



Facilitating Dietary Intake using Pictorial Portion Sizes of Indian Recipes

KEYWORDS

Portion size, Nutrient Calculation, Digital Medium

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ABSTRACT *The growing rate of metabolic diseases poses a major challenge to the health and nutrition status of the general public. Being linked to faulty lifestyle and eating pattern, these disorders can be checked at an early stage by imposing self corrective measures. While talking of such measures the first and foremost thing which comes to the mind is to make the people aware of healthy eating practices. In today's times when people have a dearth of time and their hectic job schedules at Multi National Companies leads them to binge on unhealthy junk food. All these habits manifest in the form of overweight, obesity, diabetes, high blood pressure at a very early age. The general public is unaware of the portion size that they should eat. To facilitate dietary intake of the general public, a pictorial method of estimating portion size would be helpful as visual medium is more effective than any other medium. In the present study, 50 common Indian recipes were standardised for one portion size, their photographs were captured via a digital medium and further nutrient calculation was carried out for all these recipes. This will be helpful for the people at large to check the portion sizes that they are currently eating and to improve on their eating habits by gaining information on correct portion sizes.*

Introduction :

Obesity is an important modifiable risk factor for type 2 diabetes, cardiovascular diseases risk and many other associated metabolic diseases. The major cause of obesity being sedentary lifestyle and faulty eating behaviour. Lifestyle modification and changes in eating pattern can largely reduce obesity. Dietary intake provides valuable insights for mounting intervention programs for the prevention of chronic diseases. (Hong & Lee et al.,2008)

The general public today is quite aware but in the absence of correct knowledge on portion sizes, they tend to overeat. Estimating correct portion size is a major difficulty while assessing Dietary intake. Large portion sized snacks, sandwiches, restaurant meals and beverages appear to result in higher total food intake.(Beverly,2010)

It is believed that visual perception is better perceived than other medium. Hence a photographic portion size estimate to help the general public gain information about correct portion size is urgently needed.

The photograph method is particularly attractive because for any food photographs can be made of one or several different portions.(Lucas et.al.,1995).

The photographic method of diet evaluation was first described by Elawood and Bird (1983).In this method a hand held personal digital camera was used to capture the photographs.

Rationale of the study :

A pictorial portion size estimation guide is not available for Indian Foods at present. Pictorial portion sizes would help the people to check what they are currently eating and to improve their eating habits by gaining information on correct portion sizes.

Visual medium is more powerful than any other medium,

hence such real life pictures will help the people to use these portion sizes in their daily life.

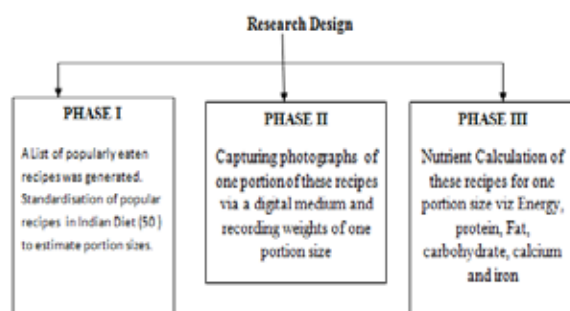
Objectives of the study :

Broad Objective : To help the general public, a pictorial method of portion size estimation was developed. This would further help Dieticians and research scholars in taking dietary intake.

Specific Objectives:

1. Standardization of one portion size of 50 recipes, popular in Indian Cuisine.
2. Capturing photographs of these 50 recipes via a digital medium and recording the weight of one serving.
3. Nutrient Calculations of all these 50 recipes for Energy, Protein, Fat , Carbohydrate , Calcium and Iron content.

Materials and Methods:



Methodology :

1. A list of popular food items in Indian Diet was generated.

Table 1: List of Recipes standardized for one portion size:

Cereals	Pulses	Vegetables	Beverages	Non Veg	Snacks	Salads
1.Roti 2.Aloo Paratha 3.Plain Poori 4.Poha 5.Upma 6.Vegetable Chowmein 7.Plain Rice 8.Pulao	1.Moong dal 2.Arhar Dal 3.Chana Dal 4.Rajma 5.Chole 6.Besan Kadhi with Pakoda 7.Masoor dal 8.Sambhar	1.Mix Veg 2.Palak Paneer 3.Shahi Paneer 4.Peapotato curry 5.Pumpkin Veg 6.Brinjal Bharta 7.Ladyfinger veg 8.Sarso ka saag 9.Aloomethi	1.Tea 2.HotCoffee 3.Ice tea 4.Lassi (sweet) 5.Cold Coffee with icecream	1.Chicken Biryani 2.Chicken Burger 3.Fish Curry 4.Tandoori Chicken 5.Shami Kabab	1.Potato Pakoda 2.Potato samosa 3.Spring roll 4.Burger 5.Pizza 6.Idli 7.Dosa 8.Uttapam 9.Dhokla 10.Pani Batasha 11.Aloo tikki 12.Momos 13.Tomato and cheese sandwich	1.Tossed Green Salad 2.Mix pulse and veg salad

2. One portion of all these recipes were standardized using Basic Food Preparation- Fourth Edition, Usha Raina, Sushma Kashyap et al,2005.
3. Photographs of One portion were captured on a digital medium.
4. Weight of one portion was further recorded.
5. Nutritive value (i.e energy, protein, fat, carbohydrate, calcium, iron) was calculated for one portion size.
6. Photographs were further edited and the Ingredients, Nutritive value and portion size along with cooked weight was mentioned on the photographs.

Result and discussion



Plain Poori

Ingredients:
Wheat flour-25 gm
Maida-25 gm
Oil-15ml

Nutritive Value:
Energy-392 kJol
Protein-9.68 gm
Fat-13.6 gm
Carbs-55.52 gm
Calcium-39.4mg
Iron-3.92mg

Portion size - 4 poori
Cooked Weight- 60 gm



Poha

Ingredients:
Rice flakes- 25 g
Groundnut-5 gm
Tomato- 25 gm
Potato-25 gm
Onion- 25 gm
Peas-20 gm
Oil-5 gm

Nutritive Value:
Energy- 202 kJol
Protein- 4.9 gm
Fat- 9.3 gm
Carbs- 24.7 gm
Calcium- 21mg
Iron- 4.6mg

Portion size - 1 quarter plate
Cooked Weight- 115 gm



Upma

Ingredients:
Soya granules- 25 gm
Caprusiine- 25 gm
Tomato- 30 gm
Carrot- 20 gm
Onion- 25 gm
Oil- 5 gm

Nutritive Value:
Energy- 192 kJol
Protein- 4 gm
Fat- 9.7 gm
Carbs- 21.7 gm
Fibre- 1.3 gm
Calcium- 2.7mg
Iron- 0.9mg

Portion size - 1 quarter plate
Cooked Weight- 173 gm



Veg Chowmein

Ingredients:
Noodles- 30 gm
Spring onion- 25 gm
Caprusiine- 30 gm
Cabbage- 30 gm
Carrot- 10 gm
Oil- 15 gm

Nutritive Value:
Energy- 412 kJol
Protein- 10.16 gm
Fat- 16.91 gm
Carbs- 55.13 gm
Calcium- 102.33 mg
Iron- 3.70 mg

Portion size - 1 plate
Cooked Weight- 210 gm



Arhar Dal

Ingredients:
Raw arhar dal-25 gm

Nutritive Value:
Energy- 105 kJol
Protein- 7.7 gm
Fat- 1.2 gm
Carbs- 16.7 gm
Fibre- 2.6 gm
Calcium- 38 mg
Iron- 1.4 mg

Portion size - 1 bowl
Cooked Weight- 150 gm



Moong Daal

Ingredients:
Raw moong dal-25 gm

Nutritive Value:
Energy- 104 kJol
Protein- 7.3 gm
Fat- 0.4 gm
Carbs- 17.9 gm
Fibre- 2.6 gm
Calcium- 23 mg
Iron- 1.2 mg

Portion size - 1 bowl
Cooked Weight- 150 gm



Masoor Daal Whole

Ingredients:
Masoor- 25 gm
Tomato- 25 gm
Onion- 25 gm

Nutritive Value:
Energy- 127 kJol
Protein- 7.9 gm
Fat- 0.2 gm
Carbs- 25.3 gm
Fibre- 2.4 gm
Calcium- 39 mg
Iron- 3.2mg

Portion size - 1 bowl
Cooked Weight- 180 gm



Chana Daal

Ingredients:
Raw chana dal-25 gm

Nutritive Value:
Energy- 118 kJol
Protein- 6.3 gm
Fat- 1.7 gm
Carbs- 19.1 gm
Fibre- 3.4 gm
Calcium- 27 mg
Iron- 1.8 mg

Portion size - 1 bowl
Cooked Weight- 145 gm



Rajma

Ingredients:
 Rajma- 25 gm (wt after soaking overnight) 30 gm)
 Tomato 30 gm
 Onion 30 gm
 Oil 10 gm
 Cori. 1 t



Nutritive Value:
 Energy 268 kJal
 Protein 10.5 gm
 Fat 11 gm
 Carbs 31.5 gm
 Fibre 3.7 gm
 Calcium 162 mg
 Iron 2.6 mg

Portion size - 1 bowl
 Cooked Weight- 120 gm

Chole

Ingredients:
 Chole- 25 gm (wt after soaking overnight) 30 gm)
 Tomato 30 gm
 Onion 25 gm
 Oil 10 gm



Nutritive Value:
 Energy 273 kJal
 Protein 6.7 gm
 Fat 12.6 gm
 Carbs 31.9 gm
 Fibre 6.3 gm
 Calcium 139 mg
 Iron 2.4 mg

Portion size - 1 bowl
 Cooked Weight- 125 gm

Besan Kadhi with Pakora

Ingredients:
 Bean 35 gm (20 gm for kadhi and 15 gm for pakodas)
 Cori. 80 gm
 Oil 10 gm



Nutritive Value:
 Energy 228 kJal
 Protein 8.9 gm
 Fat 10.2 gm
 Carbs 24.1 gm
 Fibre 3.7 gm
 Calcium 140 mg
 Iron 2.2 mg

Portion size - 1 bowl
 Cooked Weight- 240 gm

Sambhar

Ingredients:
 Arhar dal 20 gm
 Cabbage 10 gm
 Onion 10 gm
 Brinjal 10 gm
 Tomato 10 gm
 Turmeric 5 gm
 Oil 6 gm



Nutritive Value:
 Energy 149 kJal
 Protein 5.6 gm
 Fat 6 gm
 Carbs 18.4 gm
 Fibre 1.2 gm
 Calcium 43 mg
 Iron 1.7 mg

Portion size - 1 bowl
 Cooked Weight- 225 gm

Mix Veg

Ingredients:
 Cauliflower 25 gm
 Cabbage 25 gm
 Tomato 30 gm
 Onion 25 gm
 Capsicum 25 gm
 Carrot 20 gm
 Peas 10 gm
 Oil 1 t



Nutritive Value:
 Energy 119.9 kJal
 Protein 2.79 gm
 Fat 7.3 gm
 Carbs 10.57 gm
 Fibre 4.31 gm
 Calcium 61 mg
 Iron 1.43 mg

Portion size - 1 bowl
 Cooked Weight- 100 gm

Brinjal Bhaji

Ingredients:
 Brinjal 150 gm
 Tomato 30 gm
 Onion 30 gm
 Green chili 1
 Oil 2 t



Nutritive Value:
 Energy 190 kJal
 Protein 2.6 gm
 Fat 10 gm
 Carbs 10 gm
 Fibre 4 gm
 Calcium 61 mg
 Iron 0.5 mg

Portion size - 1 bowl
 Cooked Weight- 175 gm

Bhindi Sabji

Ingredients:
 Lady's finger 120 gm
 Onion 30 gm
 Oil 3 t




Nutritive Value:
 Energy 192 kJal
 Protein 2.6 gm
 Fat 15 gm
 Carbs 11 gm
 Fibre 6.3 gm
 Calcium 93 mg
 Iron 0.7 mg

Portion size - 1 bowl

Aadu Methi

Ingredients:
 Methi leaves 50 gm
 Potato 50 gm
 Green chili 5 gm
 Ginger 5 gm
 Garlic 3 gm
 Oil 2 t



Nutritive Value:
 Energy 192 kJal
 Protein 2.6 gm
 Fat 15 gm
 Carbs 11 gm
 Fibre 6.3 gm
 Calcium 93 mg
 Iron 0.7 mg

Portion size - 1 bowl

Palak Paneer

Ingredients:
 Palak-150 gm
 Paneer-40 gm
 Onion-25 gm
 Tomato-30 gm
 Ginger-1 cm
 Garlic-2 cloves
 Oil-1t

Nutritive Value:
 Energy-213 kJal
 Protein-7.61 gm
 Fat-15.8 gm
 Carbs-9.91 gm
 Calcium-282 mg
 Iron-1.32 mg

Portion size-1 bowl
 Cooked Weight-150 gm



Pea Potato Curry

Nutritive Value:
 Energy-238 kJal
 Protein-5.45 gm
 Fat-12.2 gm
 Carbs-26.6 gm
 Calcium-62.45 mg
 Iron-1.61 mg

Ingredients:
 Potato-30 gm
 Peas-30 gm
 Onion-30 gm
 Tomato-30 gm
 Garlic-2 cloves
 Ginger-1 gm
 Oil-2t

Consider for garnishing

Portion size-1 bowl
 Cooked Weight-175 gm



Sarso Ka Saag

Portion size-1 bowl
 Cooked Weight-225 gm

Ingredients:
 Mustard leaves-150 gm
 Spinach-50 gm
 Ginger-10 gm
 Garlic-2
 Green chili-1
 Onion-20 gm
 Oil-1t

Nutritive Value:
 Energy-156 kJal
 Protein-6.5 gm
 Fat-6.7 gm
 Carbs-15.7 gm
 Fiber-3.2 gm
 Calcium-200 mg
 Iron-25 mg



Kaddu

Ingredients:
 Pumpkin-140 gm
 Sugar-5 gm
 Oil-1t

Nutritive Value:
 Energy-99.9 kJal
 Protein-1.96 gm
 Fat-5.14 gm
 Carbs-15.4 gm
 Calcium-14.6 mg
 Iron-0.62 mg

Portion size-1 bowl
 Cooked Weight-100 gm



Shahi Paneer Curry

Ingredients:
 Paneer-30 gm
 Onion-30 gm
 Tomato-100 gm
 Green chili-1/2
 Butter-1 1/2
 Sugar-a pinch
 Cream-1/4
 Consider for garnishing

Nutritive Value:
 Energy-390 kJal
 Protein-11.92 gm
 Fat-30.2 gm
 Carbs-24.2 gm
 Calcium-390.4 mg
 Iron-1.42 mg

Portion size-1 bowl
 Cooked Weight-185 gm



Aalu Pakoda

Ingredients:
 Bean-30 gm
 Raw potato-80 gm
 Oil-10 gm

Nutritive Value:
 Energy-354 kJal
 Protein-11.6 gm
 Fat-12.88 gm
 Carbs-47.98 gm
 Calcium-36 mg
 Iron-3.03 mg

Portion size-1 plate
 Cooked Weight-100 gm



Aalu Tikki

Ingredients:
 Potato (boiled)-230 gm
 Green chili-1
 Cori-30 gm
 Mustard oil-25 gm

Nutritive Value:
 Energy-477.93 kJal
 Protein-4.6 gm
 Fat-25.88 gm
 Carbs-57.1 gm
 Fiber-4.25 gm
 Calcium-48.85 mg
 Iron-1.45 mg

Portion size-2 tikki
 Cooked Weight-170 gm



Golgappe

Ingredients:
 Soya/uradina-30 gm
 Potato-30 gm
 Chole-10 gm
 Oil for fry

Nutritive Value:
 Energy-239 kJal
 Protein-3.12 gm
 Fat-15.24 gm
 Carbs-22.4 gm
 Calcium-4.8 mg
 Iron-0.48 mg

Portion size-6 golgappe
 Cooked Weight-120 g



Momos

Ingredients:
 Refined wheat flour-50 gm
 Onion-25 gm
 Carrot-25 gm
 Cabbage-50 gm
 Green chili-1



Nutritive Value:
 Energy-215 kJal
 Protein-7.22 gm
 Fat-0.60 gm
 Carbs-45.2 gm
 Fibre-2.5 gm
 Calcium-62.5 mg
 Iron-2.52 mg

Portion size - 6 momos
 Cooked Weight- 145 gm

Masala Dosa With Sambar

Portion size -2
 Cooked Weight- 125 gm each



Ingredients:
 Potato-100 gm
 Black gram dal-1 t
 Bengal gram dal-1 t
 Onion-50 gm
 Ginger-1 cm
 Green chili-1 cm
 Oil-3 gm

Nutritive Value:
 Energy-286 kJal
 Protein-6 gm
 Fat-3.9 gm
 Carbs-54.4 gm
 Calcium-40.9 mg
 Iron-1.6 mg

Khanna Dhokla

Portion size -4
 Cooked Weight- 150 gm



Ingredients:
 Chana dal-30 gm
 After soaking and grinding-65 gm
 Eco- 1/1
 Curry leaves for tempering
 Oil for tempering

Nutritive Value:
 Energy-342 kJal
 Protein-6.5 gm
 Fat-12.3 gm
 Carbs-26.5 gm
 Calcium-17.8 mg
 Iron-1.7 mg

Pizza

Portion size -1
 Cooked Weight- 150 gm



Ingredients:
 Pizza base (weight)-110 gm
 Pizza sauce-25 gm
 Capsicum-20 gm
 Spring onion-20 gm
 Mushroom-25 gm
 Cabbage-20 gm
 Cheese-20 gm

Nutritive Value:
 Energy-349 kJal
 Protein-18.9 gm
 Fat-18.9 gm
 Carbs-32.9 gm
 Fibre-2.3 gm
 Calcium-222 mg
 Iron-3.2 mg

Aalu Pea Samosa

Ingredients:
 Masala-60 gm
 Potato-150 gm
 Peas-75 gm
 Ginger-1/2
 Oil for frying



Nutritive Value:
 Energy-221 kJal
 Protein-5.96 gm
 Fat-10.24 gm
 Carbs-32.2 gm
 Calcium-12.27 mg
 Iron-0.98 mg

Portion size - 2 samosas
 Cooked Weight- 110 gm (2 samosa)

Rice lalli

Ingredients:
 Rice-50 gm
 Washed urad dal-40 gm



Nutritive Value:
 Energy-156 kJal
 Protein-6.7 gm
 Fat-0.5 gm
 Carbs-31.5 gm
 Calcium-33 mg
 Iron-1.6 mg

Portion size -4
 Cooked Weight- 75 gm

Spring Roll

Ingredients:
 Refined flour-80 gm
 Carrot-20 gm
 Cabbage-15 gm
 Capsicum-15 gm
 Spring Onion-20 gm
 Oil for frying



Nutritive Value:
 Energy-483 kJal
 Protein-14.8 gm
 Fat-14.33 gm
 Carbs-81 gm
 Calcium-81 mg
 Iron-4.53 mg

Portion size - 2 spring rolls
 Cooked Weight- 140 gm (2 spring roll)

Tomato & Cheese Sandwich

Ingredients:
 Bread-2 slice
 Butter-15 gm
 Pressed chana-35 gm
 Tomato-50 gm



Nutritive Value:
 Energy-333 kJal
 Protein-11.75 gm
 Fat-19.37 gm
 Carbs-32.77 gm
 Calcium-252 mg
 Iron-2.17 mg

Portion size - 2 sandwiches
 Cooked Weight- 110 gm

Uththapam

Portion size - 2
Cooked Weight - 75 gm



Ingredients:
Rice - 60 gm
After soaking and grinding 75 gm
Onion - 50 gm
Tomato - 50 gm
Green chili - 1
Oil - 10 gm

Nutritive Value:
Energy - 316 kcal
Protein - 7.8 gm
Fat - 10 gm
Carbs - 51.6 gm
Calcium - 55 mg
Iron - 2.1 mg

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Burger

Ingredients:
Burger Bun - 1 (100 gm)
Potato - 100 gm
Onion - 25 gm
Tomato - 25 gm
Cheese slice - 1
Cabbage - 20 gm



Nutritive Value:
Energy - 358 kcal
Protein - 12.91 gm
Fat - 16.89 gm
Carbs - 45.47 gm
Fibre - 0.98 gm
Calcium - 235.5 mg
Iron - 1.97 mg

Portion size - 1
Cooked Weight - 265 gm

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Tea

Ingredients:
Milk - 30 ml
Sugar - 2 t



Nutritive Value:
Energy - 37 kcal
Fat - 1 gm
Protein - 0.6 gm
Carbs - 3.7 gm
Calcium - 31 mg
Iron - 0 mg

Portion Size - 1 tea cup
Volume - 240 ml

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Lut Tea

Ingredients:
Water - 100 ml
Sugar - 1 t
Lemon juice - 30 ml



Nutritive Value:
Energy - 135 kcal
Fat - 0.5 gm
Protein - 0.2 gm
Carbs - 33.2 gm
Calcium - 37 mg
Iron - 0.1 mg

Portion Size - 1 full glass
Volume - 170 ml

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Instant Coffee

Ingredients:
Hot milk - 75 ml
Sugar - 10 gm



Nutritive Value:
Energy - 150 kcal
Fat - 1.1 gm
Protein - 1.0 gm
Carbs - 6.3 gm
Calcium - 36 mg
Iron - 0.1 mg

Portion Size - 1 cup
Volume - 240 ml

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Sweet Lassi

Ingredients:
Curd - 100 gm
Sugar - 15 gm



Nutritive Value:
Energy - 149 kcal
Fat - 6.6 gm
Protein - 3.3 gm
Carbs - 18.9 gm
Calcium - 21.0 mg
Iron - 0.2 mg

Portion Size - 1 full glass
Volume - 230 ml

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Gold Coffee With Ice Cream

Ingredients:
Milk - 240 ml
Sugar - 3 t
Ice cream - 50 gm



Nutritive Value:
Energy - 304 kcal
Fat - 12.2 gm
Protein - 6 gm
Carbs - 41.1 gm
Calcium - 184.2 mg
Iron - 0.33 mg

Portion Size - 1 full glass
Volume - 300 ml

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Gold Coffee With Ice Cream

Ingredients:
Milk - 240 ml
Sugar - 3 t
Ice cream - 50 gm



Nutritive Value:
Energy - 304 kcal
Fat - 12.2 gm
Protein - 6 gm
Carbs - 41.1 gm
Calcium - 184.2 mg
Iron - 0.33 mg

Portion Size - 1 full glass
Volume - 300 ml

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Ingredients:
 Fish: 100gm
 Onion: 50gm
 Garlic: 1 clove
 Tomato: 5 gm
 Curd: 15 gm
 Oil for frying

Nutritive Value:
 Energy: 296 cal
 Fat: 17.3 gm
 Protein: 18.4 gm
 Carbs: 18.3 gm
 Fibre: 1.6 g
 Calcium: 731 mg
 Iron: 1.7 mg

Portion Size: 2 pieces
Weight: 110 gm



Fish Curry

Ingredients:
 Boneless chicken: 100 gm
 Mayonnaise: 30 gm
 Onion: 20 gm
 Tomato: 20 gm
 Cabbage: 2 leaves
 Milk: 1/2 cup
 Soup: 2 T
 Burger bun: 100 gm
 Oil: 15 gm

Nutritive Value:
 Energy: 734 cal
 Fat: 21.53 gm
 Protein: 46.74 gm
 Carbs: 88.3 gm
 Fibre: 0.76 g
 Calcium: 372.5 mg
 Iron: 3.65 mg

Portion Size: 1 Burger with milk
Weight: 200 gm (net of milk: 75 gm)



Chicken Burger

Ingredients:
 Rice: 30 gm
 Boneless chicken: 50 gm
 Onion: 50 gm
 Garlic: 3-4 clove
 Tomato: 25 gm
 Curd: 1 T
 Milk: 1 T
 Oil: 15 gm

Nutritive Value:
 Energy: 461 cal
 Fat: 21.8 gm
 Protein: 18.22 gm
 Carbs: 47.8 gm
 Fibre: 0.42 g
 Calcium: 89.55 mg
 Iron: 1.32 mg

Portion Size: 1 plate
Weight: 140 gm



Chicken Biryani

Ingredients:
 Chicken without skin (broiler): 500 gm
 Curd: 100 gm
 Ginger: 20 gm
 Garlic: 3 cloves
 Vinegar: 1 T
 Lemon: 1
 Oil: 1 T

Nutritive Value:
 Energy: 283 cal
 Fat: 18.8 gm
 Protein: 23.8 gm
 Carbs: 0.6 gm
 Calcium: 10 mg
 Iron: 2 mg

Portion Size: 1 plate
Weight: 333 gm



Tandoori Chicken

Ingredients:
 Minced meat: 100 gm
 Onion: 15 gm
 Bengal gram: 10 gm
 Garlic: 2
 Ginger: 5 gm
 Beaten egg: 1/4
 Bread crumbs: 30 gm
 Oil for frying

Nutritive Value:
 Energy: 435 cal
 Fat: 25.8 gm
 Protein: 25 gm
 Carbs: 25.8 gm
 Fibre: 3.6 g
 Calcium: 180 mg
 Iron: 3.4 mg

Portion Size: 2 Kababs
Weight: 50 gm



Shami Kabab

Ingredients:
 Rajma: 15 gm
 Kabuli chana: 15 gm
 Potato: 30 gm
 Cucumber: 30 gm
 Onion: 20 gm
 Green chili: 1/2
 Lemon: 1/2

Nutritive Value:
 Energy: 135 kcal
 Protein: 7.27 gm
 Fat: 1.17 gm
 Carbs: 28.78 gm
 Calcium: 97.18 mg
 Iron: 2.33 mg

Portion size: 1 bowl
Cooked Weight: 175 gm



Mixed Pulses & Veg Salad

Ingredients:
 Cabbage: 2 leaves
 Cucumber: 15 gm
 Tomato: 30 gm
 Capsicum: 15 gm
 Spring onion, chopped: 2
 Lemon: 1/2

Nutritive Value:
 Energy: 152 kcal
 Protein: 1.7 gm
 Fat: 12.2 gm
 Carbs: 9.2 gm
 Fibre: 2 gm
 Calcium: 50 mg
 Iron: 0.9 mg

Portion size: 1 bowl
Cooked Weight: 200 gm



Tossed Green Salad

*All the pictures have been reduced to 1/8 of the original size.

Conclusion :

Pictorial presentation of standardised portion sizes of these 50 recipes can be useful for the general public in assessing their dietary intake as well as gain information on the weight and nutrient content of the recipes.

A digital database in the form of a website can be maintained for all these and many more recipes.

Further Dietary intake can be taken with the help of these pictures, thereby helping both Dieticians and Research Scholars in Dietary assessment.

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