## Health Professional User Guide for Weight Loss You Can See! Resources

## Introduction

This guide provides information on how to use each of the resources (Ref: 9262-9268) together with a series of charts to help in prescribing an energy deficit diet.The energy level prescribed for a patient will be based on an estimate of their initial maintenance energy needs minus 600kcal/day.

## A Guide to Using the Patient Resources <br> The Weight Loss You Can See! Leaflet (Ref: 9262)

This leaflet should be given to the patient when introducing the energy deficit diet and worked through together. The patient's personal information should also be recorded in this leaflet, together with their prescribed dietary regimen of a 600 calorie energy deficit diet.

## Note on Physical Activity

The physical activity recommendations are based on SIGN (2010) and NICE (2015) recommendations.

## SIGN recommendations:

- physical activity alone appears to be less effective than when combined with a 600kcal deficit diet
- overweight and obese individuals should be prescribed a volume of physical activity equal to approximately $1,800-2,500 \mathrm{kcal} / \mathrm{wee}$. This corresponds to approximately 225-300 minutes/week of moderate intensity physical activity (which may be achieved through five sessions of 45-60 minutes/week, or lesser amounts of vigorous physical activity).


## NICE recommendations

- do at least 30 minutes of at least moderate intensity physical activity on 5 or more days a week; 45-60 minutes may be needed to prevent obesity; people who have lost weight may need to do 60-90 minutes to avoid regaining weight.


## Note on Energy Deficit Diet Calculation

The portions used in this resource have been calculated based on calories and may not be in line with current healthy eating recommendations of:

- 5-a-day (80g) fruit and vegetables (Public Health England) (Food Standards Agency)
- eat no more than 500 g of cooked red meat per week (World Cancer Research Fund)
- have less than 6 g of salt per day (Public Health England)
- eat 2 portions of fish per week, at least one of which should be oily (Public Health England).


## The Daily Meal Plan Pads (Ref: 9262-9267)

These resources available in electronic format via NDR Prescribe, provides the patient with a visual example of what a particular dietary regimen looks like.

## Guidelines on how to complete a daily meal plan

1. Calculate the patient's energy deficit diet in terms of calories and fill in top section detailing the patient's dietary regimen.
2. Refer to page 7 of this guideline to find the corresponding food portions from each food group and any additional extra calories.
3. For energy deficit diets not visually represented within the meal plans, adapt the meal plan to fit the patient's calorie allocation by adding additional food portions and extras at the bottom of the page in the 'Additional food portions or extras for a xxxx or xxxx diet'.
4. Total up the final row for the patient so they can see their food portion allowance from each food group and extras.

For example your patient requires 2200 calories which equates to 9,9,3,3,3 from the respective food portions and 280calories from extras. However, when you look at the example 2000 calories diet you will see that this equates to $8,8,3,3,3$ with 200 calories from extras. There is an additional requirement for 1 extra food portion in both the potatoes, bread, rice, pasta and other starchy carbohydrate ( CHO ) and the fruit and vegetable (F\&V) groups and an additional 80 calories from extras. You would insert these additional requirements in the row at the bottom of the page titled 'Additional food portions and extras for a 2100 or 2400 diet'

## The Blank Food and Drink Diary (Ref: 9268)

The blank daily diary available via NDR Prescribe should be given to the patient to allow them to monitor their diet and tosee where they need to make changes to their diet to achieve weight loss.

## Chart 1

BMI reference chart - weights for a given height, for a healthy weight range, overweight or obese.

## Imperial

| Height | Weight for BMI 18.5 | Weight for BMI 25 | Weight for BMI 30 | Height | Weight for BMI 18.5 | Weight for BMI 25 | Weight for BMI 30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4'8' | 5st 12lbs | 7st 131bs | 9st 71bs | 5'8' | 8st 91bs | 11st 10lbs | 14st 1 lbs |
| 4'9' | 6st 1 lbs | 8st 4lbs | 9st 12lbs | 5'9" | 8st 131bs | 12st 1 lbs | 14st 7lbs |
| 4'10' | 6st 4lbs | 8st 81bs | 10st 3lbs | 5'10" | 9st 31bs | 12st 6lbs | 14st 13Ibs |
| 4'11' | 6st 71bs | 8st 12lbs | 10st 81bs | 5'11" | 9st 61bs | 12st 11/bs | 15st 4lbs |
| 5' | 6st 10lbs | 9st 2lbs | 10st 13Ibs | 6 ' | 9st 10lbs | 13st 2lbs | 15st 10lbs |
| 5'1' | 7st Olbs | 9st 6lbs | 11st 4lbs | 6'1' | 10st Olbs | 13st 7lbs | 16st 3lbs |
| 5'2' | 7st 31bs | 9st 111bs | 11st 9lbs | 6'2' | 10st 4lbs | 13st 131bs | 16st 9lbs |
| 5'3' | 7st 61bs | 10st 1lbs | 12st 1lbs | $63^{\prime \prime}$ | 10st 8lbs | 14st 4lbs | 17st 1lbs |
| 5'4' | 7st 91bs | 10st 6lbs | 12st 6lbs | $6^{\prime} 4^{\prime \prime}$ | 10st 12lbs | 14st 9lbs | 17st 8lbs |
| 5'5" | 7st 131bs | 10st 10lbs | 12st 11/bs | 6'5" | 11st 2lbs | 15st Olbs | 18st Olbs |
| 5'6" | 8st 2lbs | 11st 1lbs | 13st 3lbs | $6^{\prime} 6^{\prime \prime}$ | 11st 6lbs | 15st 5lbs | 18st 7lbs |
| 5'7' | 8st 61bs | 11st 6lbs | 13st 9lbs | 6'7' | 11st 10lbs | 15st 11/bs | 19st Olbs |

## Metric

| Height | Weight for <br> BMI 18.5 | Weight for <br> BMI 25 | Weight for <br> BMI 30 | Height | Weight for <br> BMI 18.5 | Weight for <br> BMI 25 | Weight for <br> BMI 30 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.42 m | 37.3 | 50.4 | 60.5 | 1.73 m | 55.4 | 74.8 | 89.8 |
| 1.45 m | 38.9 | 52.6 | 63.1 | 1.75 m | 56.7 | 76.6 | 91.9 |
| 1.47 m | 40.0 | 54.0 | 64.8 | 1.78 m | 58.6 | 79.2 | 95.0 |
| 1.50 m | 41.6 | 56.2 | 67.5 | 1.80 m | 59.9 | 81.0 | 97.2 |
| 1.52 m | 42.7 | 57.8 | 69.3 | 1.83 m | 62.0 | 83.8 | 100.5 |
| 1.55 m | 44.4 | 60.0 | 72.0 | 1.85 m | 63.3 | 85.6 | 102.7 |
| 1.57 m | 45.6 | 61.6 | 74.1 | 1.88 m | 65.4 | 88.4 | 106.0 |
| 1.60 m | 47.4 | 64.0 | 76.8 | 1.91 m | 67.5 | 91.2 | 109.4 |
| 1.63 m | 49.1 | 66.4 | 78.7 | 1.93 m | 68.9 | 93.1 | 111.7 |
| 1.65 m | 50.4 | 68.0 | 81.7 | 1.96 m | 71.1 | 96.0 | 115.2 |
| 1.68 m | 52.2 | 70.6 | 84.7 | 1.98 m | 72.5 | 98.0 | 117.6 |

## Chart 2

Weight loss needed to achieve $5 \%$ and $10 \%$ weight loss, based on start weight (in half stone bands).

| Weight |  | To lose 5\% means losing |  | To lose 10\% means losing |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Imperial (stones) | Metric (kg) | Imperial (lbs) | Metric (kg) | Imperial (lbs) | Metric (kg) |
| 10 | 64 | 7.0 | 3.2 | 14.0 | 6.4 |
| 10.5 | 67 | 7.4 | 3.3 | 14.7 | 6.7 |
| 11 | 70 | 7.7 | 3.5 | 15.4 | 7.0 |
| 11.5 | 73 | 8.1 | 3.7 | 16.1 | 7.3 |
| 12 | 76 | 8.4 | 3.8 | 16.8 | 7.6 |
| 12.5 | 79 | 8.8 | 4.0 | 17.5 | 7.9 |
| 13 | 83 | 9.1 | 4.1 | 18.2 | 8.3 |
| 13.5 | 86 | 9.5 | 4.3 | 18.9 | 8.6 |
| 14 | 89 | 9.8 | 4.4 | 19.6 | 8.9 |
| 14.5 | 92 | 10.2 | 4.6 | 20.3 | 9.2 |
| 15 | 95 | 10.5 | 4.8 | 21.0 | 9.5 |
| 15.5 | 98 | 10.9 | 4.9 | 21.7 | 9.8 |
| 16 | 102 | 11.2 | 5.1 | 22.4 | 10.2 |
| 16.5 | 105 | 11.6 | 5.2 | 23.1 | 10.5 |
| 17 | 108 | 11.9 | 5.4 | 23.8 | 10.8 |
| 17.5 | 111 | 12.3 | 5.6 | 24.5 | 11.1 |
| 18 | 114 | 12.6 | 5.7 | 25.2 | 11.4 |
| 18.5 | 117 | 13.0 | 5.9 | 25.9 | 11.7 |
| 19 | 121 | 13.3 | 6.0 | 26.6 | 12.1 |
| 19.5 | 124 | 13.7 | 6.2 | 27.3 | 12.4 |
| 20 | 127 | 14.0 | 6.4 | 28.0 | 12.7 |
| 20.5 | 130 | 14.4 | 6.5 | 28.7 | 13.0 |
| 21 | 133 | 14.7 | 6.7 | 29.4 | 13.3 |
| 21.5 | 137 | 15.1 | 6.8 | 30.1 | 13.7 |
| 22 | 140 | 15.4 | 7.0 | 30.8 | 14.0 |
| 22.5 | 143 | 15.8 | 7.1 | 31.5 | 14.3 |
| 23 | 146 | 16.1 | 7.3 | 32.2 | 14.6 |
| 23.5 | 149 | 16.5 | 7.5 | 32.9 | 14.9 |
| 24 | 152 | 16.8 | 7.6 | 33.6 | 15.2 |
| 24.5 | 156 | 17.2 | 7.8 | 34.3 | 15.6 |
| 25 | 159 | 17.5 | 7.9 | 35.0 | 15.9 |
| 25.5 | 162 | 17.9 | 8.1 | 35.7 | 16.2 |
| 26 | 165 | 18.2 | 8.3 | 36.4 | 16.5 |
| 26.5 | 168 | 18.6 | 8.4 | 37.1 | 16.8 |
| 27 | 171 | 18.9 | 8.6 | 37.8 | 17.1 |
| 27.5 | 175 | 19.3 | 8.7 | 38.5 | 17.5 |
| 28 | 178 | 19.6 | 8.9 | 39.2 | 17.8 |
| 28.5 | 181 | 20.0 | 9.0 | 39.9 | 18.1 |
| 29 | 184 | 20.3 | 9.2 | 40.6 | 18.4 |
| 29.5 | 187 | 20.7 | 9.4 | 41.3 | 18.7 |


| Weight |  | To lose 5\% means losing |  | To lose 10\% means losing |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Imperial (stones) | Metric (kg) | Imperial (lbs) | Metric (kg) | Imperial (lbs) | Metric (kg) |
| 30 | 191 | 21.0 | 9.5 | 42.0 | 19.1 |
| 30.5 | 194 | 21.4 | 9.7 | 42.7 | 19.4 |
| 31 | 197 | 21.7 | 9.8 | 43.4 | 19.7 |
| 31.5 | 200 | 22.1 | 10.0 | 44.1 | 20.0 |
| 32 | 203 | 22.4 | 10.2 | 44.8 | 20.3 |
| 32.5 | 206 | 22.8 | 10.3 | 45.5 | 20.6 |
| 33 | 210 | 23.1 | 10.5 | 46.2 | 21.0 |
| 33.5 | 213 | 23.5 | 10.6 | 46.9 | 21.3 |
| 34 | 216 | 23.8 | 10.8 | 47.6 | 21.6 |
| 34.5 | 219 | 24.2 | 11.0 | 48.3 | 21.9 |
| 35 | 222 | 24.5 | 11.1 | 49.0 | 22.2 |
| 35.5 | 225 | 24.9 | 11.3 | 49.7 | 22.5 |
| 36 | 229 | 25.2 | 11.4 | 50.4 | 22.9 |
| 36.5 | 232 | 25.6 | 11.6 | 51.1 | 23.2 |
| 37 | 235 | 25.9 | 11.7 | 51.8 | 23.5 |
| 37.5 | 238 | 26.3 | 11.9 | 52.5 | 23.8 |
| 38 | 241 | 26.6 | 12.1 | 53.2 | 24.1 |
| 38.5 | 244 | 27.0 | 12.2 | 53.9 | 24.4 |
| 39 | 248 | 27.3 | 12.4 | 54.6 | 24.8 |
| 39.5 | 251 | 27.7 | 12.5 | 55.3 | 25.1 |
| 40 | 254 | 28.0 | 12.7 | 56.0 | 25.4 |
| 40.5 | 257 | 28.4 | 12.9 | 56.7 | 25.7 |
| 41 | 260 | 28.7 | 13.0 | 57.4 | 26.0 |
| 41.5 | 264 | 29.1 | 13.2 | 58.1 | 26.4 |
| 42 | 267 | 29.4 | 13.3 | 58.8 | 26.7 |
| 42.5 | 270 | 29.8 | 13.5 | 59.5 | 27.0 |
| 43 | 273 | 30.1 | 13.7 | 60.2 | 27.3 |
| 43.5 | 276 | 30.5 | 13.8 | 60.9 | 27.6 |
| 44 | 279 | 30.8 | 14.0 | 61.6 | 27.9 |
| 44.5 | 283 | 31.2 | 14.1 | 62.3 | 28.3 |
| 45 | 286 | 31.5 | 14.3 | 63.0 | 28.6 |
| 45.5 | 289 | 31.9 | 14.4 | 63.7 | 28.9 |
| 46 | 292 | 32.2 | 14.6 | 64.4 | 29.2 |
| 46.5 | 295 | 32.6 | 14.8 | 65.1 | 29.5 |
| 47 | 298 | 32.9 | 14.9 | 65.8 | 29.8 |
| 47.5 | 302 | 33.3 | 15.1 | 66.5 | 30.2 |
| 48 | 305 | 33.6 | 15.2 | 67.2 | 30.5 |
| 48.5 | 308 | 34.0 | 15.4 | 67.9 | 30.8 |
| 49 | 311 | 34.3 | 15.6 | 68.6 | 31.1 |
| 49.5 | 314 | 34.7 | 15.7 | 69.3 | 31.4 |
| 50 | 318 | 35.0 | 15.9 | 70.0 | 31.8 |

## Chart 3 - Estimated Energy Requirement (EER)

EERs to maintain body weight are calculated using a formula to account for four factors: gender, age, activity level and current weight. Modest energy deficit diets, which would achieve about $1 \mathrm{lb}(0.5 \mathrm{~kg})$ a week weight loss, are based on daily dietary intake of 600 calories less than the person's daily energy requirement. Work out patient's EER for a 600 calorie energy deficit diet using the information below. The information uses the Schofield and WHO energy requirement equations. However, there are alternative equations that you may prefer to use.

1. Basal Metabolic Rate (BMR): Based on patient's age, gender and current weight (in kg ) as listed in the chart below, predict the patient's BMR. These are based on modified Schofield equations. (Department of Health DietaryReference Values, 1991).

| Age Range | Men | Women |
| :---: | :---: | :---: |
| Years | BMR | BMR |
| $18-29$ | $15.1 \times$ weight $(\mathrm{kg})+692$ | $14.8 \times$ weight $(\mathrm{kg})+487$ |
| $30-59$ | $11.5 \times$ weight $(\mathrm{kg})+873$ | $8.3 \times$ weight $(\mathrm{kg})+846$ |
| $60+$ | $11.9 \times$ weight $(\mathrm{kg})+700$ | $9.2 \times$ weight $(\mathrm{kg})+687$ |

2. Physical Activity Level (PAL): Incorporate their PAL based on the gender and activity (WHO, 1985) level shown in the chart below. Do this by multiplying the patient's estimated BMR with the appropriate figure from the table below. Few patients are likely to have activity levels above inactive.

| Activity Level | This Means | Men | Women |
| :---: | :---: | :---: | :---: |
| Inactive | Assume sitting most of the day with less <br> than 2 hours on their feet | 1.4 | 1.4 |
| Light | Assume some daily exercise (at work or <br> tasks about the house or garden) with at <br> east 2 hours on their feet | 1.5 | 1.5 |
| Moderate | Assume 6 hours on their feet or regular <br> strenuous exercise | 1.78 | 1.64 |
| Heavy | Those in heavy labouring jobs or serious <br> athletes in training | 2.1 | 1.82 |

3. EER: Calculate the person's daily estimated energy requirement to maintain weight by multiplying BMR and PAL.
4. EER for weight loss: Subtract 600 calories from the above figure to estimate the person's energy requirement for modest weight loss.

## Chart 4 - Food Group Portions

The table below suggests the number of portions from the Eatwell Guide food groups to provide a healthy balanced diet to fit the patients' EER. This is a guide only and will help ensure:
a) nutritional adequacy provided by the 4 main food groups
b) tasty meals; a small amount of fat for preparing/serving foods
c) fatty and sugary foods such as desserts, cakes, biscuits, savoury snacks and sweets, and alcoholic drinks are included. Many people like to save up their daily extras over the week for the weekend or a special occasion.
Food Group Allocations Based on Daily Energy Prescription Together with Macronutrient Profile

|  | Portions from each of the main 4 food groups |  |  |  |  | Extras calories allowance | \% energy from the macronutrients |  |  | Protein (g)/day |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CHO | F\&V | D | Pro | F |  |  |  |  |  |
| Daily Energy Prescription | Approx. 80kcal/ portion | Approx 40kcal/ portion | Approx. 90kcal/ portion | Approx. 140kcal/ portion | Approx. 50kcal/ portion | Discretionary kcal for extras | \% energy from protein | \% energy from carbohydrate | $\begin{aligned} & \text { \% energy } \\ & \text { from } \\ & \text { fat } \end{aligned}$ | Average protein(g)/ day |
| 1200 | 5 | 5 | 3 | 2 | 1 | 0 | 23 | 54 | 23 | 72 |
| 1300 | 5 | 5 | 3 | 2 | 2 | 50 | 22 | 50 | 27 | 75 |
| 1400 | 5 | 5 | 3 | 2 | 2 | 150 | 23 | 53 | 24 | 82 |
| 1500 | 6 | 6 | 3 | 2 | 2 | 130 | 21 | 53 | 26 | 82 |
| 1600 | 6 | 6 | 3 | 2 | 3 | 180 | 21 | 53 | 26 | 82 |
| 1700 | 7 | 7 | 3 | 2 | 3 | 160 | 20 | 55 | 25 | 82 |
| 1800 | 8 | 7 | 3 | 2 | 3 | 180 | 20 | 54 | 25 | 90 |
| 1900 | 8 | 8 | 3 | 2 | 3 | 240 | 19 | 54 | 27 | 87 |
| 2000 | 8 | 8 | 3 | 3 | 3 | 200 | 22 | 49 | 29 | 109 |
| 2100 | 9 | 8 | 3 | 3 | 3 | 220 | 22 | 49 | 29 | 118 |
| 2200 | 9 | 9 | 3 | 3 | 3 | 280 | 22 | 50 | 28 | 118 |
| 2300 | 9 | 9 | 4 | 3 | 3 | 290 | 22 | 49 | 29 | 125 |
| 2400 | 10 | 9 | 4 | 3 | 4 | 260 | 21 | 50 | 29 | 122 |
| 2500 | 10 | 10 | 4 | 3 | 4 | 320 | 21 | 50 | 29 | 127 |
| 2600 | 11 | 10 | 4 | 3 | 4 | 340 | 21 | 51 | 28 | 133 |
| 2700 | 12 | 11 | 4 | 3 | 4 | 320 | 20 | 51 | 30 | 126 |
| 2800 | 13 | 11 | 4 | 3 | 4 | 340 | 19 | 52 | 28 | 136 |
| 2900 | 14 | 12 | 4 | 3 | 4 | 320 | 19 | 53 | 28 | 137 |
| 3000 | 15 | 12 | 4 | 3 | 4 | 340 | 19 | 53 | 28 | 137 |

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This information has been produced for Nutrition and Diet Resources UK (NDR-UK) by Registered Dietitians and other relevant health professionals. At the time of publication the information contained within the leaflet was, to the best of our knowledge, correct and up-to-date. Always consult a suitably qualified dietitian and/or your GP on health problems. NDR-UK cannot be held responsible for how clients/patients interpret and use the information within this resource. Visit www.ndr-uk.org for more information and to contact the team on the development and evidence supporting this resource.
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