



Metabolism & Energy

เพศชาย

น้ำหนัก 92.4 kg

ส่วนสูง 174 cm

อายุ 19 ปี

Overall energy

$$\begin{aligned}\text{Basal Metabolism Rate} &= 66 + (13.7 \times \text{Weight (kg)}) + (5 \times \text{Height (cm)}) - (6.8 \times \text{Age (yr)}) \\ &= 66 + (13.7 \times 92.4) + (5 \times 174) - (6.8 \times 19) \\ &= 2072.68\end{aligned}$$

$$\text{Physical Activity} = 1.375$$

$$\text{Energy needed} = 2072.68 \times 1.375 = 2849.935$$

$$\text{Specific Dynamic Action} = 2849.935 \times 10\% = 284.994$$

$$\text{Total energy needed} = 2849.935 + 284.994 = 3134.929$$

$$\text{CHO-containing food 55\%} = 3134.929 \times 0.55 = 1724.21$$

$$\text{Food-fat 30\%} = 3134.929 \times 0.30 = 940.48$$

$$\text{Protein 15\%} = 3134.929 \times 0.15 = 470.24$$

Energy values of foods

$$\text{CHO 4 kcal/g} \quad \text{CHO-containing food} = 1724.21 / 4 = 431.05 \text{ g}$$

$$\text{Fat 9 kcal/g} \quad \text{Food-fat} = 940.48 / 9 = 104.50 \text{ g}$$

$$\text{Protein 4 kcal/g} \quad \text{Protein} = 470.24 / 4 = 117.56 \text{ g}$$