



Calorie Deficit: The Real Science of Fat Loss

How to use a calorie deficit and the right exercise to lose fat, keep muscle and stay consistent

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Fat loss starts with one rule

Every fat-loss result you have ever seen comes down to one principle: **a calorie deficit**. When your body uses more energy than you eat, it pulls the difference from stored fat. Diets, detox teas and "fat-burning" workouts only work when they create this gap.

The good news: you do not need to starve or live in the gym. You need the right deficit, enough protein, and training that protects your muscle. This guide shows you exactly how.

What is a calorie deficit?

A calorie deficit means **calories in < calories out**. Your daily burn is called TDEE (Total Daily Energy Expenditure), and it has four parts:

Component	What it is	Share of daily burn
BMR	Energy to keep you alive at rest (heart, brain, breathing)	60-70%
NEAT	Walking, standing, chores, fidgeting	15-30% (varies most)
TEF	Energy used to digest food	~10%
Exercise	Planned workouts	5-10%

Roughly 7,700 kcal equals 1 kg of body fat. A steady 500 kcal daily deficit therefore works out to about 0.5 kg of fat per week. Treat this as a guide, not a guarantee: water, hormones and adaptation make real progress less linear.

How to calculate your deficit

Step 1: Find your BMR (Mifflin-St Jeor equation, weight in kg, height in cm, age in years):

- Men: $BMR = 10 \times \text{weight} + 6.25 \times \text{height} - 5 \times \text{age} + 5$
- Women: $BMR = 10 \times \text{weight} + 6.25 \times \text{height} - 5 \times \text{age} - 161$

Step 2: Multiply by your activity level to get TDEE:

Activity level	Multiplier
Desk job, little exercise	1.2
Light exercise 1-3 days/week	1.375
Moderate exercise 3-5 days/week	1.55
Hard exercise 6-7 days/week	1.725
Physical job + daily training	1.9

Step 3: Subtract 300-500 kcal. Aim to lose 0.5-1% of body weight per week. Faster than that usually costs muscle, energy and consistency.

Worked example: Rahul, 30 years, 80 kg, 175 cm, trains 4 days a week.

- $BMR = 800 + 1,094 - 150 + 5 = \text{about } 1,750 \text{ kcal}$
- $TDEE = 1,750 \times 1.55 = \text{about } 2,700 \text{ kcal}$
- Fat-loss target = $2,700 - 500 = \text{about } 2,200 \text{ kcal per day}$
- Expected result: about 0.4-0.5 kg per week

Avoid going below roughly 1,200 kcal (women) or 1,500 kcal (men) without guidance from a doctor or qualified coach.

Where exercise fits in

Exercise does not replace the deficit, but it decides **what kind of weight you lose**. Diet alone can strip away muscle along with fat. Training tells your body to keep the muscle and burn the fat.

- **Strength training (3-4 days/week):** The most important workout in a deficit. It preserves muscle, keeps your metabolism higher and gives you a toned shape instead of a "skinny-fat" look. Focus on squats, deadlifts, presses, rows and lunges, and try to keep your strength up.
- **Cardio (150-300 minutes/week):** Brisk walking, cycling, swimming or 1-2 short HIIT sessions add to your burn and improve heart health. Keep it moderate so it does not hurt your strength sessions.
- **NEAT (8,000-10,000 steps/day):** Daily movement often burns more than your workout. Take stairs, walk during calls, and stay active after meals.

Know the numbers: a 30-minute brisk walk burns roughly 120-180 kcal, while one samosa and a sweet chai can add 350+ kcal. You cannot out-train a poor diet. Use food to create the deficit and exercise to shape the result.

Protein and smart food choices

Eat **1.6-2.2 g of protein per kg of body weight** daily. Protein protects muscle, keeps you full longer and uses more energy to digest. For an 80 kg person, that is roughly 130-175 g per day.

Easy Indian protein sources:

Food	Serving	Protein (approx.)
Chicken breast	100 g cooked	31 g
Soya chunks	50 g dry	26 g
Paneer	100 g	18 g
Greek yogurt / hung curd	200 g	15-20 g
Whole eggs	2 eggs	12 g
Dal / chana / rajma	1 katori cooked	7-9 g

Fill half your plate with vegetables, a quarter with protein, and a quarter with roti, rice or millets. Watch hidden calories: one tablespoon of ghee or oil is about 120 kcal, and sweets, namkeen, juices and sugary drinks add up fast.

Common mistakes and plateaus

- **Guessing instead of tracking:** Log your food for 2-3 weeks to learn real portions. Most people underestimate oil and snacks.
- **Weekend overeating:** Two heavy days can cancel five good days of deficit.
- **Trusting machine calories:** Treadmills and watches often overestimate burn. Do not "eat back" exercise calories.
- **Crash dieting:** Very large deficits lead to muscle loss, fatigue, cravings and rebound weight gain.
- **Skipping strength training:** You lose weight but look softer, not leaner.
- **Panicking at the scale:** Daily weight swings of 0.5-1.5 kg are normal (water, salt, carbs). Track the weekly average, waist size and photos.
- **Poor sleep:** Under 7 hours increases hunger hormones. Aim for 7-9 hours.

Hit a plateau? If your weekly average does not move for 2-3 weeks, first check your tracking. Then recalculate your TDEE (it drops as you get lighter), add 2,000 more daily steps, or reduce intake by another 100-200 kcal. After 8-12 weeks of dieting, 1-2 weeks at maintenance calories can restore energy and motivation.

Sample weekly plan

Day	Training	Daily target
Monday	Strength: upper body	8,000+ steps
Tuesday	Cardio: 30-40 min brisk walk or cycle	10,000 steps
Wednesday	Strength: lower body	8,000+ steps
Thursday	Active recovery: yoga or mobility	10,000 steps
Friday	Strength: full body	8,000+ steps
Saturday	HIIT 20 min or a sport	8,000+ steps
Sunday	Rest + relaxed walk	6,000+ steps

Every day: stay in your calorie target, hit your protein, drink 3+ litres of water and sleep 7-9 hours.

The formula is simple: a moderate deficit, high protein, strength training and daily movement, repeated consistently. Find a gym or a certified personal trainer near you on **FitX7 (fitx7.com)** and get expert support to build your plan, track progress and stay accountable. Fitness 24/7. Anytime. Anywhere.

This article is for general education. If you have a medical condition, are pregnant, or take regular medication, consult a doctor before changing your diet or exercise routine.