# Nutrition \& health guide 


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## Introduction

Nutrition has never been more in the public eye than it is today but as a result we are bombarded with fad diets, misleading information and unnecessarily technical explanations.

This Nutrition Guide from New Image removes all the jargon and instead focuses on the simple principle of input and output - The more calories we eat and drink, the more calories we need to burn in our day-to-day lives.

Most of the time when we consider nutrition and "diets", we think about weight loss. However, for many of you it may be that you are actually looking to increase your muscle mass. This Nutrition Guide has been designed to offer healthy 'macro-based' meal suggestions at increasing calorie levels so that, when combined, they make up a daily or weekly plan.

Whatever your health and fitness goals, this guide offers recipes split into calorie brackets so that you can build a plan to suit you.

All meals can be mixed and matched but we should aim to include the following each day:

- 1 breakfast, 1 main meal and 1 lighter meal
- At least 5 portions of fruit and vegetables. Fresh, frozen, canned and dried all count towards this total as does fruit juice (as maximum 1 portion) or fruit smoothie (as maximum 2 portions)
- 2-3 servings of low fat dairy foods. A serving is $1 / 3$ pint ( 200 ml ) skimmed or semi skimmed milk or 1 carton $(125 \mathrm{~g})$ of yogurt or $1 \mathrm{oz}(30 \mathrm{~g})$ reduced fat cheese
- 2 fish meals per week at least one of which should be an oily fish (salmon/ sardines/ mackerel)
- Wholegrain versions of starchy carbohydrates e.g. wholemeal or rye/seeded breads/wholegrain rice or pasta/wholegrain breakfast cereals
- Plenty of water. Water is under-rated and amazing so keep your water intake sufficient.

A healthy target for weight loss is to lose 2 lb per week through both diet and exercise. 2lb of body fat is the equivalent of 7,000 calories. Sound daunting? Break it down. If you reduce your calories intake by 500 calories per day (but never less than 1,200 for women and 1,500 for men) and exercise for 30 minutes per day, you can reach that target. As an example, there are 500 calories in 4 rashers of bacon or just 2 chocolate bars. Such small changes can make a big difference.

The New Image ${ }^{\circledR}$ brand was created to help you reach your health, wellbeing and fitness goals, no matter what they are. We engineer unique and innovative fitness tools for a wide variety of people and needs, from low-impact aerobic equipment to high intensity training devices.


## Introduction to Macro's:

> Macronutrients are the structural and energy-giving components of our foods that most of us are familiar with, even if we don't know them by this name.
> They include carbohydrates, fats and proteins.

A balanced diet is made up of a combination of these macronutrients, or Macros, because they give our bodies the fuel we need to thrive. The term Macro is used because we need a relatively large amount of these 3 categories.

Micronutrients on the other hand are the vitamins, minerals, trace elements, phytochemicals, and antioxidants that, while also essential for good health, are only required in small quantities (hence Micro!).

Nutrition is a field of study that can be incredibly complex or beautifully simple so here are some simple suggestions for a healthy, balanced and fuelling diet.

## Eat the rainbow:

Particularly important with fruit and vegetables, consider the colour of the food you're eating. In most cases, colour gives an indication of the micronutrients found in our fruit and vegetables so the wider the variety we consume, the wider the variety of micronutrients we take on.

## Don't be afraid of carbs:

Carbohydrates get a bad reputation but according to the British Dietic Association they should make up about half our energy intake. One of the reasons carbs are mis-represented is because there are "good" and "bad" carbs.

Simple (bad) carbs are digested quickly by the body, resulting in a spike in blood sugar levels. Complex (good) carbs on the other hand take longer to be broken down and for the sugars to be absorbed, so blood sugar levels rise more slowly. Starch in particular is a complex carbohydrate found in cereal, grains, bread, flour, pasta, rice and some fruit and vegetables. The hormone insulin helps turn these sugars into the energy our muscles and brain need.

## Fill up on vegetables:

If you're looking to lose weight, you want to eat foods that are less "calorie dense". Energy density is the number of calories in a specific volume of food. High energy density foods mean that there are a lot of calories in little food (think flapjack). Low energy density means there are few calories in a lot of food (think lettuce). While this sounds counter-intuitive, our stomach's tell our brains we are full based on volume, not on calorie intake.

Eating more low-energy-dense foods will help you feel fuller on fewer calories and therefore will help you lose weight. Fruit and vegetables generally have high water and fibre content, which provide volume and weight but not calories. Raw, fresh carrots for example are about $88 \%$ water meaning a medium carrot has only about 25 calories.

Whatever you do, remember that it is much easier to stick to something if you make small changes, one step at a time. Changes become habits and remember that the World Health Organisation (WHO) defines Nutrition as, "the intake of food, considered in relation to the body's dietary needs." In other words, by eating well, you're giving your body the fuel it needs to perform at its best!



## The importance of movement

As with nutrition, keeping things simple will give you the best chance of success. Aim to be active at least once on a daily basis.

## This alone will help you:

- Maintain a healthy weight
- Maintain the ability to perform everyday tasks with ease
- Improve self-esteem
- Reduce symptoms of depression and anxiety

There are many ways to approach physical activity and exercise. 150 minutes of moderate intensity activity per week split into $5 \times 30$ minute sessions works well for some while others would prefer 75 minutes of high intensity activity ( $5 \times 15$ minutes). Your lifestyle will ultimately determine your options but for many of us time is the key driver.

If you're too busy to go to the gym, make sure you have everything you need at home and choose a time of day when you have the most energy. Mix up your workout to keep boredom at bay and keep track of your progress - it will help keep you motivated to see your performance improving.

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## Snacks

## 100 calories each (2 per day)

1. Large milky cappuccino or latte coffee made with 200 ml semi skimmed milk.
2. 2 rye crispbreads with 1 tbsp cottage cheese or 2 breadsticks with 2 tbsp tzatziki.
3. Fresh fruit 2 pieces choose from: pear, apple, peach, nectarine, orange or a small banana.
4. 1 slice malt loaf topped with 1 tsp low fat spread.
5. 3 handfuls plain popcorn.
6. Cocoa made with 150 ml semi skimmed milk, 2 tsps cocoa powder and an artificial sweetener.
7. 3 tbsp reduced fat hummus with cherry tomatoes and/or celery/carrot sticks.
8. 20 g unsalted almonds.
9. 2 plain biscuits such as ginger nuts, jaffa cakes, Nice or oatcakes.
10. 1 small packet of reduced fat crisps.

## Breakfasts

## 300 calories each

1. 2 Weetabix with 125 ml semi skimmed milk, 1 tablespoon dried fruit and a glass of unsweetened fruit juice.
2. 1 boiled egg with 2 slices of wholemeal toast spread with 1 tsp of low fat spread and a glass of unsweetened fruit juice.
3. Bowl of Shreddies with 125 ml semi skimmed milk and a large sliced banana.
4. Bowl of muesli $(40 \mathrm{~g})$ with semi skimmed milk ( 125 ml ) and 1 slice wholemeal toast with 1 tsp low fat spread and marmite.
5. Wholegrain English muffin topped with 1 tsp low fat spread and a poached egg with steamed spinach. 1 glass of unsweetened fruit juice.
6. 2 slices of toast made with granary wholemeal or rye bread with 2 teaspoons of low fat spread and 2 tsp marmalade. 1 small pot of fat free fruit or plain yoghurt.
7. Porridge made with $(40 \mathrm{~g})$ oats and 125 ml semi skimmed milk with 2 large handfuls blueberries. A glass of unsweetened fruit juice.
8. Fruit and fibre $(40 \mathrm{~g})$ with 125 ml semi skimmed milk and a sliced peach or nectarine a glass of unsweetened fruit juice.
9. 1 wholegrain bagel spread with low fat soft cheese spread ( 25 g ) and smoked salmon (25g).

## Light Meals

## 400 calories each

## 1. Turkey and Avocado Sandwich

Split open 1 Sandwich Thin and spread with 1 light/low fat cheese triangle. Top with 110 g thinly sliced cold turkey breast and 2 to 3 tomato slices plus a couple of avocado slices. Serve with a 2025 g bag of reduced fat/ lite crisps (giving around 100 calories per bag).
2. Cheddar and Pickle Sandwich

Two slices of wholegrain bread filled with 40 g reduced fat cheddar and 1 tablespoon of pickle. Serve with a bowl ( 250 ml ) vegetable soup and a satsuma.

## 3. Ham and Cheese Bagel

Split open 1 wholegrain bagel and fill with 1 teaspoon mustard, 3 wafer thin slices of ham and a thin slice $(25 \mathrm{~g})$ reduced fat cheese slice and some lettuce. Cut in half to serve. Serve with a fat free fruit yoghurt.

## 4. Hearty Soup and Bread

Serve a large bowl $(400 \mathrm{~g})$ of broccoli and stilton or mushroom soup with a wholegrain bread roll spread with low fat spread and a piece of fresh fruit.

## 5. Chicken and Hummus Wrap

Spread 2 tablespoons $(50 \mathrm{~g})$ of reduced fat hummus (any flavour) onto a small (40g) tortilla wrap. Add 80 g thinly sliced cold chicken with a few green salad leaves and a tomato sliced. Roll up and cut in half. Serve with 2 pieces of fresh fruit or a $20-25 \mathrm{~g}$ bag reduced fat/ lite crisps (giving approximately 100 calories per bag).
6. Sardines on Toast

Toast two slices of wholegrain bread on one side. Top with a small tin of sardines in tomato sauce and grill. Serve with a pot dessert such as rice pudding, trifle or mousse to give around 120130 calories.

7. Fish and Bean Couscous Salad

Cook 40 g dry couscous according to packet instructions, allow to cool and mix with 50 g mackerel or pilchards. Add 2 tablespoons canned chickpeas and $1 / 2$ small cucumber, peeled and chopped plus 5 olives chopped and 1 tablespoon light or low fat vinaigrette dressing.
8. Tuna and White Bean Salad

Cook 30 g pasta, drain and cool. Add 100 g drained canned tuna in brine or spring water and 130 g canned cannellini or haricot beans, rinsed and drained. Mix in $1 / 2$ medium cucumber, peeled and chopped and 35 g reduced-fat feta cheese plus 2 tablespoons light salad dressing. Toss to coat.

## 9. Cheesy Beans on Toast

Serve 200 g baked beans on two slices of wholegrain toast topped with 30 g grated reduced fat cheddar.

## 10. Cheese and Tomato Omelette

Make an omelette using two eggs cooked in a pan with 1 tsp vegetable oil. Fill with 30 g reduced fat grated cheddar and a sliced tomato. Serve with a slice of wholegrain bread spread with low fat spread. Serve with a piece of fresh fruit.

## Small Main Meals

## 600 calories each

## 1. Beef Fajitas

Dry-fry 75 g seasoned extra lean minced beef in a non-stick pan with 2 tablespoons of any chopped vegetables and add 1 tablespoon of kidney beans. Add to 2 soft corn or wheat tortillas. Add some reduced fat grated cheese $(25 \mathrm{~g})$, a tablespoon reduced fat crème fraiche and some chopped salad and roll up. Follow with a piece of fruit.
2. Tuna and Vegetable Pasta

Cook 75 g dry pasta in boiling water. Heat a teaspoon of olive oil and gently cook half a chopped onion, a small tin of chopped tomatoes, half a small tin of sweetcorn and a handful of chopped mushrooms. Cook for about 10 minutes then add 125 g tinned tuna in brine (drained). Serve with a small bowl of mixed salad. Follow with a couple of pieces of fruit.

## 3. Chinese Stir-fried Prawns and Rice

Cook 60g basmati rice. Stir fry 150 g raw prawns and 125 g mixed vegetables in 2 teaspoons vegetable oil then add two tablespoons of the stir fry sauce of your choice. Follow with a bowl of fresh fruit salad $(140 \mathrm{~g})$ topped with a tablespoon of plain low-fat yoghurt.

## 4. Pork Chop with Spinach and Potatoes

Grill 120g lean-cut pork chop with fat removed. Boil 6 new potatoes. Cook 125 g spinach and a portion of peas. Serve together with a tablespoon of apple sauce and 2 tablespoons of gravy made from granules. Follow with 2 scoops ice cream.

## 5. Beef Burger and Chips

Grill a low-fat beef burger. Serve on a burger bun with 125 g straight cut oven chips, mixed salad and a small portion of relish or mustard.

## 6. Vegetable Pizza

Spread a small individual pizza base (approx 75 g weight) with 125 g passata or tomato puree and top with a variety of sliced vegetables such as peppers, mushrooms, corn or courgettes. Top with 50 g sliced reduced fat mozzarella cheese. Bake in oven according to pizza base instructions.

Serve with 1 tablespoon of reduced calorie coleslaw and a mixed green salad dressed with low calorie salad dressing. Follow with a small bowl of fresh fruit salad topped with a tablespoon of plain low-fat yoghurt.
7. Baked Potato, Chicken and Mixed Vegetables Bake a large jacket potato (200g). Grill a medium portion of skinless chicken breast. Serve with a large portion of any cooked mixed vegetables. Follow with a pot of fat free yoghurt $(125 \mathrm{~g})$ and 2 handfuls of berries.

## 8. Salmon and Couscous Salad

Prepare 75 g couscous as per the instructions on the packet. Grill a small ( 75 g ) salmon fillet and steam 75 g broccoli. Dress the couscous with half a tablespoon olive oil and juice of half a lemon. Follow with a pot of fat free fruit yoghurt and 2 handfuls of berries.

## 9. Spicy Vegetable Casserole

Cook half a large chopped onion and a clove of garlic in 2 teaspoons of vegetable oil for a couple of minutes. Cook 50 g red lentils in boiling water with a stock cube and half a teaspoon curry powder, add the onion and simmer for 1520 minutes. Serve with a large wholemeal pitta bread. Follow with 3 small scoops of fruit sorbet.

## Medium Main Meals

## 800 calories each

## 1. Chicken Pasta

Cook 60 g dried pasta in boiling water. Cook 75 g skinless chicken breast strips in 1 teaspoon olive oil with 125 g chopped mixed vegetables (e.g. sliced red \& green peppers, onions \& garlic). Add 125 g tomato based pasta sauce and cook until chicken is ready. Mix with pasta and serve with a couple of slices of French bread. Follow with a piece of fruit.
2. Beef Burger and Chips

Grill 2 low-fat beef burgers (about 100g). Serve on a small bread roll with 10 oven chips, mixed salad and a small portion of relish or mustard. Follow with a bowl of fresh fruit salad and low-fat custard.
3. Baked Potato with Cheese, Beans and Salad

Bake a medium potato $(180 \mathrm{~g})$ in its skin. Heat 125 g baked beans. Serve together with a mixed green salad, one tablespoon of low-fat dressing and 50 g of grated cheese. Follow with a scoop of ice-cream.
4. Chicken Ragout

Coat 125 g skinless, boneless chicken in seasoned flour, cook for 5-10 minutes in 1 teaspoon olive oil in a large non-stick pan. Add half a chopped onion, half a tin of chopped tomatoes, and handful of chopped mushrooms and a chopped carrot. Then add 250 ml chicken stock, cover and cook for around 30 minutes until chicken is cooked through. Serve with a medium $(120 \mathrm{~g})$ baked potato and a green salad. Follow with a small pot of low-fat rice pudding (125g) and some stewed fruit.

## 5. Homemade Fish and Chips

Cut 225 g of potatoes into chips, toss in olive oil and spread on a baking sheet and cook in the oven at $200^{\circ} \mathrm{c}\left(400^{\circ} \mathrm{f}\right)$ or Gas 6 for about 40 minutes until golden brown. Brush a large ( 180 g ) white fish fillet with olive oil, season and bake in the oven for 12-15 minutes. Serve with a few tablespoons of boiled peas, a slice of bread and a tablespoon of tartar sauce, and sprinkle with lemon juice and chopped parsley. Follow with a small $(100 \mathrm{~g})$ portion of fruit trifle.
6. Thai Chicken and Noodle Salad

Grill a skinless chicken breast (125g). Boil 75g medium egg noodles and cook according to the instructions on the packet. Finely chop a couple of handfuls of vegetables, e.g. cabbage, a carrot,

2 spring onions and half a red pepper. Slice the cooked chicken and mix with the vegetables and noodles. Dress with 1 tablespoon soy sauce, the juice of half a lime, 1 tablespoon olive oil and half a chopped clove of garlic. Follow with a bowl of mixed tropical fruit and 2 tablespoons of low-fat yoghurt.

## 7. Chilli Con Carne

Cook 60 g rice. Chop half an onion and a clove of garlic and cook in a non-stick pan with 180 g lean beef mince, until browned. Add half a tin of tomatoes $(200 \mathrm{~g})$, a small tin of red kidney beans, a chopped pepper, 1 teaspoon cumin powder and half a teaspoon chilli powder and a stock cube and simmer until thickened. Serve with rice. Follow with a piece of fruit or a pot of low-fat yoghurt (125g).

## Large Main Meals

## 1000 calories each

## 1. Prawn Mayonnaise Jacket Potato

Bake a large potato $(250 \mathrm{~g})$ in its skin. Mix large packet $(150 \mathrm{~g})$ cooked prawns with 2 tablespoons of reduced fat mayonnaise mixed with 2 teaspoons of tomato ketchup, 2 teaspoons of lemon juice and black pepper. Top the potato with 1 tablespoon $(20 \mathrm{~g})$ reduced fat spread and the prawns in dressing. Serve with a mixed salad dressed with half a tablespoon of olive oil and vinegar. Serve with a bread roll spread with 1 teaspoon butter or margarine. Follow with a small portion of $(100 \mathrm{~g})$ fruit crumble.

## 2. Steak and Chips

Cut 250 g potatoes into chips, toss in 1 tablespoon oil and spread on a baking sheet and cook in the oven ( $200^{\circ} \mathrm{C} / 400^{\circ} \mathrm{f} / \mathrm{Gas} 6$ ) for about 40 minutes until golden brown. Brush 225 g lean steak with a little oil and grill until cooked to your liking.

Serve with the chips, a portion of grilled tomatoes, a portion of grilled mushrooms, a teaspoon of mustard and a bread roll and butter. Follow with fresh fruit salad $(200 \mathrm{~g})$ topped with 3 tablespoons reduced fat Greek yoghurt.

## 3. Smoked Mackerel Fishcakes

Mix 100 g mash potato (packet or fresh) in a bowl with 3 finely sliced spring onions, a tablespoon of chopped parsley, 1 teaspoon creamed horseradish sauce and a medium sized $(120 \mathrm{~g})$ boneless flaked fillet of smoked mackerel. Shape into 3 even sized cakes, dust with flour, brush on a little beaten egg and coat with breadcrumbs. Shallow fry in 1 tablespoon of vegetable oil for 6 minutes on each side until crunchy, golden brown and hot all the way through. Serve with 150 g new potatoes, a lemon wedge and a large portion of broccoli. Follow with a scoop of vanilla ice cream and a handful of strawberries.

## 4. Shepherd's Pie

Cook half a chopped onion, a clove of garlic and 200 g lean minced lamb in 1 teaspoon of vegetable oil in a non-stick pan until browned. Add half a tin of chopped tomatoes, a pinch of dried mixed herbs and 3 tablespoons of any other vegetables available such as chopped red peppers, carrots, mushrooms or canned sweetcorn (about 100g total). Season and simmer until the lamb is cooked through. Meanwhile peel and boil 1 large $(250 \mathrm{~g})$ potato. Season and mash with 2 tablespoons of semi-skimmed milk. Place the meat mixture in a heat proof dish, top with the mash and 25 g grated low fat cheese. Grill until cheese is bubbling. Serve with 3 tablespoons of peas or a large mixed salad with low fat dressing. Follow with 125 g fruit yoghurt mixed with 1 tablespoon dried mixed fruit and nuts.
5. Spicy Pork and Cashew Stir-fry with Noodles

Stir-fry 120 g thinly sliced lean boneless pork loin in 1 tablespoon oil and diced clove garlic and a teaspoon grated root ginger if liked. Cook thoroughly until meat is no longer pink. Add a pinch of chilli powder and 1 tablespoon of soy sauce. Stir well and add 150 g sliced mixed vegetables such as beansprouts, red peppers, carrots, mushrooms, spring onion, cabbage or broccoli. Add a quarter packet (approx 90g) dried egg noodles prepared according to packet instructions and 1 tablespoon $(20 \mathrm{~g})$ roasted cashew nuts. Follow with half a can $(200 \mathrm{~g})$ rice pudding with 1 teaspoon reduced sugar jam.

## Working out what you need

Your Basal Metabolic Rate (BMR) is the number of calories your body uses each day simply to keep it ticking over - things like breathing and keeping your heart beating. All activity on top of this will increase the amount of calories you get through.

## Calculate your BMR

Female
$655+(9.6 \times$ weight in Kg$)+(1.8 \times$ height in cm$)$

- $(4.7 \times$ age in years $)=B M R$

Male
$66+(13.7 \times$ weight in Kg$)+(5 \times$ height in cm$)$

- (6.8 x age in years) = BMR


## Harris Benedict Formula

To determine your total daily calorie needs, multiply your BMR by the appropriate activity factor, as follows:
If you are sedentary (little or no exercise) : Calories = BMR x 1.2
If you are moderately active (moderate exercise/sports 3-5 days/week) : Calories = BMR $\times 1.55$
If you are very active (hard exercise/sports \& physical job or 6-7 days a week) : Calories = BMR $\times 1.725$

## Calories to lose weight

There are approximately 3,500 calories in a pound of stored body fat. So, if you create a 3,500-calorie deficit through diet, exercise or a combination of both per week - you will lose one pound of body weight (on average $75 \%$ of this is fat, $25 \%$ lean tissue).

If you create a 7,000 calorie deficit per week you will lose two pounds per week which is a healthy weight loss target.

The calorie deficit can be achieved either by calorie-restriction alone, or by a combination of fewer calories in (diet) and more calories out (exercise). This combination of diet and exercise is best for lasting weight loss. Indeed, sustained weight loss is difficult or impossible without increased regular exercise.

As an example, if I consume 2,500 calories of food (input) and burn 500 calories through movement (output) and I have a BMR of 2,000 , my balance is 0 (Input - Output - BMR) which is perfect if I am trying to maintain weight. If I was looking to lose weight, I would aim to eat a little less or exercise a little more.


## Personal Progress Tracker

|  | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Breakfast |  |  |  |  |  |  |  |
| Calories |  |  |  |  |  |  |  |
| Snack |  |  |  |  |  |  |  |
| Calories |  |  |  |  |  |  |  |
| Lunch |  |  |  |  |  |  |  |
| Calories |  |  |  |  |  |  |  |
| Snack |  |  |  |  |  |  |  |
| Calories |  |  |  |  |  |  |  |
| Supper |  |  |  |  |  |  |  |
| Calories |  |  |  |  |  |  |  |
| Total Input |  |  |  |  |  |  |  |
| Total Output |  |  |  |  |  |  |  |
| BMR |  |  |  |  |  |  |  |
| Balance * |  |  |  |  |  |  |  |

## Let's go!

Keeping ourselves healthy is the most important thing we can do and yet so many of us neglect our bodies, focusing instead on convenience or short term fixes.

It's easy to do when we live busy lives so rather than making major life changes, the focus of this guide is to offer a few informed choices throughout your day. You can see, at a glance, how many calories are in each recipe so the maths is easy.

Even better than that, the recipes result in delicious meals that will keep you full and give you the energy your body needs to thrive.

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they are. We engineer unique and innovative fitness tools for a wide variety of people and needs, from low-impact aerobic equipment to high intensity training devices.

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