The Different TDEE Formulas

The 3 Formulas

The Harris-Benedict formula was invented first (1919 and revised in 1984)

The Mifflin-St Jeor formula was introduced in 1990 and is more accurate

The Katch-McArdle formula ➜ requires body fat percentage, which most people don’t know

➜ Unless you know your body fat percentage, use the Mifflin-St Jeor formula

How They Work

Step 1: Calculate Basal Metabolic Rate (BMR)

Step 2: Add a certain number of calories on top, depending on exercise

BMR → energy needed while resting and to maintain vital organs
(70% of total calories burned every day)

20% of calories for physical activity

10% for digestion of food (aka thermogenesis)

Harris-Benedict Equation

BMR:

For men: BMR = 66.5 + (13.75 x weight in kg) + (5.003 x height in cm) – (6.775 x age in years)

For women: BMR = 655.1 + (9.563 x weight in kg) + (1.85 x height in cm) – (4.676 x age in years)

Mifflin-St Jeor Equation

BMR:

For men: BMR = 10 x weight (kg) + 6.25 x height (cm) – 5 x age (years) + 5

For women: BMR = 10 x weight (kg) + 6.25 x height (cm) – 5 x age (years) – 161

Katch-McArdle Equation

For Men & Women:

BMR = 21.6 * Fat Free Mass + 370

Where Fat Free Mass = Weight – (Body Fat Percentage * Weight)

Activity Multiplier

Sedentary (little or no exercise): TDEE = BMR x 1.2

Lightly active (exercise 1-3 days/week): TDEE = BMR x 1.375

Moderately active (exercise 3-5 days/week): TDEE = BMR x 1.55

Very active (exercise 6-7 days a week): TDEE = BMR x 1.725

Bonus: How To Quickly Estimate TDEE

For active men: multiply your weight in pounds by 14 or 15
For inactive men: multiply your weight in pounds by 13

For active women: multiply your weight in pounds by 11 or 12
For inactive women: multiply your weight in pounds by 10

Example: active man weighs 180 pounds
➔ 180 x 14 and 180 x 15 = TDEE between 2520 and 2700 calories

The Factors That Influence Your TDEE

4 Most Important Variables

BMR: Basal Metabolic Rate (70% of total calories burned per day)

EAT: Exercise Activity Thermogenesis (5% of total calories burned per day)

NEAT: Non Exercise Activity Thermogenesis (10 to 15% of total calories burned per day)

TEF: Thermic Effect of Food (10% of total calories burned per day)

How To Optimize EAT

Most people overestimate how many calories they burn during their workouts

(e.g. 30 minutes of jogging burn only 200 - 300 calories)

➜ Exercise should not be your primary tool for reaching a calorie deficit

➜ Find something you enjoy and can stick to for the long term

(I recommend 3x/week resistance training & 1-2x/week cardio)

How To Optimize NEAT

Stick to your daily routine even when dieting

➜ avoid unconsciously reducing your physical activity

Optional: Add more physical activity to your daily life

How To Optimize TEF

TEF makes up 10% of calories burned ➜ but it differs between macronutrients

Protein: 20% - 30%

Carbs: 5% - 15%

Dietary fat: 5% - 10%

➜ But don’t just eat protein