

## **Chapter 1: Understanding Your Body and Energy**

### **1. Introduction: The Foundation of Every Transformation**

Before you change how you eat or how you train, you must first understand how your body works.

Most people who fail to lose weight don't fail because they're lazy — they fail because they're lost. They try different diets, skip meals, or push themselves too hard at the gym without truly understanding what's happening inside their body.

Your body is not your enemy.

It's a complex, intelligent system that simply responds to what you feed it and how you treat it.

If you understand its language — energy, hormones, rest, and balance — then you can finally stop fighting against yourself and start working with your body.

This chapter is about learning that language.

By the end of it, you'll understand why calories matter, how your metabolism actually works, and how to use that knowledge to take control of your weight in a way that feels natural and sustainable.

When I first decided to lose weight and start training, I didn't begin with research or learning. Instead, I told myself what many beginners believe:

"If I just eat less and move more, I'll lose weight for sure."

But I was wrong.

Because I had no real understanding of how the body works, I started recklessly — skipping breakfast or sometimes entire meals. I would cut my portions to an extreme, thinking that less food meant faster progress.

What really happened was the opposite: my body stayed hungry, my focus dropped, my energy disappeared, and my motivation faded. I felt tired, weak, and frustrated.

That was my first big mistake — believing that less food always equals better results.

I had to spend time, effort, and even part of my health to learn this lesson the hard way.

You, however, don't need to repeat my mistakes — you can simply read these words and start smarter.

### **2. Energy and Calories – What They Really Mean**

Let's start with the word calorie.

It's one of the most misunderstood words in health and fitness.

A calorie is not your enemy — it's simply a unit of energy. Just like kilometers measure distance, and liters measure water, calories measure the amount of energy your body gets from food.

Your body uses calories every second of the day:

To breathe,

To keep your heart beating,

To digest food,

To move your muscles,

Even to think.

When you eat food, your body takes in calories — that's energy in.

When you move or exist, your body burns calories — that's energy out.

Your weight changes depending on the relationship between those two numbers.

If you eat more calories than you burn → you gain weight.

If you eat less calories than you burn → you lose weight.

If both are equal → your weight stays the same.

This is called the Energy Balance Equation — the most fundamental rule of weight control.

But don't let the simplicity fool you.

While this equation is true, your body's metabolism, hormones, and lifestyle all influence how efficiently those calories are used. That's why two people can eat the same thing but lose weight at different speeds.

### 3. Understanding Metabolism: Your Internal Engine

Think of your metabolism as the engine of a car.

It's what keeps your body running, even when you're sitting still.

Your metabolism determines how many calories your body burns just to stay alive — this is called your Basal Metabolic Rate (BMR).

Your BMR accounts for about 60–70% of the calories you burn each day, and it includes basic functions like:

Breathing

Blood circulation

Cell repair

Brain activity

Then, you have other energy outputs:

Physical Activity (20–30%) – all your movement, exercise, walking, etc.

Food Digestion (TEF) (about 10%) – the calories your body burns just to process food.

All together, this is called your Total Daily Energy Expenditure (TDEE).

In short:

$TDEE = BMR + Activity + Digestion$

Once you know your TDEE, you can estimate how much to eat depending on your goal:

To lose fat → eat below TDEE

To maintain → eat around TDEE

To gain muscle → eat above TDEE

The first time I learned about TDEE, I felt genuinely foolish for wasting so much time and effort, only to get nothing in return.

I was truly shocked to realize that I had been consuming far too few calories compared to the energy my body actually needed to maintain itself each day.

On top of that, my reckless workout schedule only worsened the damage, further harming my already unhealthy body.

### 4. The Three Key Nutrients: Protein, Carbs, and Fat

Calories are the “energy,” but where they come from matters.

Food isn't just fuel — it's also the building material of your body.

Protein (4 kcal per gram)

Builds and repairs muscle tissue.

Keeps you full longer.

Increases metabolism slightly because it takes more energy to digest.

→ Aim for 1.6–2.2 grams per kg of body weight daily.

Carbohydrates (4 kcal per gram)

The body's main energy source.

Fuels your workouts and brain function.

Choose complex carbs: oats, brown rice, sweet potatoes, fruits, vegetables.

Fats (9 kcal per gram)

Support hormone balance.

Aid vitamin absorption.

Found in nuts, avocados, olive oil, fish.

→ Don't fear fat — just choose the right kinds.

Balanced nutrition is not about cutting one thing out.  
It's about understanding how each nutrient works and creating a combination that fits your body and goals.