to calculate your Basal Metabolic Rate (BMR):

### Adult MALE

$$66 + (6.3 \times \text{weight in lbs.}) + (12.9 \times \text{height in inches}) - (6.8 \times \text{age in years}) = \text{BMR}$$

### Adult FEMALE

$$655 + (4.3 \times \text{weight in lbs.}) + (4.7 \times \text{height in inches}) - (4.7 \times \text{age in years}) = \text{BMR}$$

Next you must account for physical activity. The information for this part of the equation varies, but the International Fitness Association says that you multiply the following physical activity score (that applies to you) to your calculated BMR.

$$\text{Sedentary} = \text{BMR} \times 1.2 \text{ (little or no exercise, desk job)}$$

$$\text{Lightly Active} = \text{BMR} \times 1.38 \text{ (light exercise / 1-3 days/week)}$$

$$\text{Moderately Active} = \text{BMR} \times 1.55 \text{ (moderate exercise / 3-5 days/week)}$$

$$\text{Very Active} = \text{BMR} \times 1.73 \text{ (hard exercise / 6-7 days/week)}$$

$$\text{Extremely Active} = \text{BMR} \times 1.9 \text{ (hard daily exercise or training for marathon, etc.)}$$

Now you can use this number as the appropriate number of calories you can consume in a day, if you're trying to maintain your weight. If you're trying to lose, eat fewer calories (about 250 – 500 a day) and increase physical activity. Trying to gain? You can add healthy calories and weight training.

## Estimating Daily Calorie Needs Using Lean Body Mass

(Must have body fat % value to calculate)

$$\text{BMR (men and women)} = [21.6 \times \text{lean mass in kg (lbs. / 2.2)}] + 370$$

$$\begin{aligned} \text{To figure lean mass in kg: } & \text{Weight (lbs.)} \times \text{body fat \%} = \text{lbs. of fat} \\ & \text{Weight (lbs.)} - \text{lbs. of fat} = \text{lbs. of lean} \\ & \text{Lbs. of lean divided by } 2.2 = \text{lean mass in kg} \end{aligned}$$

Then multiply by activity factor as described above.

## Decrease Fat Intake

Fat supplies more than twice the calories as carbohydrates or proteins and can be stored as body fat more quickly.

$$1 \text{ gram fat} = 9 \text{ calories}$$

By decreasing the amount of fat in the diet, you can automatically reduce caloric intake. Counting your fat grams is one way to decrease the amount of fat in your diet. The current recommended guideline for fat consumption is that 20 - 30% of total calories consumed in a day, come from fat.

How to calculate number of fat grams allowed per day (based on what % of fat you choose).

To calculate 30% of total calories coming from fat:

- 1) Multiply your total calories by 30% (0.30)  
Example: 
$$\begin{array}{r} 1800 \text{ calories} \\ \times .30 \\ \hline 540 \text{ fat calories} \end{array}$$
- 2) Divide fat calories by 9 (1 gram fat = 9 calories)  
$$540 \div 9 = 60 \text{ grams/day}$$

One way of cutting the fat in your diet is to make substitutions for some of your high fat foods. For example:

<b>High Fat</b>	<b>Healthier Substitute</b>
Butter (1 tbs.) = 102 calories	Jelly (1 tbs.) = 49 calories
Mayonnaise (1 tbs.) = 100 calories	Mustard (1 tbs.) = 25 calories
French Fries (1 ounce) = 90 calories	Baked Potato (1 ounce) = 20 calories

## Increase Physical Activity

When physical activity is added to a weight loss program, success rates are greatly increased. Exercise also improves your chances of keeping the weight off once it is reduced.

Exercise benefits a weight management program in several ways:

- 1) Exercise, especially weight training, develops lean muscle tissue. Muscle requires more calories to maintain than fat, so you increase your metabolism.
- 2) All exercise helps; however aerobic exercise burns more fat than anaerobic exercise. Examples of aerobic exercise: walking, jogging, biking, stair climbing, rowing.
- 3) Exercise also makes you feel better about yourself, so you are more likely to stay on your weight loss program.

# How Many Pounds of Fat Do You Need to Lose to Be Healthy?

Learning your body fat composition can be very useful for determining a reasonable weight loss goal.

$$\% \text{ Body Fat} \times \text{Current Weight} = \text{Pounds of Fat you're carrying (P of F)}$$

$$\text{Current Body Weight} - \text{P of F} = \text{Pounds of Lean you're carrying (P of L)}$$

$$\frac{(\text{P of L})}{.80 \text{ for men}^* \text{ (}.75 \text{ for women)}} = \text{Highest optimum body weight (opt body wt) at highest optimum body fat if you keep all your lean tissue}$$

Current Body Weight – Optimum Body Weight = Amount of BODY FAT you need to lose to be at your highest Opt Body Fat to be healthy.

## Example A: Male

Current Body Wt = 225 lbs.

Current Body Fat = 26%

(P of F) = .26 x 225 lbs. = 58.5 lbs. of FAT

(P of L) = 225 lbs. – 58.5 lbs. = 166.5 lbs. of lean

Highest Opt Body Wt =  $\frac{166.5}{.80}$  = 208 lbs.  
at 20% body fat

Body Fat to lose = 225 – 208 = 17 lbs. of FAT

So if *Example A* loses 17 lbs. of FAT only, he will be at 20% Body FAT. This means he will need to keep all his lean tissue (166.5 lbs.) and lose fat only.

**Note:** A woman would divide her pounds of lean (P of L) by .75 not .80

\* Since we like to see men no higher than 20% Body Fat (women 25%) for optimum health, then their corresponding percent lean would be 80% (75% for women).

# Waist Management: Gauging Your Risk



A \$2.99 fabric tape measure may do a better job than a \$65.00 bathroom scale when it comes to determining whether your body-fat level puts you at higher risk for heart disease, diabetes, or breast cancer. Research shows that waist size correlates better with those ailments than body-mass index, a measure of obesity that takes into account both height and weight.

The size of your waist is a surprisingly accurate indicator of your abdominal fat. That's important because many studies have shown that fat stored in the upper body, especially the abdomen, is a strong signal of increased risk of disease. By contrast, people who carry their excess baggage on their hips, bottoms, and thighs are at significantly lower risk.

Lower-body fat accumulates just under the skin, but "abdominal fat is actually inside your abdominal cavity,"

says Marc-Andre Cornier, M.D., assistant professor of medicine at the University of Colorado. "Exactly why it is related to a worsening risk, we're not sure, but we know that it is more metabolically active than fat stored below the waist."

The risk of health problems increases at a waist measurement of 35 inches for women and 40 inches for men, according to The National Heart, Lung, and Blood Institute. But a recent study by the New York Obesity Research Center at Columbia University found that the risk of heart disease and diabetes starts inching up at just under 33 inches for women and 35 inches for men. Those numbers hold true regardless of height.

You can't get rid of abdominal fat through spot exercises; overall weight loss is required. The good news is that as you lose weight, the metabolically active abdominal fat comes off faster than fat from other parts of your body.

## Measure Your Waist

Where your waistband sits may not be the most accurate spot for measuring abdominal girth. Here's one way to do it:

Along the side of your body, locate your lowest rib and the top of your hipbone. Put the tape measure halfway between those two points, which are about 2 to 3 inches apart. If you can't feel your hipbone, place the tape an inch below your bottom rib. Stand up straight, but don't suck in your stomach. Take a deep breath, exhale, and take the measurement at the end of the exhalation.