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>

1. BMI = weight (kg) / [height (m)]2
2. Women: (1.20 x BMI) + (0.23 x Age) - 5.4 = Body Fat Percentage
3. Men: (1.20 x BMI) + (0.23 x Age) - 16.2 = Body Fat Percentage
4. 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**

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