CALCULATING ONE'S FOOD NEED

1 pound person needs 20 calories from his food per day. 1 pound is equal to 0.454kg, as such 0.454kg person needs 20 calories from his food per day. Young adult have weight ranging from 55kg – 65kg; therefore an average young adult have an average weight of 60kg.

60kg person would need x calories:

$$xcal = \frac{60 \times 20}{0.454} = 2643\ cal\ per\ day$$

Using fat to calculate

0.065kg of fat contains 2000 calories, therefore how much kilograms of fat would yield 2,643 calories per day.

$$x = \frac{2643 \times 0.065}{2000} = 0.086kg$$

Using the eating right food pyramid

Carbohydrate : vegetable and fruits : proteins : fat = 4:3:2:1

$4x: 3x: 2x: 1x$

$4 \times 0.086 : 3 \times 0.086 : 2 \times 0.086 : 1 \times 0.086$

$0.344 : 0.258 : 0.176 : 0.086$

Total kg of food that would give 2643 calorie per day is:

$0.344 + 0.258 + 0.176 + 0.086 = 0.864kg$

$\simeq$ 0.9kg or 900g of food per day.

If one eats three times daily, in each meal he would have to eat

$$\frac{900}{3} = 300g\ of\ food$$

Per meal what percentages of fat, proteins, vegetables and fruits, and carbohydrate in kilograms should be?

$300 = 4 : 3 : 2 : 1$

$4 + 3 + 2 + 1 = 10$

$\%fat = \frac{1}{10} \times 300 = 30g$

The percentages to consume per meal is fat, 30g; protein, 60g; vegetables and fruits, 90g; and carbohydrate, 120g.