



Metabolism, Calorie Target & Distribution



The number of calories you consume will determine your weight. The number of calories you burn is mostly fixed, so the number of calories you consume will have the biggest impact on your weight. Current treatments for excess weight—whether lifestyle and behavioral change, medications or surgery—focus on helping people who struggle with weight consume fewer calories to improve their health and quality of life.



Target for maintenance is the same as TEE



Target for weight loss is the same as RMR



KNOW YOUR NUMBERS

Date _____

RMR _____

Target for Maintenance

Target for Weight Loss

Metabolism – Calories Burned

Your **Total Energy Expenditure (TEE)** is the number of calories you burn in a 24-hour period. There are three main sources of energy expenditure. These include:

- 1 Resting Metabolic Rate (RMR)
- 2 Activity Thermogenesis
- 3 Thermic Effect of Food

Your **RMR** is the number of calories needed by your brain, organs, tissues, cells and body systems to sustain life at rest. It accounts for 70–75% of all the energy you burn in a day. Your RMR is largely determined by your weight and genetics. It [decreases with weight loss](#), an adaptation by the body in response to weight loss. It may increase slightly with increased muscle mass if you include weight training in your exercise program.

Activity Thermogenesis is estimated at 15–20% of TEE. It's the most variable component of energy expenditure between individuals and will depend on your personal levels of physical activity. Increasing levels of physical activity, however, will have little to no impact on TEE for most people. The body compensates for large energy expenditures by [conserving energy](#) in other ways in efforts to defend your weight. **The Thermic Effect of Food** is estimated at 10% of TEE. The types of foods you consume will have a [small](#) impact on TEE. Foods rich in protein and fiber—especially whole foods—cost more energy for the body to process compared to refined starches and sugars.

To lose weight, one must consume fewer calories than TEE.

Calculate an estimate of your own TEE and RME

Use one of these links to calculate your Total Energy Expenditure and Resting Metabolic Rate.

<https://www.mdapp.co/resting-metabolic-rate-rmr-calculator-36/>

<https://globalrph.com/medcalcs/resting-metabolic-rate-rmr/>

Your Calorie Targets

Based on your metabolic rate calculation, consider a calorie target of (*insert calculated Resting Metabolic Rate*) _____ Kcal per day to manage your physical hunger and promote a gradual weight loss. This target may be reassessed in the coming weeks and modified if necessary, based on your experience.



The number of calories you consume will determine your weight. The number of calories you burn is mostly fixed, so the quantity of calories you consume will have the biggest impact on your weight. Current treatments for excess weight—whether lifestyle and behavioural changes, medications or surgery—are effective by helping people who struggle with weight consume fewer calories in a sustainable way.

Weight Loss Expectations

Based on a calculation of your basal metabolic rate, you have recently learned about

- 1 the number of calories you burn at rest (RMR)
- 2 the estimated number of calories you need to maintain your weight (TEE)
- 3 and a recommended calorie target for weight loss (daily calorie target)

Weight loss happens if your daily calorie intake is lower than your TEE. The general rule for weight loss used to be that a 500 Kcal daily deficit leads to one pound of fat loss per week. This is because a pound of fat is roughly 3500 Kcal (500 Kcal deficit x 7 days = 3500 Kcal). In reality, the rate at which individuals lose weight on a specific calorie deficit varies greatly. As you learned in earlier modules, the body recognizes weight loss and in response appetite is increased and metabolic rate is lowered in an effort to favour weight regain. A few weeks of tracking your intake and monitoring your weight will provide more information about your own individual rate of weight loss.

Calorie Distribution

Once you have a calorie target in mind, the next step is to have a plan for how to distribute those calories over meals and snacks during the day. Although there is always flexibility in how to do this, there are advantages to having a plan to follow for most days of the week, such as:



Establishing a routine to help form healthy eating habits



Facilitating meal planning by having meal/snack calorie targets



Keeping your physical hunger (and Ghrelin) in check



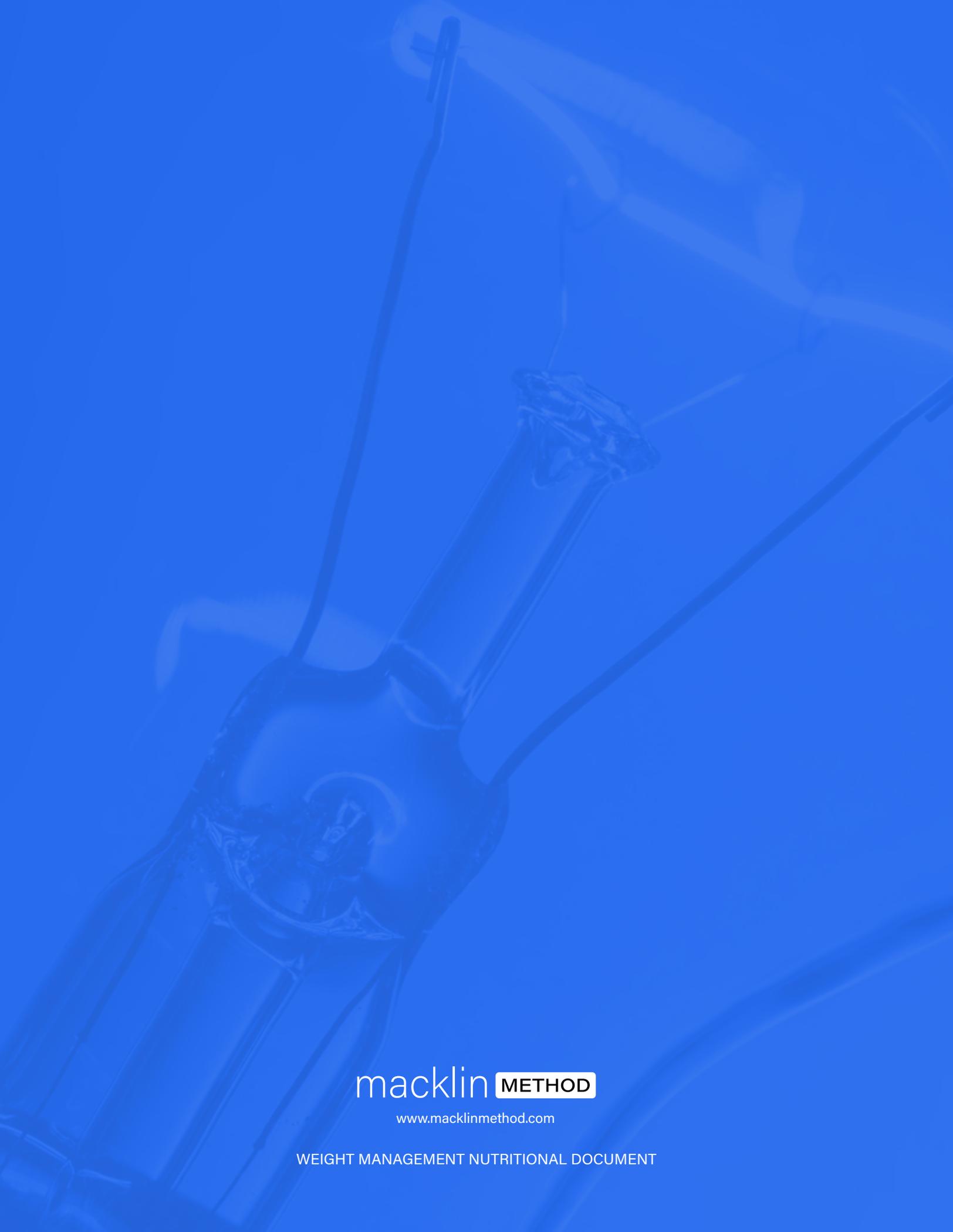
Fueling your body at regular intervals throughout the day for sustained energy



Spacing out your protein intake, which is ideal for minimizing hunger and maintaining muscle mass

Distribution of Calorie Target for Weight Loss

MEAL OR SNACK	TIME	CALORIES
Breakfast		
Morning Snack		
Lunch		
Afternoon Snack		
Dinner		
Evening Snack		



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WEIGHT MANAGEMENT NUTRITIONAL DOCUMENT