



Nutritional Information and Fat Loss Guide

For employees of Essex County Fire and Rescue Service





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Understanding simple principles of nutrition will help you improve your overall health and wellbeing, increasing your cardiovascular endurance/Vo₂max and put you on the right path to passing your fitness assessment.

This guide is designed to create awareness, provide structure and help incentivise healthy eating habits and to help you reduce body fat.



Benefits of Fat Loss

- More athletic
- Increased Vo2Max
- Reduced risk of injury
- Increased flexibility
- Reduced risk of heart disease
- Reduced risk of diabetes
- Increased life expectancy
- Increased aesthetics/confidence (look and feel better)
- Overall improvement in general health

Passing your fitness test should be one motivating factor to losing body fat, however given the amount of health benefits available, focus on motivating factors that are important to you. Losing weight isn't always an easy path, so finding a personal motivating factor will help you stay disciplined even on days where motivation is low.

What's your reason why?



"I want to enjoy food without feeling guilty".



"I want to feel more confident".



"I want to keep up with my kids".





Principles of Fat Loss Made Simple

Losing fat doesn't need to be a complicated science. Simply put, if you burn more calories than you eat and drink on a regular basis, your body will burn fat stores. If this is consistently repeated, you'll lose fat. It works the other way too: if you consume more calories than you burn on a regular basis, you'll gain fat.

Working out what your daily calorie intake is one of the most important factors in starting your fat loss journey.

Follow this equation to work out a rough starting point of what your daily calorie intake should be:

Take your weight in kilograms (KG) and multiply it by 24 (Male) or 22 (Female). This will give you your basal metabolic rate (BMR) which estimates how many calories your body is burning in an inactive/rest state.

Your next step is to multiply your BMR value by the following number based on how active you are during an average week:

exercise number:

BMR X 1.2 – Mostly inactive

BMR X 1.375- 2/3 light workouts per week and inactive job

BMR X 1.55 - Moderate exercise and slightly active job

BMR X 1.725 - Heavy exercise 6-7 times per week and active job

For example - Step 1: $90\text{kg} \times 24 = 2,160$ Step 2: $2,160 \times 1.375 = 2,970$

Based on this example, if I were to consume 2,970 calories per day, my weight should remain the same.

Step 1: your weight in KG x 24 (Male) or 22 (Female)	= _____ (my BMR number)
Step 2: My BMR number x exercise number	= _____ (daily calories to maintain my weight)



Creating a Calorie Deficit

“How much do I need to restrict calories to lose fat”?

The less calories you eat or burn, the faster you'll lose fat, however this generally isn't sustainable or healthy and can lead to you giving up on your diet. It's better to make smaller, manageable adjustments over time, until you've achieved your desired results. As a general rule, a 500-calorie deficit per day would lead to losing 1lb of body fat per week. This could easily be achieved through restricting 250 calories through your diet and doing 250 calories of exercise.

There are three ways you can manipulate your calorie deficit:

1. Eat fewer calories.
2. Burn more calories during exercise.
3. Non-Exercise Activity Thermogenesis (NEAT) (a fancy way of saying, how active you are during the day)

Your calorie deficit calculations should be personal to your own lifestyle.

Person A – Exercises 5 times per week, has an active job, eats whatever they want.

- Their focus should be tracking calories, portion sizes and reducing their intake.

Person B – Exercises 2 times per week, has an inactive job, eats very small meals.

- Their focus should be increasing daily activity levels and exercise frequency.

Consideration	Score 1 - 10
Exercise	
Calorie Consumption	
General Daily Activity	

Score yourself between 1-10 on each of these factors to determine where your focus should be. You can choose to focus on all three if that's what's needed.



Monitoring Your Progress

Now you've worked out your daily calorie targets, you'll want to be consistent with tracking your progress. As your weight decreases, you'll need to re-calculate your calorie intake based on your new body weight. The best way to do this is to weigh yourself every morning and take the average weight. If you're not seeing progress after a few weeks, you're probably underestimating how many calories you're consuming or overestimating how many calories you're burning. Don't be disheartened if it takes you a while to find where your calorie balance is.

Date	Weight (morning before food/drink)
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Weekly average =	



Macro Nutrients

Macro nutrients are broken down into, protein, carbohydrates and fats.

Here's the calorie values of each macronutrient per gram:

Protein – 4cal per gram

Carbohydrates – 4cal per gram

Fat – 9cal per gram

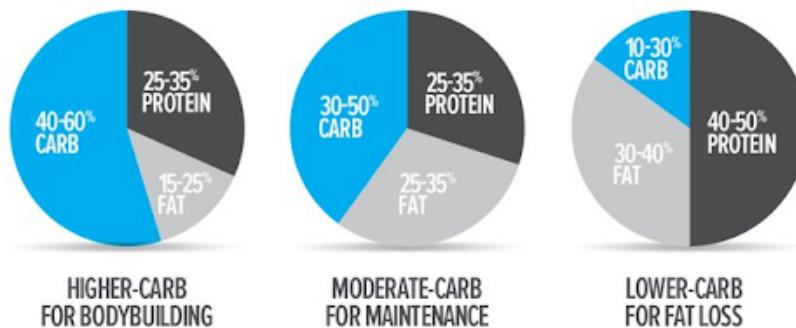


Image from: Life Leisure Blog

"Which one is best"?

This is where a lot of people get put off "diets" and you'll see a lot of popular fads promoting their most recent scientific formulas to weight loss.

Ultimately, when it comes to dividing your daily macronutrients, a lot comes down to personal preference and what you're able to maintain on a daily basis.

As a rule, adults should aim to consume 1-1.2g of protein per Kg of body weight, this will help in maintaining muscle mass. However, there's no harm in eating slightly more protein and lowering your carb/fat intake if that's your preference.



The Eatwell Plate - Forum Health Centre

The healthy eating plate provides a visual guide to the proportions of foods we should aim to eat. Use it as a rough guide and focus on sticking to your daily calorie goals.



Making The Right Food Choices

When in a calorie deficit, you want to make the process as easy as possible, without feeling like you're living in a state of constant hunger. One great way of doing this is eating foods that are high volume but low calorie. This will give you the feeling of being full and will help suppress the desire to snack on poor food choices. Making healthy choices doesn't mean you have to sacrifice your favourite foods.



Vs



Popcorn – 380 cal per 100g

Crisps – 536 cal per 100g

Most people have very regular eating habits and tend to eat similar foods and meals on a weekly basis. Searching for lower calorie alternatives of your favourite foods/meals is an easy way to manage your calorie deficit.

Here are some calorie comparisons of common foods and lower calorie alternatives.

Food	Calories per 100g	Food alternative	Calories per 100g
Ice cream	207	Sorbet	77
Cheese	402	Reduced Fat Cheese	180
Ramen	436	Spaghetti	158
Granola	471	Oats/Bran Flakes	374
Tuna in oil	192	Tuna in water	109
Chorizo sausage	455	Turkey sausage	174



Your shopping list alternatives

Use the table below to list all your most consumed foods, then search for low calorie alternatives to see how many calories you could save.



Hunger management

Are you getting enough protein?

- High protein foods are much slower to digest, suppressing the hunger hormones for a longer period. Make sure you're getting the majority of your protein from solid foods as opposed to yogurts/shakes etc.

Eat plenty of fibre.

- Similar to protein, foods that are high in fibre are also a lot slower to digest. Additionally, high fibrous foods are often low calorie but high volume. As a result, you can fill your plate and your stomach!

Drink plenty of water.

- Hunger can sometimes be a symptom of dehydration, always aim to drink 1.5-2.5L of water per day. Additionally, drinking a glass of water with meals can also help in creating the desired feeling of fullness.

Don't drink your calories.

- Although shakes and smoothies can be packed with nutrients, they're absorbed extremely quickly and you often find yourself feeling hungry shortly after. Try and make sure the majority of your daily calorie allowance is allocated to solid foods.

Eat slowly.

- Eating slowly allows your hunger hormones to down regulate. The quicker you eat a meal the less time your body has to register and can result in not feeling satisfied after your meal.

Are you getting enough sleep?

- Inadequate, quality sleep has been shown to increase hunger hormones. Aim to get 8-9hours of good quality sleep per day.

Try to manage your stress levels.

- Keeping stress levels low will also help in suppressing appetite. Find a management technique that works for you, for example, going for a walk, listening to music, watching TV, going to the gym.



Training While in a Calorie Deficit

Low intensity steady state (LISS).

- LISS training is a brilliant form of exercise to burn extra calories without resulting in huge amounts of fatigue. A good example is going for a long walk, bike ride, gentle jog or swim. These forms of exercise could be done on days where you're not doing targeted vo2max/interval training.

Timing

- Choose a time of day where you naturally have the most energy. This could be earlier in the morning after a good sleep or a couple of hours after a meal. Making sure you select a time of day where you're not suffering from fatigue/hunger will allow you to maximise your training session.

Strength Training

- Whenever you put yourself in a calorie deficit, it's always a good idea to do some form of strength training to help maintain muscle tissue. Doing as little as one strength training session per week can be enough to prevent deterioration in strength and muscle tissue. Try and focus on full body workouts using compound exercises. I've included a simple full body resistance workout below.

Exercise	Repetitions	Sets
Dumbbell Squat	8-10	3
Dumbbell Lunges	8-10	2
Dumbbell Bench Press	8-12	3
Bent Over Row	8-10	3
Shoulder Press	8-12	3
Weighted Crunches	10-12	3

Post workout meal.

- Aim to have a higher carbohydrate-based meal after training. This will help to refuel your muscles energy stores, preventing a slump/crash in energy as the day progresses.



Further information

If you have any questions about this document, nutrition, fat loss, training or fitness please contact the Fitness Advisory Team.

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