1. ***BMR***

- **Mifflin-St Jeor Equation**: BMR (kcal / day) = 10 * weight (kg) + 6.25 * height (cm) – 5 * age (y) + s (kcal / day), where s is +5 for males and -161 for females.

2. ***Maintenance calories***

BMR * activity_level_const

- Sedentary (little to no exercise) | 1.2
- Light exercise (1-3 days of exercise per week) | 1.35
- Moderate exercise (4-5 days of exercise per week) | 1.5
- Intense exercise (6-7 days of exercise per week) | 1.6
- Hard exercise (marathon or twice daily training sessions) | 1.75

3. ***Fat Loss or Muscle Gain (Decide)***

1 lb = 3500 kcal

1 kg = 7700 kcal

For eg: Maint Cal = 2100 kcal/day

Calorie Intake Difference (1kg per week) = 1100 kcal/day

Calorie Intake Difference (1kg per month) = 256.67

Difference = Calorie(7700) * LOSSorGAINweight / days

- Weigth Gain / Muscle Gain --> Daily Calorie Intake > Maintenance Calories
- Fat / Weight Loss --> Daily Calorie Intake < Maintenance Calories

Decide how much calories are to be taken

4. ***LEAN BODY MASS and BODY FAT PERCENTAGE (USED IN APP)*** :

Source : https://www.calculator.net/lean-body-mass-calculator.html

The Boer Formula:

For males:

eLBM = 0.407W + 0.267H - 19.2

For females:

eLBM = 0.252W + 0.473H - 48.3

Body Fat Formula (per day) (NOT USED)

Source for Body Fat Perc = https://www.gaiam.com/blogs/discover/how-to-calculate-your-ideal-body-fat-percentage, https://www.calculator.net/body-fat-calculator.html

i. BMI = weight (kg) / [height (m)]2
ii. Women: (1.20 x BMI) + (0.23 x Age) - 5.4 = Body Fat Percentage
iii. Men: (1.20 x BMI) + (0.23 x Age) - 16.2 = Body Fat Percentage
iv. Lean Body Weight = Overall Weight- Fat Percentage

5. ***MACROS***

- Proteins

Source (USED): https://www.verywellfit.com/how-to-calculate-how-much-protein-you-need-3955709 , Confirmation: https://mennohenselmans.com/the-myth-of-1glb-optimal-protein-intake-for-bodybuilders/

Sedentary (generally physically inactive): multiply by 0.5

Light activity (includes walking or gardening): multiply by 0.6

Moderate (30 minutes of moderate activity, thrice weekly): multiply by 0.7

Active (one hour of exercise, five times weekly): multiply by 0.8

Very active (10 to 20 hours of exercise weekly): multiply by 0.9

Athlete (over 20 hours of exercise weekly): multiply by 1.0

SOURCE: VRFIT Video

- PROTEIN REQUIREMENT: Muscle Building / Lean Body: 1g per pound of lean body weight (minimum)

- no activity : weight(kgs)*0.8, moderate activity : weight(kgs)*0.8
- Calories: 4cal for 1g of protein

- Fats

SOURCE: VRFIT Video

- REQUIREMENT: 0.4g per pound of lean body weight (minimum)
- 9cal for 1g of fat

- Carbohydrates

SOURCE: VRFIT Video

- REQUIREMENT: Remaining calories from the pre determined calories will be fulfilled by carbohydrated. (Remaining Calories/4)g carbohydrates required.
- 4cal for 1g of carbohydrates

ADDITIONAL SOURCE FOR MACRO CALCULATION CONSTANTS :
https://www.bodybuilding.com/fun/randy46.htm

ICONS ATTRIBUTES

Fat: Icons made by Freepik from www.flaticon.com