FINDING YOUR ENERGY REQUIREMENTS

RnG NUTRITION

COMMON TERMS

BMR–(Basal Metabolic rate)

The total number of calories you burn just for basic bodily functions, imagine lying in a coma not moving – so bodily functions like breathing, brain activity etc.

Activity Level - after BMR this is the 2nd most important factor in working out how many calories you need each day. The more active you are the more calories you will need – see table in section below

TDEE–(Total Daily Energy Expenditure)

The amount of Calories (Energy) you expend during a day. This takes into consideration your BMR plus your Activity Level.

Weight/Age/Gender - These can be major factors in the number of calories you need. Examples: the bigger you are the more calories you need. Your metabolic rate tends to slow down with age and men tend to require more calories than women due to more muscle mass

Maintenance Calories – the amount of Calories required to keep your weight the same based on the above weight/age/gender and your daily activity level.

I have deliberately tried to keep this as straight forward as possible to ease any confusion.

Convert to KG: Weight in Stones x 6.35 or weight in Pounds / 2.2

Working out your Calories

Calculate the BMR (Basal Metabolic Rate)

As mentioned in the common terms section the BMR is the number of calories the body burns at rest for basic functioning. The BMR formula uses the variables of height, weight, age and gender. The 2 most popular methods to work out your BMR are below. **Important** - this is a ballpark figure and as such you will need to track your progress and make necessary adjustments if required

The quick way:

The Martin MacDonald (MAC Nutrition) method:

- Weight in kg x 24 for men

- Weight in kg x 22 for women

Doesn't account for body composition or activity level so may underestimate energy needs

Harris Benedict Equation

Men

BMR: 66+(6.23xweight in pounds) + (12.7xheight in inches) -(6.8xage in years)

Women

BMR= 655 + (4.35x weight in pounds) + (4.7xheight in inches) - (4.7xage in years)

Now we have to work out our **TDEE** (Total Daily energy expenditure)

We do this by multiplying the BMR figure by an Activity Multiplier and this requires a little self-honesty! How active are you really

Lifestyle	Definition	Physical Activity Multiplier
Sedentary	Little or no activity	BMR x 1.1
Lightly active	Light activity, some of the say standing or walking	BMR x 1.3
Moderate Activity	Moderate activity levels, on feet most of the day – postman etc	BMR x 1.5
Very Active	Hard Daily activity or exercise – building labourer etc	BMR x 1.7 +

Now, the calculation you should be left with should theoretically be your '*maintenance calories*'. Nevertheless, nobody in the human race works solely off a calculation, as we can all imagine we're not robots. This number will represent a guideline and a solid starting point. Now, in order for us to **lose** weight, we must create what's called a Calorie or Energy deficit.

If we say that a 3500kcals deficit over the course of a week (500 Calories per day to be precise) should equate to 1lb of weight/fat loss. Therefore, we must subtract, for talks sake, 250/350/500 Calories a day (depending on your goal) from our BMR to achieve our target weekly weight loss.

e.g. We have Davy, a 32 year old, 75 inch tall Male, who weighs 202lbs

BMR using *Harris Benedict method* =66+(6.23x202)+(12.7x75)-(6.8x32) = 2058.9

Activity Level: Moderate (5 days a week) = 1.5

Therefore, Davy should theoretically need to eat 3088.35kcals to MAINTAIN his current body weight. Davy is relatively lean as it is, but wants to lose a little more body fat without sacrificing too much muscle mass so we would suggest a 250kcal deficit daily to hopefully lead to 0.5lb weight loss per week.

More about
Calorie deficits

Now you know your TDEE - next step is to adjust your calories up or down depending on your goal and your ability to manage hunger, energy levels, moodetcetc

Important - For all options however I strongly suggest a programme of progressive resistance weight training to compliment your nutritional plan. Is it completely necessary? No it's not and if exercise is not for you then do not feel you have to do but it can help to speed things up whilst not having to create the Calorie Deficit solely from the food we take in

Maintain weight - stay at your daily caloric maintenance level

Lose weight - reduce your calories below your maintenance level

Gain weight - create a surplus be increasing your calories

Balanced Weight

Weight Gain

Weight Loss
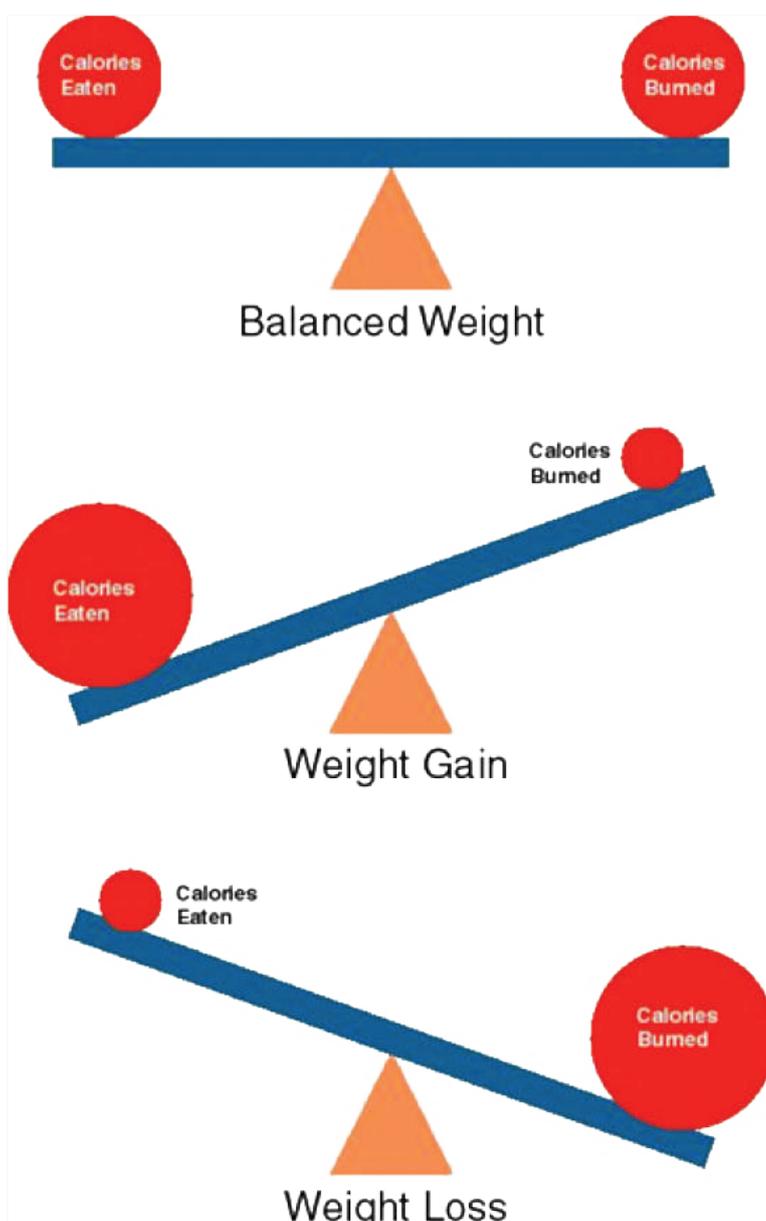
Making sure you're on track

So, the most accurate way of tracking your maintenance calories is by using the result of your above equation and running with those calories for a period of 2 weeks. From here, the steps are as follows

1. Acquire a digital scale weight.

2. DOWLOAD MYFITNESSPAL or any calorie counting app that you may prefer. Enter the Calorie allowance that you have worked out above.

3. Weigh and track your food as best as possible for 2 weeks (buy food scales, £8 in Tescos or even Aamazonetc!).

4. Note your corresponding morning weights (as soon as you wake before food or water).

5. Record EVERYTHING and split the weigh-ins into 2 weekly averages, by adding your first 7 weigh ins together and dividing by 7 and the same thing with the 2nd week.

6. Tabulate as shown below (or something to similar effect)

WEEK 1			WEEK 1	Avg 180.3
MON	180 LBS		MON	180 LBS
TUE			TUE	180 LBS
WED			WED	181 LBS
THURS			THURS	180 LBS
FRI			FRI	179 LBS
SAT			SAT	181 LBS
SUN			SUN	181 LBS
WEEK 2			**WEEK 2**	Avg 179
MON	182 LBS		MON	182 LBS
TUE			TUE	180 LBS
WED			WED	180 LBS
THURS	+2 LBS		THURS	178 LBS
FRI			FRI	− 1.3LB	178 LBS
SAT			SAT	178 LBS
SUN			SUN	177 LBS

As you can see the weight average is coming down over the weeks which means for a fat loss goal we are on track!