



jim squires

## 📄 FitPro Nutrition Report

jim, here are your nutritional requirements for an average day for you. This does not include calories that you burn while working out.

Average Daily Calories: 1582

	<u>Grams</u>	<u>Calories</u>
<u>Carbohydrate:</u>	224	897
<u>Protein:</u>	92	368
<u>Fat:</u>	35	<u>316</u>
<b>Total:</b>		1582

## 📄 Guide to Weight Loss

There are plenty of fad diets, gimmicks, and supplements out there, but the fact remains that the only way to lose weight is to burn more calories than you eat. The FitPro nutrition prescription provides an individualized nutritional prescription to help you achieve your goals. The first part of the equation is to know how many calories you burn each day. This number ranges widely for adults, based on age, gender, height, weight, and activity level. Different types of exercise burn different amounts of calories. Doctors and dietitians use formulas to calculate these numbers, but this requires an expensive office visit and consultation. FitPro gives you this information from the privacy of your home and at a fraction of the cost of a professional consultation.

To lose a pound of fat per week, FitPro has calculated that you should limit your daily caloric intake to 1582 calories. This number is based on your metabolic rate and occupational activity level. Calories (kcal) are one way that energy is measured. There are several ways of measuring energy output during exercise. FitPro uses calories because this is also the way the amount of energy in food is measured. If you wish to lose weight, you must create a caloric deficit. Simply stated, this means that you eat fewer calories than you burn. There are 3500 calories in a pound of fat. So to lose a pound of fat, you must burn 3500 more calories than you eat. For weight loss, FitPro calculates a 500-calorie daily deficit, primarily by restricting fats. If you did no exercise other than your occupational activities, and consumed this number of calories per day, your weight should decline by approximately one pound per week (500 calories times 7 days = 3500 calories = one pound of fat). You could create a greater caloric deficit by doing some form of exercise. Of course, you could both decrease calorie intake and increase calorie burning through exercise. However, it is generally a bad idea to create

a deficit of more than 1000 calories per day. The formulas used to calculate metabolic rate (Harris-Benedict equations) are accurate for most individuals. However, some individuals have a slightly higher or lower metabolic rate. If you find that you are not losing weight as expected, try subtracting 200 calories from the Average Daily Calories number. Try to make calorie adjustments primarily through decreasing fat intake.

One of the problems with restricting calories without doing any form of exercise is that the body is capable of changing its metabolic rate. During times of relative starvation, the metabolism can slow, resulting in fewer calories burned at rest. The primary obstacle to losing weight by restricting food intake without exercise is that your metabolic rate will eventually slow down to try to compensate for the decreased energy intake. This is the primary reason that individuals tend to lose weight for the first week or two after starting a diet, but find it difficult to continue this trend without exercising. This is why it is important to do some form of exercise to continue losing weight, especially after the first few weeks. The exercise does not need to be intense. Walking for 20 minutes a day, even if done in two ten-minute walks, is enough to stimulate metabolism and burn additional calories. The Activity Table tells you how many calories you burn per hour at your current weight for a wide range of activities.

Calculating calorie intake can be a challenge. The US Department of Agriculture has available a comprehensive online searchable database of foods at <http://www.nal.usda.gov/fnic/foodcomp/search/>. This resource has calorie and other nutritional information for over 6500 foods. You can also use food labels and sources from restaurant chains to help calculate how many calories you are eating. This may require measuring food amounts for a while until you can accurately estimate what four ounces of corn, for instance, actually looks like. The human body is very efficient. If we eat more calories than we burn, we will store this extra energy in the form of fat. If you are overweight, it is because you have been eating more calories than you burn (a calorie surplus). You need to decide whether you want to try to end this surplus by eating less, exercising more, or a combination. This is a decision that you are best qualified to make. However, do all you can to assure that you do not exceed the recommended amount of fat. Adding exercise stimulates the metabolic rate and allows you to continue losing weight by maintaining a high metabolism despite calorie restriction.

### Carbohydrates

FitPro has calculated that you need 224 grams of carbohydrate daily. Carbohydrates are the primary fuels needed by muscle to allow daily workouts. Upward adjustments in daily calories should be done primarily with carbohydrates. Complex carbohydrates are the preferred form of dietary carbohydrates. Pasta, grains, whole-grain breads, beans, and vegetables are all excellent sources of complex carbohydrates and should be staples in a healthy diet. Complex carbohydrates are long chains of glucose and other sugars, which must be broken down in the digestive tract before they are absorbed into the bloodstream. This causes a slower release of glucose, and a slower rise in insulin. Simple sugars are found in candy, table sugar, syrups, most sports beverages, soft drinks, and other sources. These tend to cause a rapid rise in blood sugar, followed by a rapid rise in insulin. High levels of insulin stimulate fat deposition and can cause hypoglycemia (low blood sugar) in susceptible individuals. Hypoglycemia causes hunger and sometimes headaches, dizziness, and mood

changes. For this reason, eating a sugary snack will frequently be followed by a feeling of hunger within 60-90 minutes as the blood sugar falls rapidly. It is wise to consume simple sugars only in very limited amounts, accompanied by complex carbohydrates. Fruits are also a source of simple sugars, although they contain vital micronutrients and are important components of a healthy diet. Carbohydrates contain only 4 calories per gram, compared with 9 calories per gram of fat. In the first hour after a workout, the muscles are especially "hungry" for carbohydrates and absorb them rapidly from the circulation; this is the best time to replenish the carbohydrates burned during exercise. When carbohydrates are eaten to excess, they are converted to fat and stored, but this is a relatively inefficient process. Calories are required to fuel the conversion process from carbohydrate to fat; fat is stored directly and more efficiently adds to those "trouble spots".

Glycemic index is a measure of how quickly glucose from a food source enters the bloodstream. Foods with a high glycemic index cause a more rapid rise in blood sugar than foods with a lower glycemic index. When blood sugar rises, the body produces insulin, which lowers blood sugar by causing the sugar to enter muscle and liver cells. This is a closely regulated, but not perfect process. It is not uncommon for the rise in insulin to overshoot the rise in blood sugar after a sugary snack, causing the blood sugar level to drop. Low blood sugar levels cause a number of symptoms, including hunger, irritability, lightheadedness or dizziness, and headache. This frequently results in a cycle of repetitive snacking. Glycemic load is another way of looking at the way a specific food affects blood sugar. Glycemic load is a measure that includes how rapidly the sugar rises after a meal AND how much sugar is in the food. For instance, many fruits have high glycemic index but low glycemic load. Compare this with a food such as cake, which has a high glycemic index and a high glycemic load. An excellent, although somewhat technical article from the American Journal of Clinical Nutrition discusses glycemic load in detail and includes a chart listing the glycemic load of several hundred foods. This reference is available at [www.ajcn.org](http://www.ajcn.org). In general, the carbohydrate sources with lower glycemic loads (less than 20) are healthy sources of carbohydrates and should be a part of a healthy, balanced diet.

### Protein

FitPro has calculated that you need 92 grams of protein daily to maintain your muscle mass. The protein requirements are based on your current weight and weight loss goal. This protein recommendation has been calculated based on the latest scientific research. The FitPro nutrition prescription recommends a slightly higher amount of protein than the RDA. Foods high in protein cause satiety, suppressing the appetite longer after a meal than carbohydrates. Additionally, it is important to make sure protein needs are met to avoid losing muscle mass rather than fat when restricting calories. Finally, for long-term success, exercise is important, and evidence suggests that individuals who engage in regular exercise have slightly higher protein requirements than sedentary individuals. No physiologic advantage is gained by exceeding this amount of protein. And despite marketing claims, and no protein supplement has ever been shown to increase metabolism or cause weight loss without the necessary combination of calorie burning and decreased consumption.

Proteins are the "building blocks" that are needed to increase muscle mass. Proteins are made of chains of amino acids. Essential amino acids are amino acids that the

body cannot manufacture itself; therefore, they must be obtained through the diet. Meats are the only truly complete protein sources, containing all of the necessary amounts of essential amino acids from a single food. Soybeans are close, but contain a borderline amount of one of the amino acids. While the single best sources for essential amino acids are meats, vegetarians can meet these protein requirements if they are careful about mixing protein sources. Beans are the best non-animal source of dietary protein. All of the essential amino acids can be obtained in a vegetarian diet with careful balancing of complementary protein sources (beans with grains, milk with grains, vegetables with seeds, etc.). Supplements are another way of obtaining amino acids. However, supplements tend to be more expensive on a gram-per-gram basis than their food source counterparts, and most do not have vitamins, fiber, minerals and other important components of a healthy diet. Many supplements cost more than beef tenderloin. You will find that a balanced, carefully chosen diet will provide high quality protein and will cost less than most protein supplements. Additionally, foods tend to have other micronutrients (Iron, Vitamin B12, etc.) which are typically absent in supplements, making it necessary to purchase even more supplements. No benefit for weight loss, strength gain, or muscle hypertrophy has been consistently demonstrated with excess supplementation of any type of amino acid.

People who exercise regularly have somewhat higher protein needs to support increased muscle metabolism. Your protein recommendation has been calculated based on the latest scientific research. The recommendations are based on an amount of protein that will prevent this excess protein turnover from causing muscle loss. There is no physiologic advantage to exceeding this amount of protein. In fact, high protein diets can promote dehydration and excess protein is either eliminated or converted to fat. There is no efficient way for the body to store proteins, so they must be consumed daily. However, it is not difficult to meet your recommended protein requirements if foods are chosen carefully.

## Fats

FitPro has determined that you need 35 grams of fat daily to meet your energy and fat needs. Fats are overeaten in the typical American diet. Most people exceed the amount of fat recommended by health experts. However, some fat is necessary in the diet, and the amount recommended here is safe and achievable. Because fats contain more than twice the calories of carbohydrates, decreasing the total caloric intake must begin with limiting fat intake. Substituting lower-calorie carbohydrates and proteins allows most people to eat larger portions without increasing body fat. Excess body fat and high-fat diets are both associated with an increase in the risk for heart disease and some types of cancer.

It is important to consider not only the amount of fat in the diet, but the type of fat. Monounsaturated and polyunsaturated fats have important health benefits. In moderation, they can actually improve cholesterol profiles. Good sources for these types of fats include vegetable and fish oils. Monounsaturated fats, such as those found in olive, canola, and peanut oils, tend to improve HDL ("good") cholesterol, and are therefore considered healthier for the heart. Unhealthy fats include saturated and Trans fats. Saturated fats are found in animal sources (meat, milk, butter), coconut, and palm oils. Trans fats are found in margarine, fried foods, and any foods that state "partially hydrogenated vegetable oil" on the label. Saturated and Trans fats cause an

increase in LDL (bad) cholesterol and a decrease in HDL (good) cholesterol.

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The "Activities" list tells you how many calories you burn at your current weight for a variety of different activities. The column labeled kcal/hr shows the number of calories per hour you would burn for each activity. Add the number of calories used during workouts to 1582 to calculate your total calories burned for that day. If you do an activity for 30 minutes, take half of this number; if you do an activity for an hour and a half (1.5 hours), multiply this number by 1.5. Three hundred calories is the minimum workout that will result in an improvement in cardiovascular endurance. Five hundred or more calories are a more reasonable workout to accelerate fat loss or to enhance conditioning. As the intensity (speed) of an activity increases, so will the corresponding heart rate. Higher intensity workouts result in more rapid gains in stamina. High-intensity workouts burn more carbohydrate than low intensity workouts. For this reason, it is important to meet the caloric needs of intense workouts predominantly with carbohydrate. Longer, less intense workouts burn a proportionally greater amount of fat. You would burn approximately the same number of calories walking 3.5 miles in one hour as you would burn running 3 miles in 30 minutes. Walking would burn more fat; running would burn more carbohydrate and result in greater cardiovascular conditioning. Walking is easier if you have not been exercising for longer or have orthopedic problems such as arthritis or other medical conditions. Running allows you to get your workout done more quickly. It is important to tailor your workout regimen to your goals. It is also important to talk with your doctor before beginning any exercise program. This is especially true for people who are over 40 years old or have risk factors for heart disease [smoking, diabetes, high blood pressure, obesity, dyslipidemias (high cholesterol, high triglycerides), sedentary lifestyle, or a family history of heart disease].

Resistance exercise (weight training) is also a good way to help ensure weight loss. Weight training stimulates muscle metabolism for a longer period of time after a workout than aerobic workouts. Additionally, resistance training helps stimulate increased muscle mass, and muscle burns more energy at rest than fat burns. If you do not have experience doing resistance workouts, consider hiring a personal trainer; learning good technique maximizes your strength and muscle mass gains and minimizes your risk for injury. It is important to lift with good technique, both to enhance gains from your workouts, as well as to prevent injury. Do not work the same muscle groups on consecutive days, as recovery days allow muscle protein synthesis to occur, the process by which muscles strengthen and enlarge. Females and pre-pubertal males will not easily gain significant muscle hypertrophy or bulk; it is the combined effects of weight training, nutrition and androgens, the male hormones that cause muscles to gain size. Avoid exogenous (injected or oral) anabolic steroids; they have many serious side effects, most of which are permanent. Baldness, acne, liver disease and tumors, cardiac disease (including heart attack), stroke, muscle rupture and testicular atrophy (shrinkage!) are among these side effects.

Using the right combination of healthy eating and regular exercise is the best way to feel better, look better and live longer. Do this for three months, and you will find you have more energy, less fat, and you will look and feel GREAT!

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Activity table for jim squires

<u>Category</u>	<u>Activity</u>	<u>kcal/hour</u>
Running	Running 5 mph	659
	Running 5.5 mph	710
	Running, Cross Country	756
	Running 6 mph	848
	Running 9 minute mile	890
	Running 8 minute mile	959
	Running 7 mph	982
	Running 8 mph	1,037
	Running 7 minute mile	1,051
	Running 9 mph	1,106
	Running 6 minute mile	1,161
	Running 10 mph	1,291
	Running 5.5 minute mile	1,332
Cycling	Cycling 5-6.5 mph	295
	Cycling 6.5-8 mph	332
	Cycling 8-8.5 mph	383
	Cycling 10 mph	553
	Cycling 12 mph	654
	Cycling 13 mph	719

	Cycling 14 mph	825
	Cycling 15 mph	894
	Cycling 16 mph	968
	Cycling 20 mph	1,148
	Cycling 22 mph	1,392
	Cycling 24 mph	1,788
	Cycling 28 mph	2,890
	Cycling 30 mph	3,627
Swimming		
	Swim, slow	590
	Swimming, crawl, fast	701
Walking		
	Walking 2-3 mph	194
	Walking 3-3.5 mph	369
	Walking 3.5-4 mph	396
	Walking 4-4.5 mph	447
	Walking 5 mph	544
Miscellaneous Fitness Activities		
	Circuit Training, Nautilus	424
	Judo	899
	Light calisthenics	258
	Weight training (heavy)	650
	Weight Training (mod)	419
Miscellaneous Competitive Sports		
	Baseball	309
	Basketball game	636
	Bowling	198

Boxing - sparring	641
Field Hockey	618
Football	604
Golf (carry bag)	392
Golf (cart)	161
Gymnastics	304
Racquetball	820
Soccer	714
Softball	442
Squash	977
Table tennis	313
Tennis, doubles	327
Tennis, singles	502
Volleyball	277
Wrestling	899
Outdoor Activities	
Alpine Skiing (racing)	1,115
Alpine skiing (vigorous)	664
Backpacking	452
Backpacking (heavy)	678
Fishing	281
Fishing (wading)	461
Fly fishing	323
Horse riding (gallop)	631
Horse riding (trot)	507

	Horseback riding	189
	Hunting (big game)	705
	Hunting small game	456
	Nordic skiing (light)	728
	Nordic skiing (vigorous)	788
	Rowing/canoeing 3mph	378
	Rowing/canoeing 4mph	470
	Rowing/canoeing 5 mph	599
	Skating, Ice/roller	387
	Skating (vigorous)	724
	Snow sledding	645
	Small boat sailing	290
	Water Skiing	525
Dance		
	Aerobic Dance, Medium	475
	Ballroom Dancing	235
	Dancing	318
	Dancing (mod/heavy)	774
Household Activities		
	Carpentry, Light	240
	Carpentry	410
	Gardening	401
	Gardening\shoveling	581
	Housecleaning	286
	Power lawn mower	406
	Push lawn mower	516

Raking leaves	249
Scrubbing Floors	498
Snow Shoveling	521
Splitting Wood	415

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