

## Food Value of Egg

Egg is an ovulated reproductive cell which is naturally completed in the female genital organ of birds and obtained after laying. It is the largest cell of the nature and widely used as delicious nutritive food of human.

Egg is the most nearly a balance food of all the foods available to man. It contains all essential nutrients that we need for growth, maintenance, lactation and reproduction. The edible portion of the egg is made up of the yolk and the albumen. A hen's egg weighing 57g gives us about 51g of food materials made up of by 18g yolk and 33g albumen. The nutrients include proteins, fats, vitamins and minerals.

Gross & chemical composition of whole egg in percent				
	Whole Egg	Albumen	Yolk	Shell
	100 %	58%	31%	11%
Water%	65.5	88.0	48	-
Protein%	11.8	11.0	17.5	-
Fat%	11.0	0.2	32.5	-
Ash%	11.7	0.8	2.0	96.0
Total	100	100	100	100

**Protein:** The yolk and albumen contain about 17.5 % and 11.0 % protein respectively. An egg of 57g contains 6.7g protein (3.64g in albumen and 3.15g in yolk). It is highly digestible quality protein. The biological value of egg protein is 95 as compared to 85 for milk and 70 for meat protein. It is a complete protein, because it contains all essential amino acids required to maintain, promote, growth and health.

**Gross & chemical composition of an egg of 57g.**

	Whole Egg	Albumen	Yolk	Shell	Energy (Calories)
Water	37.50	29.04	8.64	-	
Protein	6.70	3.64	3.15	-	
Fat	6.20	0.06	5.85	-	
Ash	6.60	0.26	0.36	5.0	
Total	57g	33g	18g	6g	90

**Fats:** Egg yolk contains 32.5% fat & only 0.2% in albumen. An egg of 57g contains 6.2g fat. Egg fat is very well-emulsified unsaturated fats which are easily digestible.

<b>Chemical composition of 100g edible egg.</b>						
	<b>Water %</b>	<b>Protein %</b>	<b>Fat %</b>	<b>CHO %</b>	<b>Ash %</b>	<b>Energy (cal)</b>
<b>Chicken</b>	<b>73.7</b>	<b>12.9</b>	<b>11.5</b>	<b>0.9</b>	<b>1.0</b>	<b>163</b>
<b>Duck</b>	<b>70.4</b>	<b>13.3</b>	<b>14.5</b>	<b>0.7</b>	<b>1.1</b>	<b>191</b>

**Carbohydrate:** As egg is an animal products so its carbohydrate content is below 1%.

**Energy:** An egg of 57g supplies 90 Cal energy.

**Vitamins:** Egg contains Vit-ADEK and all members of B-complex including vit-B<sub>12</sub> which are stored in the yolk. Egg yolk is a potential source of vit-A varies from 200 to 1000 I.U. Its component is present in yolk as a carotenoid yellow pigments.

**Minerals:** The egg contains a large number of mineral elements. It contains 116 mg phosphorous, iron-2 mg, calcium in edible portion is 2g, others are Na, K, Mg, S, Cl, Zn, Cu, Mn, etc. are also present.

A man recommended 3000 calories energy, 70g protein, 50g fat and 570g carbohydrate per day. A man gets 90 calories energy, 6.7g protein and 6.2g fat from an egg.

#### **Food Value of Chicken Meat**

Nutritionally, people eat poultry meat for its high quality protein and its low fat content. Chicken meat is higher in protein and lower in fat than beef and other red meats. Human body needs protein for its cell structure and repair. Poultry meat is a great source of protein with all essential amino acids. Poultry meat is very nutritious food for all ages of peoples. Poultry meat contains less fat than animal

#### **Comparison of chicken meat with beef**

<b>Chemical composition of meat</b>				
<b>Meat</b>	<b>Water %</b>	<b>Protein %</b>	<b>Fat %</b>	<b>Minerals %</b>
<b>Chicken meat</b>	<b>76</b>	<b>19</b>	<b>0.6</b>	<b>0.8</b>
<b>Beef</b>	<b>57</b>	<b>17</b>	<b>1-2</b>	<b>0.8</b>