



HOME AUGMENTED RECIPES FOR **PREGNANT WOMEN**

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Important Instructions

1. Wash your hands with soap before cooking.
2. Cook your food on a medium flame.
3. While cooking, cover the utensils with their lids.
4. Wash the vegetables before cutting them, not after that.
5. While preparing rice & pulses, ensure that you soak them in water for around 15 minutes. Use the same water for cooking them.
6. Use vegetable oils. Avoid Vanaspati as it is harmful.



HOME AUGMENTED MEAL/SNACK RECIPES FOR UNDERWEIGHT INDIAN WOMEN



Rationale

Maternal undernutrition affects the health of both the mother and children. Poor nutrition during pregnancy is one of the major reasons for Intrauterine Growth Retardation (IUGR) and Low Birth Weight (LBW) babies. Moreover, pregnancy is physiologically and nutritionally a highly demanding period where extra food is needed to meet the requirements of the foetus. Therefore, pregnancy calls for extra provision of nutrients.

The recommended dietary allowances (RDA) for sedentary women is 1900 kcal and 55g of protein. The additional requirements of energy during pregnancy is 350 kcal of energy and 23 g of protein making their RDA; 2250 Kcal of energy and 78 g of protein. Vitamin A values depicted are retinol equivalents which have been computed using the formula: Beta carotene/8 + Retinol.

The recipes provided in this book are of home based augmented snacks that will serve additional energy and protein to meet the increased physiological needs during pregnancy.

For severely underweight pregnant women, one additional snack is recommended (350Kcal each).



The underweight recipes for Indian pregnant women in this booklet have been conceptualized, standardized and prepared by the National Center of Excellence and Advanced Research on Diets (NCEARD), Department of Food and Nutrition, Lady Irwin College.

Table no.1:

Recommended Dietary Allowance of sedentary and pregnant women

Nutrients	Recommended Dietary Allowance of sedentary women	Additional requirements during pregnancy	Recommended Dietary Allowance of pregnant women
Energy (Kcal)	1900	350	2250
Protein (g)	55	23	78
Iron (mg)	21	14	35
Visible fat (g)	20	10	30
Vitamin C (mg)	40	20	60
Vitamin A (mcg)	600	200	800
Calcium (mg)	600	600	1200

The recipes in this book provide about 350kcal of energy, 10-20g of protein and 1/8th of the RDA of most micro-nutrients.



FRESHLY PREPARED RECIPES



Sweet Daliya

Cost: Rs. 10.86



Energy **374**kcal

Protein **15.4**g

Dietary fibre **5.3**g

Carbohydrate **47**g

Fat **13.5**g

Iron **6.5**mg

Vitamin C **2**mg

Vitamin A **66**mcg

Calcium **368**mg



Serving size: 1 katora*

Ingredients

- ✓ **Daliya** 25g
- ✓ **Besan** 25g
- ✓ **Milk** 100ml
- ✓ **Sesame seeds** 17g
- ✓ **Jaggery** 10g

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*163g



Total cooking time: 10-15 minutes

Methods of preparation

- ✓ Dry roast daliya, besan and sesame seeds separately in a kadahi on a medium or low heat until they become light brown. Keep them aside.
- ✓ Grind the roasted sesame seeds. Keep them aside.
- ✓ Cook the roasted daliya in 1 cup of water for about 10 minutes. Partially cover the kadahi.
- ✓ Add milk, roasted besan and grounded sesame seeds over the cooked daliya and mix well.
- ✓ Cook them uncovered for 3-4 minutes until it reaches desired consistency.
- ✓ Take jaggery in a karahi and add 1/4th glass of water and make jaggery syrup.
- ✓ Add the syrup in the prepared mixture and serve hot.



Cereal Pulse Halwa

Cost: Rs. 5.81



Energy **375**kcal

Protein **12.8**g

Dietary fibre **4.4**g

Carbohydrate **37**g

Fat **19.3**g

Iron **6.8**mg

Vitamin C **0**mg

Vitamin A **8**mcg

Calcium **252**mg



Serving size: 1 katora*

Ingredients

- ✓ **Whole wheat flour** 10g
- ✓ **Besan** 35g
- ✓ **Sesame seeds** 17g
- ✓ **Jaggery** 10g
- ✓ **Ghee** 10g

● 1 teaspoon (tsp) = 5ml

● 1 tablespoon (tbsp) = 15ml

*115g



Total cooking time: 10-15 minutes

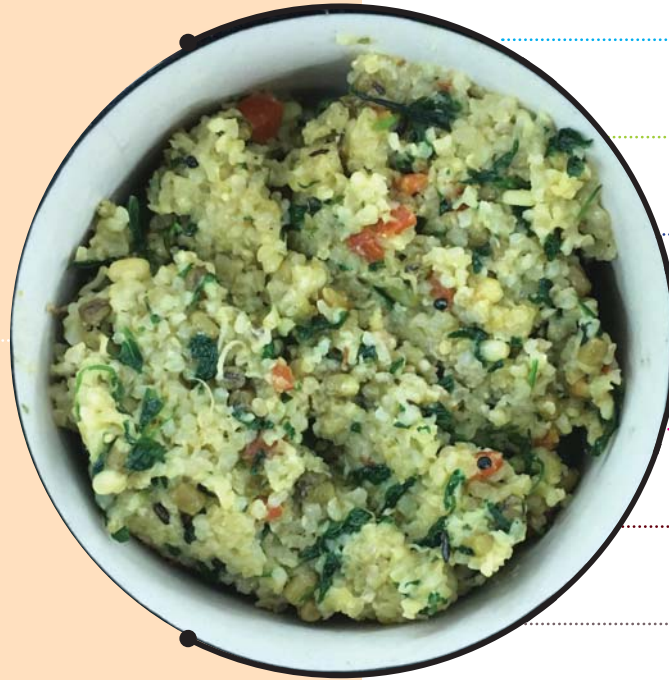
Methods of preparation

- ✓ In a karahi heat ghee and roast whole wheat flour, besan and sesame seeds until light brown in color.
- ✓ In a separate vessel add jaggery and mix in one glass of water to make sugar syrup.
- ✓ Now, add this sugar syrup to the halwa and mix well.
- ✓ Your cereal-pulse halwa is ready to be served.



Daliya Pulao

Cost: Rs. 12.01



Energy **351** kcal

Protein **15**g

Dietary fibre **12.9**g

Carbohydrate **52**g

Fat **8.3**g

Iron **7.3**mg

Vitamin C **30**mg

Vitamin A **471**mcg

Calcium **150**mg



Serving size: 1 katora*

Ingredients

- ✓ **Daliya** 40g
- ✓ **Chana dal whole** 40g
- ✓ **Lotus root** 30g
- ✓ **Fenugreek leaves** 40g
- ✓ **Oil** 5g

Spices and Condiments

- ✓ **Green chilli** 2cm
- ✓ **Asafoetida** a pinch
- ✓ **Mustard seeds** ½ tsp
- ✓ **Turmeric** ½ tsp
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*275g



Total cooking time: 10-15 minutes

Methods of preparation

- ✓ Soak chana dal in water for 10-15 minutes.
- ✓ In a karahi, dry roast the daliya at a medium flame until light brown.
- ✓ Wash and chop the fenugreek leaves, lotus root and green chilli.
- ✓ In a pressure cooker, heat oil and add mustard seeds, asafoetida and green chilli.
- ✓ Now add chopped vegetables, soaked chana dal, roasted daliya, turmeric and salt to taste. Stir the contents for a while.
- ✓ Now add a little water, cover the pressure cooker and cook at medium flame for a while.
- ✓ Once cooked, serve the daliya pulao hot.



Soya Poha

Cost: Rs. 11.1



Energy **358** kcal

Protein **14.1** g

Dietary fibre **11.2** g

Carbohydrate **35** g

Fat **16.5** g

Iron **10.1** mg

Vitamin C **3** mg

Vitamin A **0** mcg

Calcium **74** mg



Serving size: 1 katora*

Ingredients

- ✓ **Rice flakes** 30g
- ✓ **Soya granules** 30g
- ✓ **Onion** 50g
- ✓ **Lotus stem** 10g
- ✓ **Oil** 10g

Spices and Condiments

- ✓ **Lemon juice** 3-4 drops
- ✓ **Turmeric powder** ½ tsp
- ✓ **Green chilli** 2 cm
- ✓ **Mustard seeds** ½ tsp
- ✓ **Curry patta** 2-3 leaves
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*175g



Total cooking time: 10-15 minutes

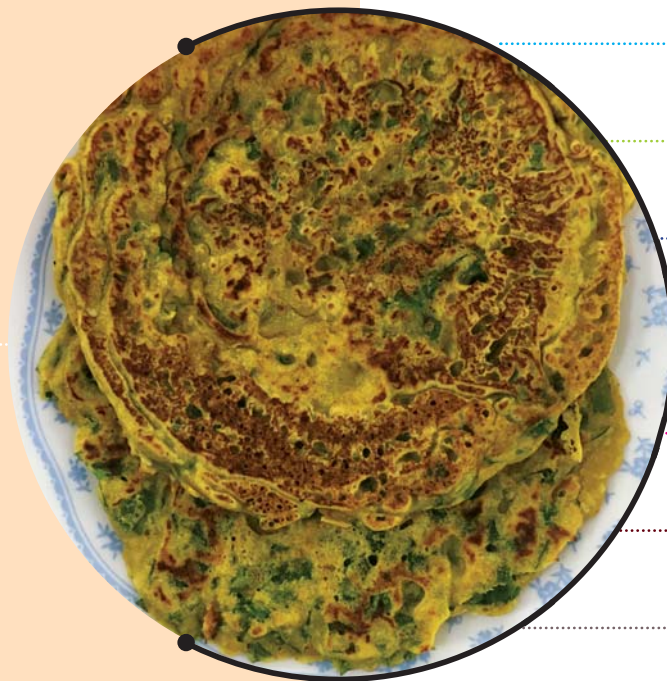
Methods of preparation

- ✓ Soak the rice flakes and soya granules in water for 2-3 minutes. Once soaked, add a pinch of salt and turmeric to it and keep it aside.
- ✓ Wash and chop the onion, lotus stem and green chilli.
- ✓ In a karahi, heat oil and add mustard seeds, turmeric powder, chopped onion, lotus stem and green chilli, curry patta and roast them for a while.
- ✓ Now add soaked rice flakes and soya granules and mix all the ingredients well.
- ✓ Now add lemon juice to the cooked poha and stir well.
- ✓ Your soya poha is ready to be served.



Paushtik Cheela

Cost: Rs. 5.94



Energy **349**kcal

Protein **13.5**g

Dietary fibre **3.8**g

Carbohydrate **35**g

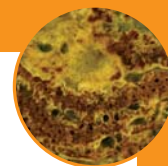
Fat **17.4**g

Iron **7.1**mg

Vitamin C **12**mg

Vitamin A **139**mcg

Calcium **188**mg



Serving size: 2 pieces*

Ingredients

- ✓ **Besan** 40g
- ✓ **Jowar flour** 15g
- ✓ **Spinach** 40g
- ✓ **Sesame seeds** 10g
- ✓ **Oil** 10g

Spices and Condiments

- ✓ **Garlic** 2g
- ✓ **Jeera** ½ tsp
- ✓ **Carom seeds (ajwain)** ½ tsp
- ✓ **Turmeric** ½ tsp
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*67g each



Total cooking time: 15-20 minutes

Methods of preparation

- ✓ Wash and finely chop the spinach and garlic.
- ✓ In a pan, roast the sesame seeds to a light brown color.
- ✓ In a bowl add besan, jowar flour, chopped spinach and roasted sesame seeds and mix them well with water to make a batter.
- ✓ To the batter, add garlic, jeera, ajwain, turmeric and salt to taste. Mix them well.
- ✓ Heat a little oil in a pan and pour a large spoon of batter and spread into a thick cheela.
- ✓ Fry on both the sides to golden brown.
- ✓ Your delicious paushtik cheela is ready to be served.

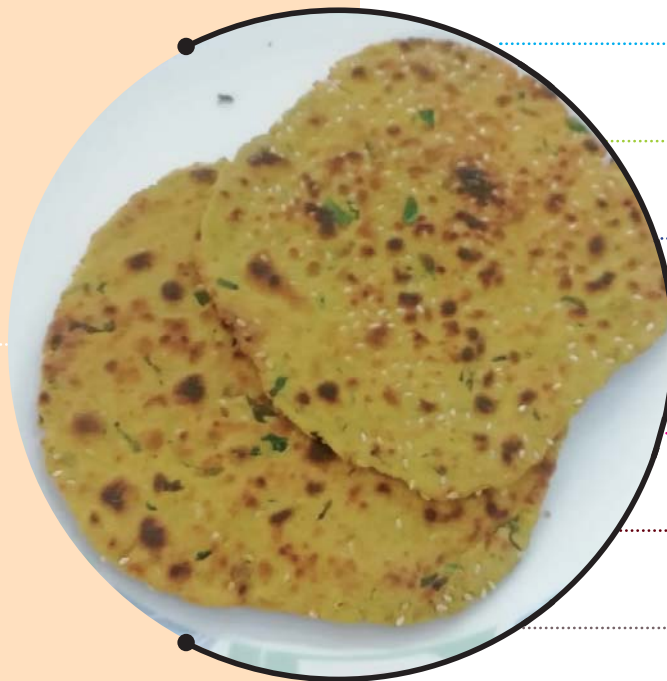


READY TO EAT



Khakhras

Cost: Rs. 8.52



Energy **357** kcal

Protein **17.2**g

Dietary fibre **8.4**g

Carbohydrate **33**g

Fat **16.8**g

Iron **7.5**mg

Vitamin C **17**mg

Vitamin A **354**mcg

Calcium **153**mg



Serving size: 4 khakras*

Ingredients

- ✓ **Bajra** 20g
- ✓ **Besan** 30g
- ✓ **Soya flour** 20g
- ✓ **Fenugreek leaves** 30g
- ✓ **Oil** 10g

Spices and condiments

- ✓ **Kasuri methi** ½ tsp
- ✓ **Red chilli powder** ½ tsp
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*45g each



Total cooking time: 20-25 minutes

Methods of preparation

- ✓ Take besan, bajra flour and soya flour in a bowl and sieve them well.
 - ✓ Wash and finely chop the fenugreek leaves and add to the flour mixture.
 - ✓ Now to this add, kasuri methi, red chilli powder, salt to taste and with the help of water make a tight dough.
 - ✓ Make 4 balls of equal size
- from the dough and flatten it over butter paper or plastic sheet.
- ✓ Now cook these flattened sheets of dough on a griddle. Use oil for greasing.
 - ✓ Your delicious khakhras are ready to be served.



Murmura Besan Ladoo

Cost: Rs. 7.26



Energy **351**kcal

Protein **14.7**g

Dietary fibre **3.5**g

Carbohydrate **50**g

Fat **10**g

Iron **7.5**mg

Vitamin C **1**mg

Vitamin A **24**mcg

Calcium **259**mg



Serving size: 4 pieces*

Ingredients

- ✓ **Puffed rice** 20g
- ✓ **Besan** 40g
- ✓ **Milk** 25ml
- ✓ **Sesame seeds** 15g
- ✓ **Jaggery** 10g

— 1 teaspoon (tsp) = 5ml
— 1 tablespoon (tbsp) = 15ml

*1 Ladoo = 27g



Total cooking time: 20 minutes

Methods of preparation

- ✓ Dry roast puffed rice, besan and sesame seeds separately in a karahi on a medium heat until they become light brown.
- ✓ Grind the roasted ingredients together or separately. Keep them aside.
- ✓ Take milk and add jaggery into it and stir them until the jaggery is completely dissolved.
- ✓ Pour the milk over the prepared powder mixture and mix well.
- ✓ Now make ladoo out of this mixture by applying water on the hands.



Chakli

Cost: Rs. 9.4



Energy **374**kcal

Protein **14.5**g

Dietary fibre **3.5**g

Carbohydrate **48**g

Fat **13.6**g

Iron **7**mg

Vitamin C **46**mg

Vitamin A **598**mcg

Calcium **239**mg



Serving size: 3 pieces*

Ingredients

- ✓ **Curd** 20g
- ✓ **Besan** 45g
- ✓ **Rice flour** 25g
- ✓ **Amaranth leaves** (green) 55g
- ✓ **Oil** 10ml

Spices and condiments

- ✓ **Red chilli powder** 1 tsp
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*1 Chakli = 25g



Total cooking time: 30-35 minutes

Methods of preparation

- ✓ Take besan and rice flour and mix them together. Keep them aside.
- ✓ Wash and chop amaranth leaves. Let them dry.
- ✓ Add salt, chilli powder and chopped amaranth leaves to the flour.
- ✓ With the help of curd and water make a soft dough. Keep it aside for 10 minutes.
- ✓ Put this dough in chakli making machine and make 3 chaklis.
- ✓ Heat oil in a karahi and add chakli to this. Fry them on slow flame till they turn out to be golden brown (8-10 minutes).
- ✓ Store them in an air tight container.



Sweet Mathri

Cost: Rs. 5.54



Energy **367**kcal

Protein **13.6**g

Dietary fibre **4.4**g

Carbohydrate **49**g

Fat **12.5**g

Iron **7.3**mg

Vitamin C **0**mg

Vitamin A **10**mcg

Calcium **173**mg



Serving size: 5 mathris*

Ingredients

- ✓ **Bajra flour** 20 g
- ✓ **Besan** 40 g
- ✓ **Sesame seeds** 10 g
- ✓ **Jaggery** 15 g
- ✓ **Oil** 5 g

— 1 teaspoon (tsp) = 5ml
— 1 tablespoon (tbsp) = 15ml

*20g each



Total cooking time: 20-25 minutes

Methods of preparation

- ✓ Take bajra flour and besan and sieve them together. To this add sesame seeds.
- ✓ In a pan make jaggery syrup by boiling jaggery in a small amount of water. Add this to the flour mixture and knead a tight dough.
- ✓ Cover it using a muslin cloth and keep it aside for 10 minutes.
- ✓ Make small balls from this dough and flatten it out to make a circle of 2-2.5 inch.
- ✓ With the help of a fork, make holes on the mathri.
- ✓ Heat oil in karahi, and slow down the flame once the oil gets properly heated.
- ✓ Fry the mathris in heated oil till they turn out to be golden brown (6-8 minutes).
- ✓ Store them in an air tight container.



Paushtik Namakpara

Cost: Rs. 7.4



Energy **358**kcal

Protein **19**g

Dietary fibre **5.0**g

Carbohydrate **32**g

Fat **17.1**g

Iron **7.3**mg

Vitamin C **9**mg

Vitamin A **108**mcg

Calcium **101**mg



Serving size: 1/2 cup*

Ingredients

- ✓ **Besan** 50g
- ✓ **Soya flour** 20g
- ✓ **Spinach** 30g
- ✓ **Oil** 10g

Spices and Condiments

- ✓ **Red chilli powder** 1 tsp
- ✓ **Ajwain** 1 tsp
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

*83g



Total cooking time: 25 minutes

Methods of preparation

- ✓ Take besan and soya flour and mix them together.
- ✓ Take spinach and wash it thoroughly. Boil it in 50 ml of water and prepare a puree.
- ✓ Mix this puree with the flour mixture and add salt, red chilli and ajwain.
- ✓ Knead this into a tight dough using 1 tsp of oil and little water(if required). Keep the kneaded dough aside (covered with muslin cloth) for 10 minutes.
- ✓ Make small balls out of this dough. Now, flatten the ball (not too thin) with the help of a rolling pin.
- ✓ With the help of a fork, make holes on namakpare.
- ✓ With the help of knife cut it out into ½ inch strips (both horizontally and vertically).
- ✓ Heat oil in a karahi. Once the oil is heated slow down the flame and add namakpare to this. (Note: oil should not be too hot).
- ✓ Store them in an air tight container.



Cereal Pulse Premix

Cost: Rs. 6.14



Energy **359**kcal

Protein **16.7**g

Dietary fibre **8.6**g

Carbohydrate **49**g

Fat **10.2**g

Iron **7.7**mg

Vitamin C **0**mg

Vitamin A **7**mcg

Calcium **203**mg



Serving size: 1 katora*

Ingredients

- ✓ **Bajra flour** 30g
- ✓ **Besan** 25g
- ✓ **Soya flour** 15g
- ✓ **Sesame seeds** 10g
- ✓ **Jaggery** 15g

— 1 teaspoon (tsp) = 5ml
— 1 tablespoon (tbsp) = 15ml

*81g



Total cooking time: 15-20 minutes

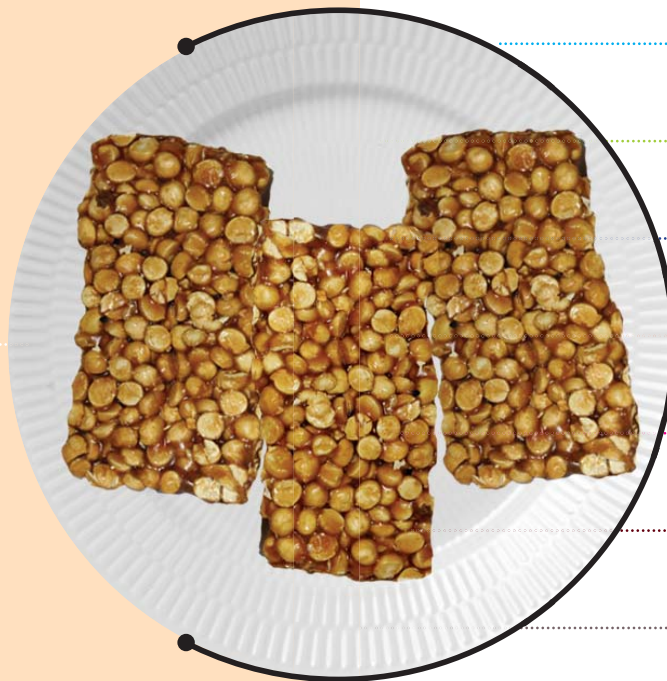
Methods of preparation

- ✓ Roast besan, bajra flour, soya flour and sesame seeds separately on a medium flame until they are cooked.
- ✓ Add jaggery to the roasted mixture and mix them well. The premix is ready.
- ✓ Take an air-tight container and store the premix.
- ✓ **Reconstitution** - The premix can be reconstituted with half or one glass of hot water or milk depending on the desired consistency.



Chana Dal Chikki

Cost: Rs. 6.44



Energy **362**kcal

Protein **11.6**g

Dietary fibre **7.9**g

Carbohydrate **54**g

Fat **10.2**g

Iron **6.9**mg

Vitamin C **0**mg

Vitamin A **7**mcg

Calcium **319**mg



Serving size: 3 pieces*

Ingredients

- ✓ **Bengal gram dal** 30g
- ✓ **Sesame seeds** 20g
- ✓ **Jaggery** 45g
- ✓ **Oil for greasing**

— 1 teaspoon (tsp) = 5ml
— 1 tablespoon (tbsp) = 15ml

*25g each



Total cooking time: 15-20 minutes

Methods of preparation

- ✓ Dry roast the Bengal gram dal and sesame seeds separately in a karahi until lightly browned. Keep them aside.
- ✓ Add jaggery in the karahi and add little water to it. Cook till the hard ball stage.
- ✓ Add all the ingredients to the syrup: remove from the heat, mix well and set in a greased plate. Cut into pieces and keep it for cooling at room temperature.
- ✓ Once cooled, break them and serve chikki or store them in an airtight container.



Paushtik Mathri

Cost: Rs. 8.38



Energy **332**kcal

Protein **12.6**g

Dietary fibre **6.4**g

Carbohydrate **32**g

Fat **16.5**g

Iron **7.7**mg

Vitamin C **26**mg

Vitamin A **527**mcg

Calcium **275**mg



Serving size: 6 mathris*

Ingredients

- ✓ **Besan** 30g
- ✓ **Whole wheat flour** 20g
- ✓ **Fenugreek leaves** 45g
- ✓ **Sesame seeds** 10g
- ✓ **Oil** 10g

Spices and Condiments

- ✓ **Red chilli powder** ½ tsp
- ✓ **Ajwain** 1 tsp
- ✓ **Salt to taste**

— 1 teaspoon (tsp) = 5ml
— 1 tablespoon (tbsp) = 15ml

*20g each



Total cooking time: 20-25 minutes

Methods of preparation

- ✓ Wash and finely chop the fenugreek leaves.
- ✓ Take besan and whole wheat flour and sieve it thoroughly. To this add fenugreek leaves, salt, sesame seeds, red chilli powder and ajwain.
- ✓ Add 1 tsp of oil and little water to knead a tight dough. Cover it with muslin cloth and keep it aside for 10 minutes.
- ✓ Now make 6 small balls and flatten them with a rolling pin to medium thickness. Using fork, make holes on mathris.
- ✓ Heat oil in a karahi/frying pan. Slow down the flame once it is hot.
- ✓ Add mathris to the oil and fry them until they turn golden brown.
- ✓ Store them in an air tight container.



HOME BASED MEAL/SNACK RECIPES

FOR OBESE INDIAN WOMEN





Rationale

Dual burden of malnutrition is quite evident worldwide. This data calls for dietary interventions for obese women. The recipes discussed in this booklet are for obese pregnant women to help them make better food choices by including more of dietary fibre and vitamin rich foods and sparing use of fats.

There are fourteen recipes in this book for obese pregnant women, which include six meal replacement recipes and eight snack replacement recipes. Each snack replacement recipe will provide about 100-150Kcal of energy, 6g of protein, and almost 1/8th of the micro-nutrient in most recipes. Each meal replacement recipe will provide about 350Kcal of energy, 13-20g of protein, and almost 1/4th of the micro-nutrient in most recipes. Vitamin A values depicted are retinol equivalents which have been computed using the formula: Beta carotene/8 + Retinol. The Recommended Dietary Allowance (RDA)

for sedentary women is 1900 Kcal. In case of pregnant women an addition of 350 Kcal is required as mentioned in Table 1. The nutritional requirements from the meal have been estimated by reduction of 500 Kcal from the RDA for pregnant women i.e., 2250 Kcal which comes out to be 1750 Kcal for obese pregnant women. In this case, one meal replacement (350 Kcal) and 2 snack replacements (150 Kcal each) are recommended along with 2 main meals (500 kcal each).



The recipes for obese Indian women in this booklet have been conceptualized, standardized and prepared by the National Center of Excellence and Advanced Research on Diets (NCEARD), Department of Food and Nutrition, Lady Irwin College.

Table no. 1:
Recommended dietary allowances

Nutrient	Recommended Dietary Allowance of sedentary women	Additional requirements during pregnancy	Recommended Dietary Allowance of pregnant women
Energy (Kcal)	1900	350	2250
Protein (g)	55	23	78
Iron (mg)	21	14	35



SNACK REPLACEMENT RECIPES



Chhach



Cost: Rs. 38.8

Energy **132** kcal

Protein **8.2**g

Dietary fibre **4.9**g

Carbohydrate **7**g

Fat **7.6**g

Iron **3.9**mg

Vitamin C **9**mg

Vitamin A **363**mcg

Calcium **443**mg



Serving size - 200 ml

Ingredients

- ☉ **Curd** 180g
- ☉ **Mint leaves** 20g
- ☉ **Curry leaves** 20g
- ☉ **Ginger fresh** 5g
- ☉ **Green chilli** 2.5g

Spices and Condiments

- ☉ **Jeera powder** ½ tsp
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 5-10 minutes

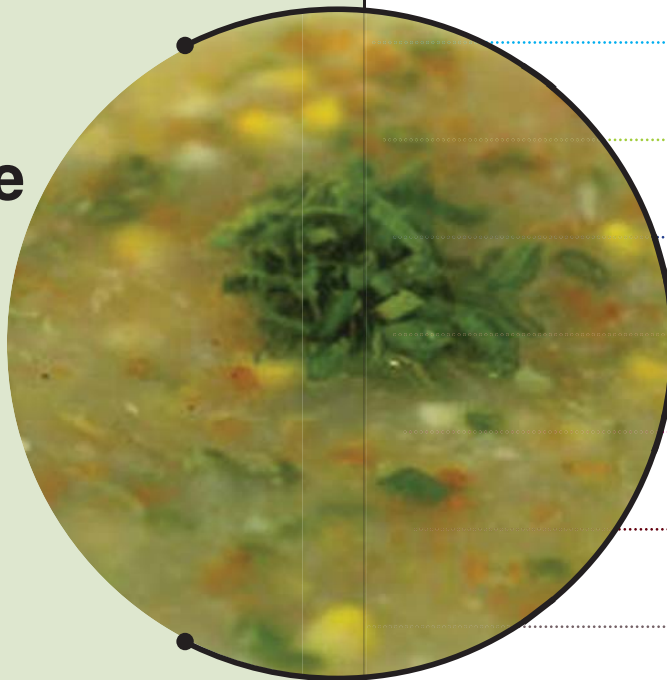
Method of preparation

- ☉ In a container take curd, ginger, mint leaves, curry leaves and green chilli.
- ☉ Add jeera powder and salt and blend all the ingredients together.
- ☉ Now to the blended mixture add one cup water.
- ☉ Pour the chaach in a glass.
- ☉ Your chaach is now ready to be served.



Vegetable Soup

Cost: Rs.11.5



Energy **135** kcal

Protein **4.4**g

Dietary fibre **6.2**g

Carbohydrate **15**g

Fat **6.2**g

Iron **3.5**mg

Vitamin C **54**mg

Vitamin A **721** mcg

Calcium **219**mg



Serving size - 320g

Ingredients

- ☉ **Maize tender local** 50g
- ☉ **Amaranth leaves** 60g
- ☉ **Carrot red** 20g
- ☉ **French beans hybrid** 20g
- ☉ **Oil** 5ml

Spices and condiments

- ☉ **Black pepper** 1/4 tsp
- ☉ **Ginger** 1cm
- ☉ **Garlic** 1 clove
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 10-15 minutes

Method of preparation

- ☉ Wash and chop the amaranth leaves, french beans and carrot.
- ☉ Boil these vegetables in a cup of water and once boiled, remove the vegetables and keep aside the vegetable stock prepared.
- ☉ Then, in a saucepan, heat oil and saute finely chopped ginger, garlic and maize.

Once done, add the vegetable stock over the sautéed vegetables, add seasoning and boil it for 5-10 minutes.

- ☉ Your delicious vegetable soup is ready to be served.



Fruit Raita

Cost: Rs. 15.08



Energy **123** kcal

Protein **6.1** g

Dietary fibre **8.5** g

Carbohydrate **8** g

Fat **7.1** g

Iron **3.7** mg

Vitamin C **115** mg

Vitamin A **162** mcg

Calcium **279** mg



Serving size - 137g

Ingredients

- ☉ **Curd** 60g
- ☉ **Pumpkin** 50g
- ☉ **Guava** 50g
- ☉ **Mint leaves** 20g
- ☉ **Sesame seeds** 10g

Spices and condiments

- ☉ **Black pepper** ¼ tsp
- ☉ **Chaat masala** ¼ tsp
- ☉ **Black salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 10-15 minutes

Method of preparation

- ☉ Wash guava, pumpkin and mint leaves under running tap water.
- ☉ Peel the pumpkin and guava. Boil Pumpkin for 5-10 minutes until soft.
- ☉ In a pan, roast sesame seeds to light brown colour.
- ☉ Now blend curd, peeled guava, boiled pumpkin, mint leaves and roasted sesame seeds with the help of blender to a thick paste.
- ☉ Pour it in a bowl, add spices according to taste and cool it in the refrigerator.
- ☉ Your fruit raita is ready to be served.



Vegetable Idli



Cost: Rs. 5.28

Energy **155** kcal

Protein **7.5**g

Dietary fibre **6.1**g

Carbohydrate **26**g

Fat **2**g

Iron **2.9**mg

Vitamin C **12.5**mg

Vitamin A **274** mcg

Calcium **103**mg



Serving size - 4 pieces*

Ingredients

- ☉ **Semolina (Sooji)** 25g
- ☉ **Bengal gram dal** 15g
- ☉ **Curd** 20g
- ☉ **Fenugreek leaves** 20g
- ☉ **Carrot** 10g
- ☉ **Oil for greasing**

Spices and condiments

- ☉ **Fruit salt** ¼ tsp
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

* 25 g each



Preparation time - 25-30 minutes

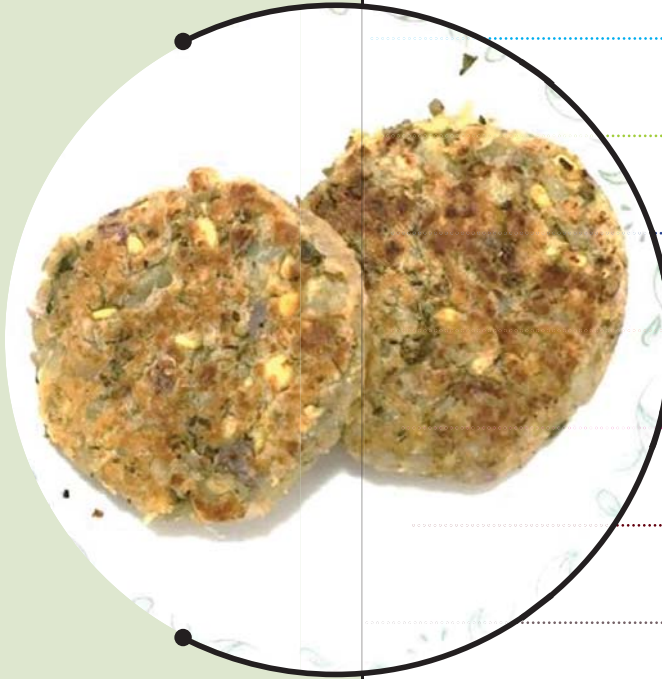
Method of preparation

- ☉ Soak Bengal gram dal overnight.
- ☉ Wash vegetables under running water and chop them.
- ☉ Dry roast the soaked gram dal on a medium flame.
- ☉ Combine the sooji, soaked Bengal gram dal, chopped vegetables, curd, and salt in a bowl and blend them well to a smooth paste.
- ☉ Just before steaming add ¼ tsp of fruit salt to the paste and mix well with the batter.
- ☉ Grease the idli moulds using oil, put spoonful of the batter into the idli moulds and steam in a steamer till the idlis are cooked.
- ☉ Cool slightly, de-mould and serve immediately.



Chana Dal Kebab

Cost: Rs. 12.3



Energy **150**kcal

Protein **5.5**g

Dietary fibre **6.7**g

Carbohydrate **17**g

Fat **6.3**g

Iron **3.0**mg

Vitamin C **34**mg

Vitamin A **272**mcg

Calcium **116**mg



Serving size - 2 pieces*

Ingredients

- ☉ **Rice flakes** 10g
- ☉ **Bengal gram whole** 20g
- ☉ **Amaranth leaves green** 25g
- ☉ **Onion** 10g
- ☉ **Oil** 5ml

Spices and condiments

- ☉ **Kasuri methi** 1 tsp
- ☉ **Garam masala** ¼ tsp
- ☉ **Dried mango powder** 1 tsp
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

* 30 g each



Preparation time - 15-20 minutes

Sprouting Bengal gram whole

- ☉ Wash and soak the Bengal gram whole overnight.

Method of preparation

- ☉ Wash amaranth leaves under running water. Blanch them and keep it aside.
- ☉ Soak the rice flakes in water for 2-3 minutes. Drain and keep it aside.
- ☉ Steam the prepared ankurit dal until soft.
- ☉ Finely chop the onions.
- ☉ Combine soaked rice flakes, cooked ankurit dal, chopped onions, blanched amaranth leaves and spices together in a bowl and prepare a mixture.
- ☉ Divide the mixture and make them into flat round kebab.
- ☉ Heat and grease a nonstick tava using oil and cook each kebab on both the sides.
- ☉ Serve hot.



Ankurit Chana Chaat

Cost: Rs. 8.6



Energy **153**kcal

Protein **7.8**g

Dietary fibre **10.5**g

Carbohydrate **16**g

Fat **5.9**g

Iron **3.7**mg

Vitamin C **24**mg

Vitamin A **179**mcg

Calcium **196**mg



Serving size - 110g

Ingredients

- ☉ **Bengal gram whole** 25g
- ☉ **Onion** 20g
- ☉ **Tomato** 20g
- ☉ **Carrot** 40g
- ☉ **Sesame seeds** 10g

Spices and condiments

- ☉ **Lemon juice(optional)** 3-4 drops
- ☉ **Salt to taste**
- ☉ **Chaat masala** ½ tsp

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 10-15 minutes

Sprouting Bengal gram whole

- ☉ Wash and soak the Bengal gram whole overnight.
- ☉ Next day, drain all water from soaked Bengal gram whole

Method of preparation

- ☉ Steam the Bengal gram sprouts until they are soft.
- ☉ Roast the sesame seeds to golden brown.
- ☉ Chop the tomato, onion and carrot.
- ☉ In a bowl, combine chopped vegetables, cooked sprouts,

and wrap them in a damp cotton cloth. Keep it for 1 or 2 days in a loosely covered container.

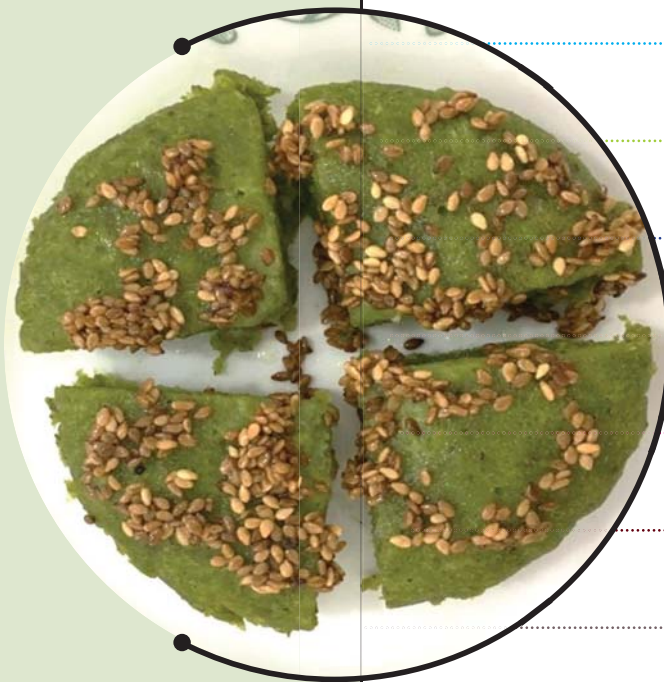
roasted sesame seeds, chaat masala and salt. Mix them well.

- ☉ Squeeze few drops of lemon juice over the mixture and your chaat is ready.



Haryali Khaman Dhokla

Cost: Rs. 4.4



Energy **157**kcal

Protein **6.6**g

Dietary fibre **1.9**g

Carbohydrate **13**g

Fat **1.7**g

Iron **3.6**mg

Vitamin C **17**mg

Vitamin A **221**mcg

Calcium **157**mg



Serving size - 4 pieces*

Ingredients

- ⊙ **Besan** 20g
- ⊙ **Amaranth leaves** 20g
- ⊙ **Curd** 10g
- ⊙ **Sesame seeds** 5g
- ⊙ **Cooking oil** 5ml

Spices and condiments

- ⊙ **Fruit salt** ¼ tsp
- ⊙ **Lemon juice** 1 tsp
- ⊙ **Sugar** ¼ tsp
- ⊙ **Salt to taste**
- ⊙ **Asafoetida (hing)** ½ tsp
- ⊙ **Mustard seeds** ½ tsp
- ⊙ **Green chilli** 1 chilli

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

* 25 per pieces



Preparation time - 25-30 minutes

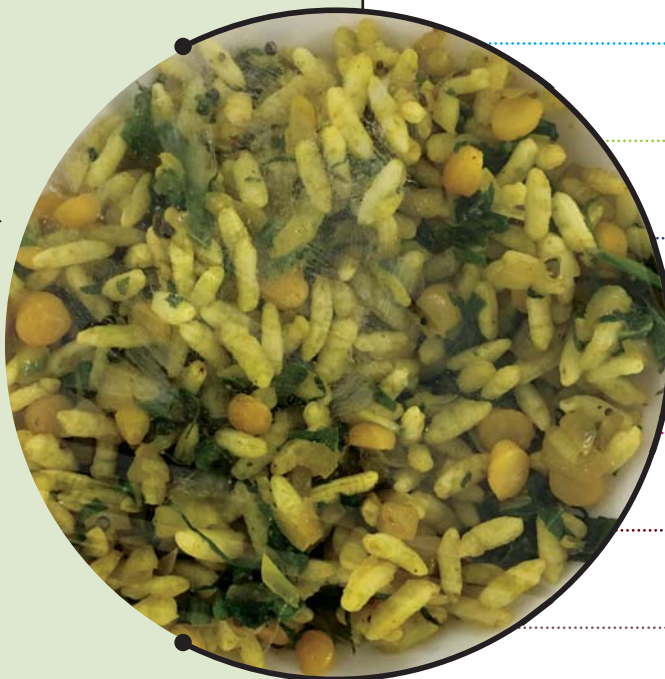
Method of preparation

- ⊙ Wash and blanch the amaranth leaves in water for 2-3 minutes. Make a puree from the leaves.
- ⊙ Take besan in a bowl. Add curd, amaranth leaves puree, sesame seeds and warm water and mix into a smooth batter. Avoid lumps. Add sugar and salt and mix again.
- ⊙ Just before steaming add ¼ tsp of fruit salt to a batter and mix well with the batter.
- ⊙ Heat the steamer for at least 4-5 minutes. Grease a thali and add lemon juice in it.
- ⊙ Pour batter into the greased thali and place it in the steamer.
- ⊙ Cover with the lid and steam for ten minutes. When a little cool, cut into squares and keep in a serving bowl/plate.
- ⊙ Heat oil in a small pan. Add mustard seeds, sesame seeds, asafoetida and green chilli. Remove and pour this tempering over the dhoklas.
- ⊙ Your delicious haryali khaman dhokla is ready to be served.



Murmura Chaat

Cost: Rs. 3.97



Energy **153**kcal

Protein **5.1**g

Dietary fibre **4**g

Carbohydrate **23**g

Fat **4.1**g

Iron **3.2**mg

Vitamin C **31**mg

Vitamin A **376** mcg

Calcium **127**mg



Serving size - 85 g

Ingredients

- ☉ **Puffed rice/murmura** 20g
- ☉ **Soaked Bengal gram dal** 10g
- ☉ **Amaranth leaves** 35g
- ☉ **Onion** 20g
- ☉ **Oil** 3ml

Spices and condiments

- ☉ **Salt to taste**
- ☉ **Jeera powder** 1 tsp
- ☉ **Red chilli** 1 tsp
- ☉ **Garam masala** 1 tsp
- ☉ **Turmeric powder** ½ tsp

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 15-20 minutes

Method of preparation

- ☉ Wash the amaranth leaves under running water and finely chop them.
- ☉ Soak the puffed rice/ murmura in water for 2-3 minutes.
- ☉ Boil the soaked dal in water until cooked.
- ☉ In a karahi, heat oil and saute' the onion and amaranth leaves.
- ☉ Now add soaked puffed rice, chana dal, salt to taste, jeera powder, red chilli powder, garam masala and turmeric powder and cook the mixture for some time.
- ☉ Once cooked, place the chaat in a serving plate.
- ☉ Your murmura chaat is ready to be served.

MEAL REPLACEMENT RECIPES



Jowar-Chana Pulao

Cost: Rs. 6.7



Energy **355**kcal

Protein **13.1**g

Dietary fibre **14.7**g

Carbohydrate **56**g

Fat **7.8**g

Iron **14.3**mg

Vitamin C **26**mg

Vitamin A **327**mcg

Calcium **127**mg



Serving size - 250 g

Ingredients

- ⊗ **Jowar** 50g
- ⊗ **Bengal gram dal** 30g
- ⊗ **Amaranth leaves** 30g
- ⊗ **Lotus stem** 15g
- ⊗ **Oil** 5 ml

Spices and condiments

- ⊗ **Jeera powder** ½ tsp
- ⊗ **Red chilli powder** ½ tsp
- ⊗ **Black pepper** ½ tsp
- ⊗ **Turmeric powder** ½ tsp
- ⊗ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 25-30 minutes

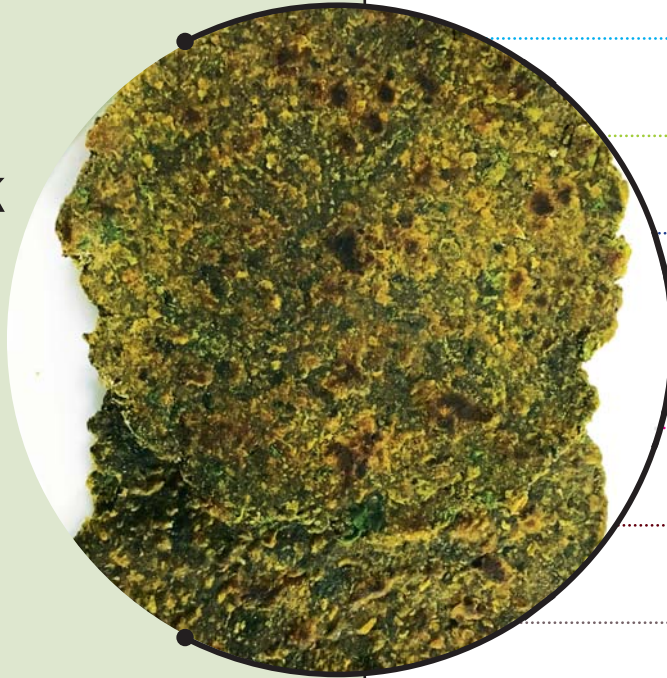
Method of preparation

- ⊗ Wash and soak the Bengal gram dal in water for about 1-2 hours.
- ⊗ Wash and chop amaranth leaves and lotus stem.
- ⊗ In a pressure cooker, heat oil and sauté the chopped vegetables.
- ⊗ Wash jowar and Bengal gram dal and add into the pressure cooker along with the sautéed vegetables.
- ⊗ Now add salt to taste, red chilli, jeera powder, black pepper and turmeric powder.
- ⊗ Cover the pressure cooker and cook the pulao for 15-20 minutes on medium flame.
- ⊗ Once cooked, place the pulao on a serving plate.
- ⊗ Your jowar-chana pulao is ready to be served.



Paushtik Roti

Cost: Rs. 9.15



Energy **318**kcal

Protein **17.1**g

Dietary fibre **14.8**g

Carbohydrate **37**g

Fat **10.3**g

Iron **7.5**mg

Vitamin C **33**mg

Vitamin A **428** mcg

Calcium **446**mg



Serving size - 2 pieces *

Ingredients

- ☉ **Wheat flour whole** 25g
- ☉ **Ragi flour** 25g
- ☉ **Soya flour** 25g
- ☉ **Amaranth leaves green** 40g
- ☉ **Sesame seeds black** 10g
- ☉ **Oil** (for greasing)

Spices and condiments

- ☉ **Ajwain** ½ tsp
- ☉ **Kasuri methi** ½ tsp
- ☉ **Red chilli powder** ½ tsp
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

* 55 g each piece



Preparation time - 20-25 minutes

Method of preparation

- ☉ Wash and chop the amaranth leaves. for 5-10 minutes.
- ☉ In a bowl mix whole wheat flour, ragi flour, soya flour, chopped amaranth leaves, roasted sesame seeds
- ☉ Now mix them well with water to form soft dough.
- ☉ Keep the dough aside to rest
- ☉ Now, make small, equal sized dough balls and make chapattis.
- ☉ Cook well on both the sides.
- ☉ Your paushtik roti is ready to be served.



Daliya Pulao

Cost: Rs. 10.25



Energy **351**kcal

Protein **15**g

Dietary fibre **13**g

Carbohydrate **52**g

Fat **8.3**g

Iron **7.3**mg

Vitamin C **31**mg

Vitamin A **471**mcg

Calcium **150**mg



Serving size - 200 g

Ingredients

- ☉ **Daliya** 40g
- ☉ **Bengal gram dal** 40g
- ☉ **Lotus root** 30g
- ☉ **Fenugreek leaves** 40g
- ☉ **Oil** 5ml

Spices and condiments

- ☉ **Red chilli powder** ½ tsp
- ☉ **Turmeric powder** ½ tsp
- ☉ **Garam masala** ½ tsp
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 20-25 minutes

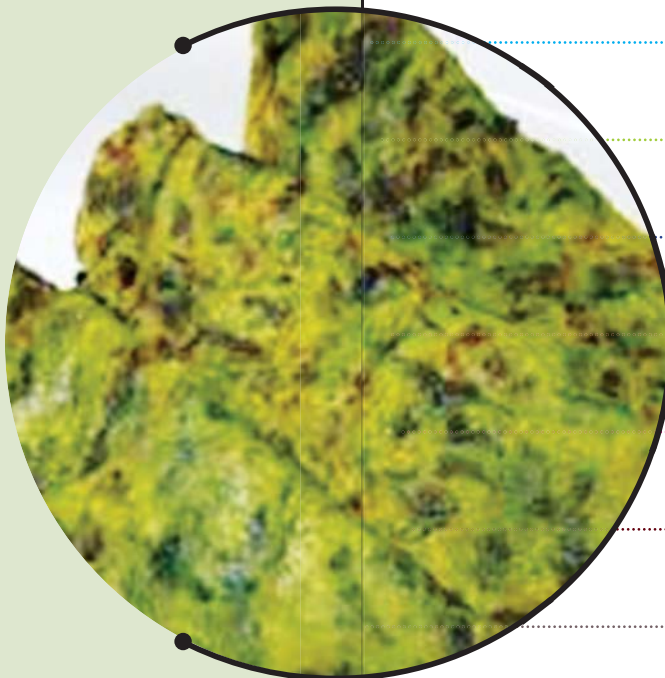
Method of preparation

- ☉ Soak daliya and Bengal gram dal in double the amount of water for 2-4 hours.
- ☉ Wash and chop all the vegetables.
- ☉ In a karahi, heat a little oil and saute' the chopped vegetables.
- ☉ Now add soaked Bengal gram dal, soaked daliya, salt to taste, red chilli powder, turmeric powder and garam masala.
- ☉ Add double the amount of water to the mixture in the karahi, cover with a lid and let it cook for 10-15 minutes.
- ☉ Once cooked, plate the vegetable daliya on a serving plate.
- ☉ Your vegetable daliya is ready to be served.



Soya Uttapam

Cost: Rs. 11.77



Energy **358kcal**

Protein **21.8g**

Dietary fibre **14.4g**

Carbohydrate **18g**

Fat **21.1g**

Iron **7mg**

Vitamin C **42mg**

Vitamin A **541mcg**

Calcium **319mg**



Serving size - 3 pieces *

Ingredients

- ☉ **Semolina (suji)** 15g
- ☉ **Soya flour** 50g
- ☉ **Curd** 20g
- ☉ **Amaranth leaves** 50g
- ☉ **Oil** 10ml

Spices and condiments

- ☉ **Red chilli powder** 1/2 tsp
- ☉ **Jeera powder** 1/2 tsp
- ☉ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml

* 60 g each piece



Preparation time - 20-25 minutes

Method of preparation

- ☉ Wash, blanch and puree amaranth leaves.
- ☉ In a bowl make a thick batter of suji, soya flour, puréed amaranth leaves, salt, red chilli powder and jeera powder.
- ☉ Now, take a spoonful of batter and pour it on the preheated griddle and spread it in a circular shape. Cook well on both the sides.
- ☉ Your delicious soya uttapam is ready to be served.



Soya Poha

Cost: Rs. 11.1



Energy

358kcal

Protein

14.1g

Dietary fibre

11.2g

Carbohydrate

37g

Fat

16.5g

Iron

10mg

Vitamin C

4mg

Vitamin A

0mcg

Calcium

85mg



Serving size - 175 g

Ingredients

- ⊗ **Soya granules** 30g
- ⊗ **Rice flakes** 30g
- ⊗ **Onion** 50g
- ⊗ **Lotus stem** 10g
- ⊗ **Oil** 10ml

Spices and condiments

- ⊗ **Lemon juice** 3-4 drops
- ⊗ **Turmeric powder** ½ tsp
- ⊗ **Red chilli powder** ½ tsp
- ⊗ **Green chilli** 1 chilli
- ⊗ **Mustard seeds** ½ tsp
- ⊗ **Curry leaves** 5-6 leaves
- ⊗ **Salt to taste**

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 15-20 minutes

Method of preparation

- ⊗ Wash and chop vegetables and keep them aside. rice flakes, salt, red chilli powder and turmeric powder.
- ⊗ Soak the rice flakes in water for 2-3 minutes and keep them aside. ⊗ Stir the ingredients well for 2-3 minutes.
- ⊗ Soak the soya granules in hot water for 5-10 minutes. ⊗ Place the soya poha in bowl and squeeze lemon over it.
- ⊗ Heat oil in karahi and splutter mustard seeds, curry leaves and chopped green chilli. ⊗ Your soya poha is ready to be served.
- ⊗ Add chopped vegetables to the karahi and saute' them.
- ⊗ Add soaked soya granules,



Vegetable Seviyan

Cost: Rs. 7.4



Energy **368**kcal

Protein **14**g

Dietary fibre **12.6**g

Carbohydrate **42**g

Fat **15.3**g

Iron **9.1**mg

Vitamin C **2**mg

Vitamin A **0**mcg

Calcium **73**mg



Serving size - 230 g

Ingredients

- ⊗ **Vermicelli** 45g
- ⊗ **Soya granules** 25g
- ⊗ **Lotus root** 10g
- ⊗ **Onion** 20g
- ⊗ **Oil** 10ml

Spices and condiments

- ⊗ **Asafoetida** ½ tsp
- ⊗ **Mustard seeds** ½ tsp
- ⊗ **Ginger** 1 cm
- ⊗ **Garlic** 1-2 cloves
- ⊗ **Green chilli** 1 chilli
- ⊗ **Lemon juice** 3-4 drops
- ⊗ **Coriander leaves**
(for garnishing) 2-3 sprigs

— 1 teaspoon (tsp) = 5ml

— 1 tablespoon (tbsp) = 15ml



Preparation time - 20-25 minutes

Method of preparation

- ⊗ Roast the vermicelli to a golden brown colour.
- ⊗ Soak the soya granules in hot water for 5-10 minutes.
- ⊗ Wash and chop onion, lotus root, coriander leaves, ginger, garlic and green chilli.
- ⊗ Heat the oil in karahi, fry the asafoetida, splutter the mustard seeds.
- ⊗ Add the finely chopped ginger, onion, lotus root, garlic and green chilli and fry lightly and then add the roasted vermicelli soaked soya granules. Then, add water and bring to boil, add the seasoning and cook on a very low flame.
- ⊗ Cook till the vermicelli is dry. Serve hot, garnished with coriander leaves and a few drops of lemon juice.



HOME AUGMENTED IRON RICH SNACKS/RECIPES



Rationale

Anemia, a manifestation of under-nutrition and poor dietary intake of iron is a serious public health problem among pregnant women, infants, young children and adolescents. It is defined as hemoglobin concentration below established cut-off levels in the blood. The recent National Family Health Survey (NFHS-4) 2015-16 suggests a high prevalence of anemia across all age groups i.e. 58% among children 6-59 months, 54% among adolescent girls (15-19 years), 53% among women of reproductive age (15-49 years) and 58% among lactating women. The decline in prevalence rates from the last NFHS-3 has been extremely low in most age groups.

Iron deficiency is thought to be the most common cause of anemia globally, but other nutritional deficiencies (including folate and vitamin B₁₂), acute and chronic inflammation, parasitic infections, and inherited or acquired disorders that affect hemoglobin synthesis, red cell production or red blood cell survival also cause anemia. Iron deficiency anemia results in impaired cognitive and motor development in children and decreased work capacity in adults. The effects are most

severe in infancy and early childhood. In pregnancy iron deficiency anemia can lead to perinatal loss, prematurity and low birth weight (LBW) babies. It can also adversely affect the body's immune response.

The recommended dietary allowances for iron are 17 mg for an adult man, 21 mg for an adult woman, 35 mg among pregnant women, 21 mg among lactating women and between 21 mg to 32 mg for adolescent groups per day (Table 1).

The present recipes iron-rich snacks have been developed to augment the day's diet providing up to 350 Kcal, 13g protein and 7-9 mg of iron per snack.

Vitamin A values depicted are retinol equivalents which have been computed using the formula: Beta carotene/8 + Retinol.



The Iron-Rich Recipes in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.

Table 1.

Recommended dietary requirements for iron per day

AGE GROUP	IRON REQUIREMENTS (mg/day)
ADULT MAN	17
ADULT WOMAN	21
PREGNANT WOMAN	35
LACTATING WOMAN	21
CHILDREN (1-3 YEARS)	09
CHILDREN (4-6 YEARS)	13
CHILDREN (7-9 YEARS)	16
BOYS (10-12 YEARS)	21
GIRLS (10-12 YEARS)	27
BOYS (13-15 YEARS)	32
GIRLS (13-15 YEARS)	27
BOYS (16-17 YEARS)	28
GIRLS (16-17 YEARS)	26



FRESHLY PREPARED RECIPES



Soya Poha

COST: ₹11.6



Energy **358**kcal

Protein **14.1**g

Dietary fibre **11.2**g

Carbohydrate **37**g

Fat **16.5**g

Iron **10**mg

Vitamin C **4**mg

Vitamin A **0**mcg

Calcium **126**mg



Serving size: 175 gm

Ingredients

- ✔ Soya granules-30g
- ✔ Rice flakes-30g
- ✔ Onion-50g
- ✔ Lotus stem-10g
- ✔ Oil-10ml

Spices and Condiments:

- ✔ Green chill-1 (Optional)
- ✔ Mustard seeds- 1 tsp
- ✔ Curry leaves- 5-6
- ✔ Turmeric powder- 1/4 tsp
- ✔ Red chilli powder- 1/4 tsp
- ✔ Salt as required
- ✔ Lemon juice-1tsp



Preparation time: 15-20 minutes

Method of preparation

- ✔ Wash and chop the vegetables and keep them aside.
- ✔ Soak the rice flakes in water for 2-3 minutes and keep it aside.
- ✔ Soak the soya granules in hot water for 5-10 minutes and drain the water.
- ✔ Heat oil in a karahi and splutter mustard seeds, curry leaves, chopped green chilli.
- ✔ Now add chopped vegetables to the karahi and saute' them.
- ✔ Add soaked soya granules, rice flakes, salt, turmeric powder and red chilli powder.
- ✔ Stir the ingredients well for 2-3 minutes.
- ✔ Plate the soya poha in bowl and squeeze lemon over it.
- ✔ Your soya poha is ready to be served.





Paushtik Cheela

COST: ₹9.48



Energy **360**kcal

Protein **19.4**g

Dietary fibre **6.2**g

Carbohydrate **32**g

Fat **16.8**g

Iron **8**mg

Vitamin C **13**mg

Vitamin A **247**mcg

Calcium **137**mg



Serving size: 145 gm

Ingredients

- ✔ Besan-50g
- ✔ Soya flour-20g
- ✔ Fenugreek leaves-20g
- ✔ French beans-10g
- ✔ Oil-10ml

Spices and Condiments:

- ✔ Green chilli- 1 chilli
- ✔ Ajwain- 1 tsp
- ✔ Salt as per taste
- ✔ Turmeric powder- 1/4 tsp
- ✔ Red chilli powder- 1/4 tsp



Preparation time: 15-20 minutes

Method of preparation

- ✔ Mix together besan and soya flour. Add salt, red chilli powder, ajwain, turmeric powder and enough water to make a pouring batter.
- ✔ Wash all the vegetables under the running water and finely chop the fenugreek leaves, French beans, and green chilli.
- ✔ Mix the batter and the chopped vegetables together.
- ✔ Heat a little oil and pour a large spoon of batter and spread into a thick cheela.
- ✔ Fry on both the sides to golden brown.
- ✔ Your delicious and iron rich snack is ready to be served.





Haryali Bajra Khichdi

COST: ₹5.77



Energy **369**kcal

Protein **16.2**g

Dietary fibre **11.8**g

Carbohydrate **47**g

Fat **12**g

Iron **7**mg

Vitamin C **15**mg

Vitamin A **170**mcg

Calcium **73**mg



Serving size: 275 gm

Ingredients

- ✓ Bajra-35g
- ✓ Bengal gram dal-30g
- ✓ Lentil dal-20g
- ✓ Spinach-50g
- ✓ Oil-8ml

Spices and Condiments:

- ✓ Cumin seeds-1/2 tsp
- ✓ Turmeric powder- 1/4 tsp
- ✓ Red chilli powder-1/2 tsp
- ✓ Salt to taste



Preparation time: 20-25 minutes

Method of preparation

- ✓ First of all wash the spinach under running water and chop.
- ✓ Soak bajra, Bengal gram dal and lentil dal in water separately for 1-2 hours.
- ✓ Heat the oil and cumin seeds in a kadahi. Add turmeric powder, red chilli powder and salt to taste.
- ✓ Add soaked bajra, Bengal gram dal, lentil dal and chopped spinach. Mix well and pressure cook on a medium flame for 15- 20 minutes.
- ✓ Your nutritious hariyali bajra khichdi is ready to be served.





Vegetable Sevian

COST: ₹11.37



Energy **359**kcal

Protein **12.5**g

Dietary fibre **12**g

Carbohydrate **43**g

Fat **14.4**g

Iron **9**mg

Vitamin C **3**mg

Vitamin A **0**mcg

Calcium **105**mg



Serving size: 230 gm

Ingredients

- ✓ Vermicelli-45g
- ✓ Soya granules-20g
- ✓ Onion-40g
- ✓ Lotus stem-10g
- ✓ Oil-10ml

Spices and Condiments:

- ✓ Garlic-1 clove
- ✓ Mustard seeds-1/2 tsp
- ✓ Red chilli whole- 1 chilli
- ✓ Curry leaves-5-6
- ✓ Salt to taste
- ✓ Lemon juice- 3-4 drops



Preparation time: 20-25 minutes

Method of preparation

- ✓ Roast the vermicelli to a golden brown colour.
- ✓ Wash all the vegetables under running water and chop the lotus stem and onion.
- ✓ Soak soya granules in hot water for 20 minutes and drain and keep it aside.
- ✓ Heat the oil in karahi, splutter the mustard seeds on a medium flame. Then add the whole red chilli, finely chopped curry leaves, lotus stem, garlic, onion and fry lightly.
- ✓ Add the roasted vermicelli and soaked soya granules and stir fry for 2-3 minutes to the karahi.
- ✓ Then, add water and bring to boil, add the seasoning and cook on a low flame.
- ✓ Cook till vermicelli is dry. Add a few drops of lemon juice and serve hot.





Ankurit Dal Chaat

COST: ₹23.05



Energy **338**kcal

Protein **22.2**g

Dietary fibre **32.6**g

Carbohydrate **30**g

Fat **12.8**g

Iron **7**mg

Vitamin C **346**mg

Vitamin A **267**mcg

Calcium **305**mg



Serving size: 220 gm

Ingredients

- ✔ Bengal gram whole-35g
- ✔ Soya granules-30g
- ✔ Guava-150g
- ✔ Carrot - 60g
- ✔ Sesame seeds-10g

Spices and Condiments:

- ✔ Chaat masala-1/2 tsp
- ✔ Red chilli powder-1/4 tsp
- ✔ Lemon juice- 10ml (1/2 lemon)
- ✔ Salt to taste



Preparation time: 10-15 minutes

Method of preparation

- ✔ Wash and soak Bengal gram (whole) dal in water for 1 hour.
- ✔ Drain water from dal and tie it in a muslin cloth. Leave the dal undisturbed for sprouting overnight.
- ✔ Soak the soya granules in warm water for 20 minutes. Drain and squeeze well. Keep them in the same bowl with sprouts.
- ✔ Wash and chop the carrot and guava and keep it aside.
- ✔ Boil the sprouts in water for 5-10 minutes and drain the water from sprouts and keep it aside for cooling.
- ✔ In a medium sized bowl, add chopped carrots, guava, boiled sprouts, soya granules, roasted sesame seeds, red chilli powder, chaat masala and salt and mix well.
- ✔ Squeeze half lemon over the mixture and your chaat is ready.



READY TO EAT



Paushtik Burfi

COST: ₹7.86



Energy **353**kcal

Protein **14.2**g

Dietary fibre **7.3**g

Carbohydrate **34**g

Fat **17.4**g

Iron **10**mg

Vitamin C **15**mg

Vitamin A **180**mcg

Calcium **547**mg



Serving size: 4 pieces*

Ingredients

- ✔ Sesame seeds-35 g
- ✔ Besan-20 g
- ✔ Milk-20 g
- ✔ Spinach-50g
- ✔ Jaggery-20 g

*20 g each



Preparation time: 10-15 minutes

Method of preparation

- ✔ Take spinach and wash it thoroughly. Boil it in water, drain and prepare a puree.
- ✔ In a pan roast besan, sesame seeds separately.
- ✔ In a bowl mix milk with jaggery and pour it slowly into the mix prepared until a thick paste is obtained.
- ✔ Make a small ball out of this paste and spread it on a plate.
- ✔ Once cooled, with the help of a knife cut into any desired shape.
- ✔ Store the burfis in the refrigerator.





Paushtik Ladoo

COST: ₹7.17



Energy **360**kcal

Protein **16.9**g

Dietary fibre **3.2**g

Carbohydrate **46**g

Fat **12**g

Iron **7**mg

Vitamin C **1**mg

Vitamin A **26**mcg

Calcium **208**mg



Serving size: 3 pieces*

Ingredients

- ✓ Besan-50g
- ✓ Sesame seeds-10g
- ✓ Peanuts-10g
- ✓ Jaggery-15g
- ✓ Milk-25ml

*30 g each



Preparation time: 20-25 minutes

Method of preparation

- ✓ Dry roast besan on a medium flame in a karahi till golden brown. Remove from heat.
- ✓ Dry roast sesame seeds and peanuts. Remove the outer skin of peanuts by rubbing them between your palms to peel off the skin.
- ✓ Powder the roasted sesame seeds and peanuts together. And mix them with roasted besan.
- ✓ In a bowl mix milk and jaggery together and add it drop by drop into the mixture to make it moist.
- ✓ Make small ladoos from the mixture and store in an air-tight container (room temperature).





Paushtik Namakpare

COST: ₹7.55



Energy **378**kcal

Protein **21.4**g

Dietary fibre **7.6**g

Carbohydrate **31**g

Fat **18.5**g

Iron **8**mg

Vitamin C **9**mg

Vitamin A **108**mcg

Calcium **123**mg



Serving size: ½ cup*

Ingredients

- ✔ Soya flour-30g
- ✔ Besan-45g
- ✔ Spinach-30g
- ✔ Oil-10ml

Spices and Condiments

- ✔ Ajwain- ½ tsp
- ✔ Red chilli powder - ¼ tsp
- ✔ Salt as per taste

*55 g each



Preparation time: 25 minutes

Method of preparation

- ✔ Take besan and soya flour and mix them together.
- ✔ Take spinach and wash it thoroughly. Boil it in water and prepare a puree.
- ✔ Mix this puree with the flour mixture and add salt, red chilli powder, ajwain and other spices as per your taste.
- ✔ Knead this into a tight dough using oil and little water (if required). Keep aside this kneaded dough (covered with muslin cloth) for 10 minutes.
- ✔ Make small balls out of this dough. Now, flatten the ball (not too thin) with the help of a rolling pin.
- ✔ With the help of knife cut it out into ½ inch strips (both horizontally and vertically).
- ✔ Heat oil in a karahi. Once the oil is heated slow down the flame and add namakpare to this. (Note: oil should not be too hot).
- ✔ Store them in an air tight container.





Cereal Pulse Premix

COST: ₹5.74



Energy **371** kcal

Protein **16.6**g

Dietary fibre **9.2**g

Carbohydrate **61**g

Fat **6.2**g

Iron **7**mg

Vitamin C **0**mg

Vitamin A **7**mcg

Calcium **81**mg



Serving size: 90 g

Ingredients

- ✔ Whole wheat flour, atta-20g
- ✔ Besan-25g
- ✔ Bajra flour-30g
- ✔ Soya flour-15g
- ✔ Jaggery-15g



Preparation time: 15-20 minutes

Method of preparation

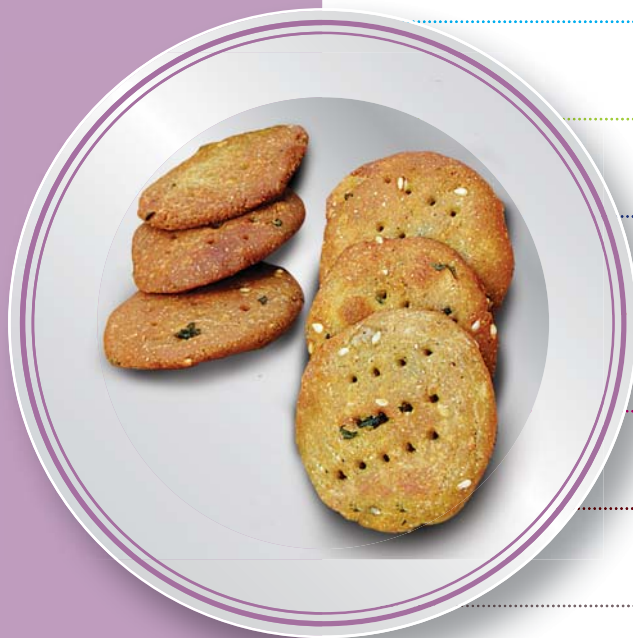
- ✔ Roast the whole wheat flour, besan, bajra flour and soya flour separately in a karahi until light brown in colour and having a pleasant aroma.
- ✔ Once roasted, mix them together and add jaggery and mix the ingredients well and the premix is ready.
- ✔ Take an air-tight container and store the premix.
- ✔ **Reconstitution**-The premix can be reconstituted with half glass of hot water or milk depending on the desired consistency.





Bajra Mathri

COST: ₹7.47



Energy **365**kcal

Protein **14.4**g

Dietary fibre **5.3**g

Carbohydrate **46**g

Fat **13.3**g

Iron **7**mg

Vitamin C **0**mg

Vitamin A **15**mcg

Calcium **117**mg



Serving size: 6 pieces*

Ingredients

- ✓ Besan-45g
- ✓ Bajra flour-10g
- ✓ Whole wheat flour-20g
- ✓ Fenugreek leaves-30g
- ✓ Oil-10g

Spices and Condiments:

- ✓ Ajwain-1/2 tsp
- ✓ Red chilli powder-1/4 tsp
- ✓ Salt- 1/4 tsp

*15 g each



Preparation time: 20-25 minutes

Method of preparation

- ✓ Wash, chop, blanch and puree fenugreek leaves.
- ✓ Take besan, bajra flour and whole wheat flour and sieve it thoroughly. To this, add pureed fenugreek leaves, salt, red chilli powder, and ajwain.
- ✓ Add 1 tsp of oil and little water to knead a tight dough.
- ✓ Keep it aside for 10 minutes (after covering it with muslin cloth).
- ✓ Make 4 small balls and roll them with a rolling pin after dusting flour to the chakla/platform and make a circle of 2.5-3 inch diameter. Using fork, make holes on mathris (both sides).
- ✓ Heat oil in a karahi/frying pan. Once hot slow down the flame and add mathris to it.
- ✓ Fry them until it turns golden brown (6-8 minutes).
- ✓ Store them in an air tight container.





HOME BASED SNACK RECIPES FOR **GESTATIONAL DIABETES MELLITUS**

Rationale

Gestational Diabetes Mellitus (GDM) is defined as Impaired Glucose Tolerance (IGT) with onset or first recognition during pregnancy. Undiagnosed or inadequately treated GDM can lead to significant maternal & fetal complications. To address the urgent need to prevent and minimize maternal and fetal morbidity associated with GDM, Ministry of Health and Family Welfare released a national guideline for provision of universal screening and management of GDM. All Pregnant women who test positive for GDM for the first time should walk/exercise for 30 mins a day and eat carbohydrate controlled balanced meal plan which promotes optimal nutrition for maternal and fetal health. Individualisation in meal plan is important when determining energy requirement and adjustments should be made based on weight change patterns.

Energy requirement during pregnancy includes the normal requirement of adult and an additional requirement for fetal growth plus the increase in the body weight of pregnant woman. Energy requirement does not increase in the first trimester unless a woman is underweight. Energy requirement increases during second and third trimester. Energy intake should be adequate enough to provide appropriate weight gain during pregnancy. For an average weight gain of 10-12 Kg, an addition of 350 kcal/ day above the adult requirement is recommended during second and third trimester.

Carbohydrate foods are essential for a healthy diet of mother and baby. Once digested, carbohydrate foods are broken down to glucose

which goes into blood stream. The type, amount and frequency of carbohydrate intake has a major influence on blood sugar readings. Spreading carbohydrate foods over the day will help to prevent fluctuations in the blood sugar level. It is better to spread carbohydrate foods over 3 small meals and 2-3 snacks each day. Counting the number of carbohydrate serves that a mother eats during the day will help her to eat the right amount of carbohydrate. As a guide, aim should be for 2-3 carbohydrate serves at each major meal and 1-2 carbohydrate serves at each snack. One serve is approximately 15 grams of carbohydrate.

The recommended dietary allowances (RDA) for sedentary women is 1900 kcal and 55g of protein. The additional requirements of energy during pregnancy is 350 kcal of energy and 23 g of protein making their RDA; 2250 Kcal of energy and 78 g of protein. In this case 3 small meals (2-3 carbohydrate serve, i.e. 30-45 gm carbohydrate each meal) and 2-3 snacks (1-2 carbohydrate serve, i.e. 15-30 gm carbohydrate each snack) are recommended in a day.

Each snack provides nearly 300 kcal, >5 gm protein and 1-2 carbohydrate serve (15-30 gm carbohydrate).



The recipes for Gestational Diabetes Mellitus in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.

Table 1.

RECOMMENDED DIETARY ALLOWANCES OF SEDENTARY AND PREGNANT WOMEN

NUTRIENT	RECOMMENDED DIETARY ALLOWANCE OF SEDENTARY WOMAN	ADDITIONAL REQUIREMENTS DURING PREGNANCY	RECOMMENDED DIETARY ALLOWANCE OF PREGNANT WOMEN
ENERGY (kcal)	1900	350	2250
PROTEIN (g)	55	23	78
IRON (mg)	21	14	35
VISIBLE FAT (g)	20	10	30
VITAMIN C (mg)	40	20	60
VITAMIN A (mcg)	600	200	800
CALCIUM (mg)	600	600	1200



FRESHLY PREPARED RECIPES



Sattu kebab

Cost (Rs): 8/-



Nutrient

Energy (Kcal)	292
Protein (g)	11.2
Carbohydrate (g)	28
Fat (g)	14.2
Beta carotene (mcg)	68
Total Fibre (g)	8
Sodium (mg)	12.5
Vitamin C (mg)	10
Iron (mg)	3
Calcium (mg)	35



Serving size: 4 Kebab

Ingredients

- ✔ *Sattu* (Roasted Bengal gram whole): 40g
- ✔ Potato: 20g
- ✔ Onion: 50g
- ✔ Peanuts: 5g
- ✔ Oil: 10g

Spices and condiments

- ✔ Garlic: 5g
- ✔ Green chilli: 1.5g
- ✔ *Kalonji*: 1/4 tsp
- ✔ *Saunf*: 1/4 tsp
- ✔ Salt: 1/2 tsp



Preparation time: 20-25 minutes

Method of preparation

- ✔ In a bowl add *sattu*, chopped onion, boiled potato, coarsely ground peanuts, chopped green chilli, garlic (grated), *saunf*, *kalonji* and salt.
- ✔ Mix them well.
- ✔ Make kebab shapes.
- ✔ In a flat heavy based pan add little oil and roast the kebabs for 5 minutes.





Karela Thepla

Cost (Rs): 4/-



Nutrient

Energy (Kcal)	281
Protein (g)	6.8
Carbohydrate (g)	30
Fat (g)	14
Beta carotene (mcg)	55
Fibre (g)	7
Sodium (mg)	6.7
Vitamin C (mg)	12
Iron (mg)	3.1
Calcium (mg)	21



Serving size: 2 Thepla

Ingredients

- ✔ Bajra flour: 25g
- ✔ Whole wheat flour: 15g
- ✔ Besan: 10g
- ✔ *Karela* (Bitter gourd): 25g
- ✔ Oil: 12g

Spices and condiments

- ✔ Garlic: 5g
- ✔ Turmeric powder: 1/2 tsp
- ✔ Chilli powder: 1/2 tsp
- ✔ Coriander powder: 1/2 tsp
- ✔ Whole coriander: 1/4 tsp
- ✔ Dry *methi* leaves: 2g
- ✔ Salt: 1/2 tsp



Preparation time: 15-20 minutes

Method of preparation

- ✔ Wash bitter gourd, remove the seeds, grind bitter gourd and mix with all the ingredients in a deep bowl and knead into a semi-stiff dough using enough water and knead well.
- ✔ Divide the dough into small portions and roll each portion using a little whole wheat flour for rolling.
- ✔ Heat a non-stick *tava* (griddle) and cook them using oil, till golden brown spots appear on both sides.
- ✔ Serve immediately.





Lauki ki burfi

Cost (Rs): 18/-



Nutrient

Energy (Kcal)	328
Protein (g)	7.9
Carbohydrate (g)	21
Fat (g)	23.7
Beta carotene (mcg)	320
Fibre (g)	8.8
Sodium (mg)	19.4
Vitamin C (mg)	4
Iron (mg)	2.3
Calcium (mg)	80



Serving size: 6 Pieces

Ingredients

- ✔ *Lauki* (Bottle gourd): 30g
- ✔ Coconut powder: 25g
- ✔ Milk: 40ml
- ✔ Bengal gram flour: 20g
- ✔ Dates: 10g
- ✔ Oil: 5g

Spices and condiments

- ✔ Cardamom: 2.5g



Preparation time: 20-25 minutes

Method of preparation

- ✔ Put a deep-bottomed and heavy based pan on medium flame and add water in it. Bring the water to a boil and then add grated bottle guard. Stir to mix well and let it simmer for about 10-15 minutes.
- ✔ Roast Bengal gram flour in another pan to light brown colour.
- ✔ Add coconut powder, milk, chopped dates and steamed bottle gourd in the pan and stir, cook well till the milk is absorbed by the bottle gourd and thickens in consistency.
- ✔ Add cardamom powder. Stir to mix once again.
- ✔ Take a large plate and grease with oil. Once the milk is absorbed completely, turn off the burner and transfer the prepared material into the plate.
- ✔ Keep it aside to cool at room temperature.
- ✔ Cool the mixture till set or refrigerate for one hour. Cut into desired shapes and sizes.
- ✔ Serve immediately.





Roasted Channa Murmura Chaat

Cost (Rs): 10/-



Energy (Kcal)	281
Protein (g)	9.3
Carbohydrate (g)	32
Fat (g)	11.9
Beta carotene (mcg)	83
Fibre (g)	10.3
Sodium (mg)	11.0
Vitamin C (mg)	13
Iron (mg)	3.4
Calcium (mg)	60



Serving size: 1 big bowl

Ingredients

- ✓ Roasted *channa*: 30g
- ✓ Puffed rice: 20g
- ✓ Onion: 25g
- ✓ Green peas: 25g
- ✓ Mustard oil: 10g

Spices and condiments

- ✓ Green chilli: $\frac{1}{4}$
- ✓ Salt: $\frac{1}{4}$



Preparation time: 5-10 minutes

Method of preparation

- ✓ Combine roasted *channa*, puffed rice, chopped onion, raw green peas, green chilli
- ✓ Add mustard oil and salt
- ✓ Serve





Bajra ke Ladoo

Cost (Rs): 11/-



Nutrient

Energy (Kcal)	307
Protein (g)	5.8
Carbohydrate (g)	31
Fat (g)	17
Beta carotene (mcg)	304
Fibre (g)	6.1
Sodium (mg)	3.9
Vitamin C (mg)	2
Iron (mg)	2.8
Calcium (mg)	24



Serving size: 4

Ingredients

- ✓ Bajra atta: 30g
- ✓ Besan: 10g
- ✓ Oil: 15g
- ✓ Seedless dates: 10g
- ✓ Water: 75 ml

Spices and condiments

- ✓ Cardamom: 2.5g



Preparation time: 15-20 minutes

Method of preparation

- ✓ Heat oil in a non-stick pan. Add dates and sauté for 30 seconds. Add bajra atta, mix and cook on low heat for 2 minutes.
- ✓ Add cardamom powder.
- ✓ Add water, mix the above mixture.
- ✓ Cook the mixture for 10 minutes.
- ✓ Roll the above mixture in small balls.
- ✓ Serve.





RECIPES FOR HYPERTENSION

Rationale

High blood pressure can cause serious damage to health. It is caused due to hardening of arteries, which results in decrease of blood flow and oxygen to the heart. This reduced flow can cause – chest pain, heart failure and heart attack. Behaviour and lifestyle-related factors can put people at a higher risk for developing high blood pressure. This includes being overweight, not physically active, smoking, excessive consumption of alcohol, high fat and low fiber diet.

The recipes discussed in this booklet are for pregnant women suffering from hypertension which will help them make better food choices. These recipes are low in fat and high in dietary fiber. Salt is substituted with different herbs and spices to enhance flavor and taste of snack. Each recipe provides about 100-150Kcal, >5g of protein and almost 1/8th of the micronutrients requirement.

The Recommended Dietary Allowance (RDA) for sedentary women is 1900 Kcal. In case of pregnant women an addition of 350 Kcal is required as mentioned in Table 1. The nutritional requirements from the meal have been estimated by reduction of 500 Kcal from the RDA for pregnant

women i.e., 2250 Kcal which comes out to be 1750 Kcal for obese pregnant women suffering from hypertension. In this case, one meal replacement (350 Kcal) and 2 snack replacements (150 Kcal each) are recommended with 2 main meals (approximately 500 kcal each). For non- obese pregnant women, it is recommended to follow normal RDA.



The recipes for hypertension in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.

Table 1.

Recommended dietary allowances

NUTRIENT	RECOMMENDED DIETARY ALLOWANCE OF SEDENTARY WOMAN	ADDITIONAL REQUIREMENTS DURING PREGNANCY	RECOMMENDED DIETARY ALLOWANCE OF PREGNANT WOMEN
ENERGY (kcal)	1900	350	2250
PROTEIN (g)	55	23	78
IRON (mg)	21	14	35



FRESHLY PREPARED RECIPES



Dal bajra parantha with curd

Cost (Rs): 6



Energy (Kcal) 227

Protein (g) 8.6

Carbohydrate (g) 29

Fat (g) 8.1

Beta carotene (mcg) 282

Total Fibre (g) 5.1

Sodium (mg) 22.8

Vitamin A (mcg) 51

Vitamin C (mg) 4

Iron (mg) 2.4

Calcium (mg) 99



Serving size:
1 (Portion Size-1 parantha)



Preparation time: 15 minutes



Ingredients

- ✔ Moong dal: 10g
- ✔ Whole wheat flour: 10g
- ✔ Bajra flour: 10g
- ✔ Onion: 5g
- ✔ Spinach - 10g
- ✔ Cooking oil: 2.5g
- ✔ Curd: 40g

Condiments and Spices

- ✔ 1/8 Tsp Turmeric
- ✔ 1/8 Tsp Kashmiri red chilli powder
- ✔ 1/8 tsp amchur
- ✔ 1/8tsp garam masala
- ✔ 1/8 Tsp jeera powder
- ✔ 1/8 tsp ajwain
- ✔ 1 sprig of coriander leaves
- ✔ ¼ tsp chopped ginger and garlic

Method of preparation

- ✔ Boil the *dal* for 10 minutes or till moong dal turns soft.
- ✔ Mash the cooked dal to a fine paste and add chopped onions, turmeric, chilli powder, *amchur*, *garam masala*, *jeera powder*, *ajwain*, chopped coriander leaves, ginger and garlic to the paste.
- ✔ Mix well making sure all the spices are combined well.
- ✔ Take wheat flour, *bajra* flour in a medium size bowl and mix well. Add water as required and knead smooth dough. Add the *dal* mixture into it and knead to make soft dough. Cover it with a wet cloth and keep it aside for 10 minutes.
- ✔ Take one ball sized dough and coat it with dry flour. Place it over rolling board and roll it out into a small circle.
- ✔ Coat it with dry wheat flour and roll it out into big circle. Do not roll it out into very thin *parantha*.
- ✔ On a hot *tawa* place the rolled *parantha* and cook both sides brushing oil.
- ✔ Serve hot *dal bajra parantha* with plain curd.



Bajra besan cheela

Cost (Rs): 3



Energy (Kcal) 149

Protein (g) 5.5

Carbohydrate (g) 16

Fat (g) 6.6

Beta carotene (mcg) 306

Total Fibre (g) 5

Sodium (mg) 10.6

Vitamin A (mcg) 38

Vitamin C (mg) 1

Iron (mg) 1.9

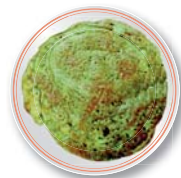
Calcium (mg) 16



Serving size:
1 (Portion – 2 cheela)



Preparation time: 15 minutes



Ingredients

- ✓ Bajra: 10g
- ✓ Besan: 20g
- ✓ Carrot: 10g
- ✓ Oil: 5g

Condiments and Spices

- ✓ Ajwain: 1/8 tsp
- ✓ Red chilli powder: 1/8 tsp
- ✓ Amchur: 1/4 tsp
- ✓ Turmeric: 1/8 tsp
- ✓ Ginger: ¼ tsp

Method of preparation

- ✓ Mix together *besan* and *bajra* flour. Add red chilli powder, *ajwain*, *amchur*, turmeric powder and enough water to make a pouring batter.
- ✓ Wash carrots and ginger under the running water and grate it and mix with the batter.
- ✓ Heat a little oil on a hot tawa and pour a large spoon of batter and spread into a thick *cheela*.
- ✓ Cook on both the sides to golden brown.
- ✓ Your delicious *cheela* is ready to be served.



Dal poha

Cost (Rs): 3



Energy (Kcal)	157
Protein (g)	5.1
Carbohydrate (g)	22
Fat (g)	4.90
Beta carotene (mcg)	1
Total Fibre (g)	2.6
Sodium (mg)	3.6
Vitamin A (mcg)	0
Vitamin C (mg)	1
Iron (mg)	1.6
Calcium (mg)	12



Serving size:
1 (Portion Size -1 big bowl)



Preparation time: 20 minutes



Ingredients

- ✓ Rice flakes: 20g
- ✓ Onion: 10g
- ✓ Black gram dal (dehusked): 10g
- ✓ Peanuts: 5g
- ✓ Oil: 2.5g

Condiments and Spices

- ✓ ¼ coriander seed powder
- ✓ 2-3 curry leaves
- ✓ 1/8 tsp mustard seeds
- ✓ 1/8 turmeric powder
- ✓ 1/8 red chilli powder
- ✓ ½ lemon

Method of preparation

- ✓ Soak rice flakes in clean water.
- ✓ Boil black gram *dal* till tender.
- ✓ On a hot *tawa* roast the peanuts and chop the onions.
- ✓ Heat oil in a pan and add mustard seeds and curry leaves.
- ✓ After mustard seeds splutter, add chopped onions, soaked rice flakes, boiled *dal* and spices. Sprinkle water if needed.
- ✓ Sprinkle lemon juice and serve hot.



Besan and spinach para

Cost (Rs): 3



Energy (Kcal) 156

Protein (g) 5.5

Carbohydrate (g) 12

Fat (g) 9.4

Beta carotene (mcg) 172

Total Fibre (g) 3.9

Sodium (mg) 7.33

Vitamin A (mcg) 21

Vitamin C (mg) 2

Iron (mg) 1.7

Calcium (mg) 16



Serving size:
1 (Portion size – 8 pieces)



Preparation time: 25-30 minutes



Ingredients

- ✔ Besan: 25g
- ✔ Spinach: 5g
- ✔ Oil: 8g

Condiments and Spices

- ✔ 1/8 tsp chilli powder
- ✔ 1/8 tsp carom seeds (ajwain)
- ✔ pinch of asafoetida (hing)
- ✔ ¼ tsp of amchur

Method of preparation

- ✔ Wash the spinach thoroughly and finely chop it.
- ✔ Combine the besan, spinach, carom seeds, asafoetida, chilli powder and amchur and little oil in a bowl, mix well and knead into a smooth dough adding enough water as required.
- ✔ Cover with damp cloth and set aside at least for fifteen minutes.
- ✔ Knead the dough for another minute and make a flat ball shape.
- ✔ Roll them thin and prick them with a fork all over the rolled dough to avoid puffing.
- ✔ Cut each of the rolled dough into about 1 inch wide and 1.5 inch long pieces.
- ✔ Heat the oil in a frying pan on medium heat.
- ✔ Make sure to place just enough *paare* so you can turn them over easily when frying.
- ✔ Shallow fry the *paare* until both sides are light golden-brown.
- ✔ Cool and serve.



Lotus stem tikki

Cost (Rs): 10



Energy (Kcal) 148

Protein (g) 5.6

Carbohydrate (g) 17

Fat (g) 5.8

Beta carotene (mcg) 26

Total Fibre (g) 5.4

Sodium (mg) 14.6

Vitamin A (mcg) 3

Vitamin C (mg) 17

Iron (mg) 2.8

Calcium (mg) 30



Serving size: 1
(portion size -2 tikkis)



Preparation time: 20-30 minutes



Ingredients

- ✔ Lotus stem: 50g
- ✔ Potato: 15g
- ✔ Peanuts: 5g
- ✔ Besan: 15g
- ✔ Cooking oil: 2.5g

Condiments and Spices

- ✔ ¼ tsp amchur
- ✔ 1 sprig coriander leaves
- ✔ ¼ tsp red chilli powder
- ✔ ¼ tsp garam masala

Method of preparation

- ✔ Peel, wash and dice the lotus stem. Boil the lotus stem and potato until soft and tender.
- ✔ Grind the boiled lotus stem and the roasted peanuts to smooth paste.
- ✔ In a bowl add the ground mixture and mash the boiled potato, and spices.
- ✔ Adjust the consistency by mixing with *besan*.
- ✔ Shape the mixture into round *tikkis*.
- ✔ Add oil on the pan and cook the *tikkis* till golden brown.



RECIPES FOR **TUBERCULOSIS**

Rationale

Tuberculosis (TB) is a contagious disease majorly related to poverty, undernutrition and poor immune function. Undernutrition is related to TB as it increases the progression of the disease. Undernutrition at the population level contributes to an estimated 55% of annual TB incidence in India. TB leads to weight loss, wasting and worsening of nutritional status.

Energy requirements are likely to increase by 10% to maintain body weight and physical activity in adults. For protein requirements, data is insufficient to support an increase in protein intake thus the normal requirements for health i.e. 12% to 15% of total energy intake is recommended (WHO, 2003). Patients with TB also suffer from micronutrient deficiency, such as iron, folate, vitamin A, zinc and vitamin D. These micronutrient deficiencies are critical as they can impair the immune system. Hence, the patients require adequate intake of micronutrients daily as per RDA (WHO, 2017).

The additional requirements of energy during pregnancy is 350 kcal of energy and 23 g of protein making their RDA: 2250 Kcal of energy and 78 g of protein. For a sedentary

pregnant women suffering from TB, an addition of 10% calories increases the requirement to 2475 kcal and protein 78 gm (12.6% of total energy intake). In this case 4 major meals (500 kcal energy, 15 gm protein each) and 2 freshly prepared snacks (250 kcal energy and 9 gm protein each) are recommended in a day.



The Recipes for TB in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.

Table 1.

Recommended dietary allowances of sedentary and pregnant women

NUTRIENT	RECOMMENDED DIETARY ALLOWANCE OF SEDENTARY WOMAN	ADDITIONAL REQUIREMENTS DURING PREGNANCY	RECOMMENDED DIETARY ALLOWANCE OF PREGNANT WOMEN
ENERGY (k)	1900	350	2250
PROTEIN (g)	55	23	78
IRON (mg)	21	14	35
VISIBLE FAT (g)	20	10	30
VITAMIN C (mg)	40	20	60
VITAMIN A (mcg)	600	200	800
CALCIUM (mg)	600	600	1200



FRESHLY PREPARED RECIPES



Sprouts Upma

Cost (Rs): 6



Energy (Kcal) 251

Protein (g) 8.5

Carbohydrate (g) 36

Fat (g) 7.4

Beta carotene (mcg) 16

Vitamin B6 (mg) 0.1

Vitamin A (mcg) 2

Vitamin C (mg) 3

Iron (mg) 2

Calcium (mg) 25



Serving size:
1 (Portion size – 1 big bowl)



Preparation time: 15 minutes



Ingredients

- ✔ Semolina (Sooji): 45g
- ✔ Green gram sprouts: 20g
- ✔ Peanuts: 5g
- ✔ Oil: 5g
- ✔ Water: 125ml

Condiments and Spices

- ✔ ¼ tsp mustard seeds
- ✔ ¼ tsp curry leaves
- ✔ 1/8 tsp red chilli powder
- ✔ 1 sprig coriander (chopped)
- ✔ Salt to taste
- ✔ Lime juice as per taste

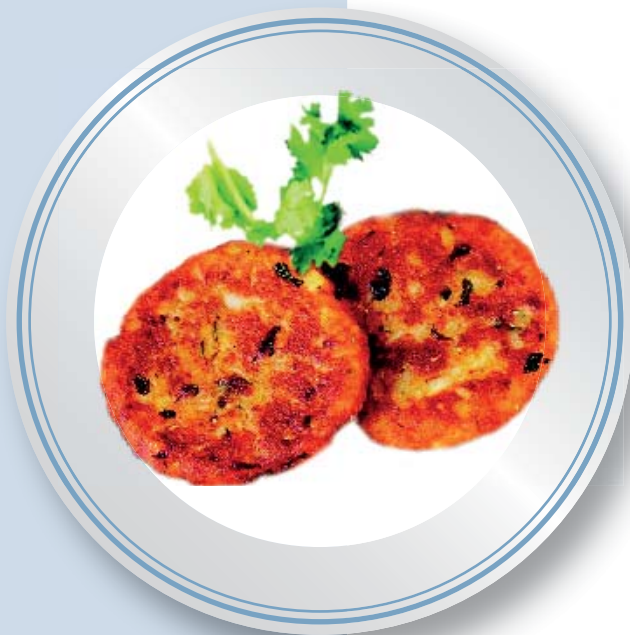
Method of preparation

- ✔ On a heated pan dry roast the peanuts and semolina separately.
- ✔ Heat some oil in a pan on medium flame and add mustard seeds to it.
- ✔ Add curry leaves and red chilli powder and chopped green chillies to the heated oil.
- ✔ Saute for a while and then add moong sprouts (you can also boil it before) to it. Mix well and add roasted semolina (sooji) to it.
- ✔ Saute for a while and then add salt and peanuts.
- ✔ Add 125 ml water to the mixture and cook. Cook until the water gets absorbed.
- ✔ Quick 'Sprouts Upma' is ready to be served. Garnish with coriander leaves.
- ✔ Lime juice can be added as per taste.



Paushtik Tikki

Cost (Rs): 5



Energy (Kcal) 256

Protein (g) 10

Carbohydrate (g) 27.3

Fat (g) 10.3

Beta carotene (mcg) 556

Vitamin B6 (mg) 0.1

Vitamin A (mcg) 70

Vitamin C (mg) 18

Iron (mg) 2.6

Calcium (mg) 38



Serving size:
1 (portion – 2 tikki)



Preparation time: 25 minutes



Ingredients

- ✔ Potato: 50g
- ✔ Bengal gram dal (dehusked): 20g
- ✔ Spinach: 20g
- ✔ Peanuts: 10g
- ✔ Rice flakes: 5g
- ✔ Refined wheat flour: 10g
- ✔ Oil: 5g

Condiments and Spices

- ✔ 1/8 tsp red chilli powder
- ✔ 1/8 tsp coriander powder
- ✔ 1/8 tsp turmeric powder
- ✔ Salt to taste

Method of preparation

- ✔ Boil the potato till soft and pressure cook the Bengal gram dal and spinach with ½ tsp of salt till soft and tender.
- ✔ Roast and grind peanuts to a coarse powder.
- ✔ Strain dal and spinach and grind it to a thick paste.
- ✔ Add the boiled potatoes, dal, spinach, peanuts and add half bread and make a mixture.
- ✔ Add the salt, red chilli powder, turmeric powder, coriander powder into the mixture.
- ✔ Make it in small round patty as a tikki.
- ✔ Heat oil on a pan and fry tikkis on both sides till golden brown.



Dal Vada

Cost (Rs): 6



Energy (Kcal) 258

Protein (g) 10.8

Carbohydrate (g) 21.9

Fat (g) 13.5

Beta carotene (mcg) 818

Vitamin B6 (mg) 0.1

Vitamin A (mcg) 102

Vitamin C (mg) 10

Iron (mg) 3.2

Calcium (mg) 50



Serving size: 1 (portion size – 3 small vadas)



Preparation time: 30 minutes



Ingredients

- ✓ Bengal gram dehusked: 20g
- ✓ Black gram dehusked: 20g
- ✓ Spinach: 30g
- ✓ Onion: 10g
- ✓ Peanuts: 5 g
- ✓ Cooking oil: 10g

Condiments and Spices

- ✓ 2-3 curry leaves
- ✓ 1 sprig coriander
- ✓ Salt to taste
- ✓ Green chilli: 1 small size
- ✓ Ginger: 1cm

Method of preparation

- ✓ Wash and soak *dals* in water for 2 hours, leave aside to drain for atleast half an hour. Transfer soaked *dal* to a colander and drain the water.
- ✓ Grind until medium coarse texture. It should be okay if a few whole dal remains (this would give a nice crunch to *vada*). Do not add water while grinding.
- ✓ Wash the vegetables thoroughly. Finely chop the onions, ginger, green chilli and spinach.
- ✓ Transfer it to a medium bowl. Add finely chopped onion, ginger, spinach, curry leaves, coriander leaves, green chilli and salt.
- ✓ Mix all ingredients well. Mixture should not be very moist or dry. If the mixture is too crumbly it will be difficult to make *vadas*.
- ✓ Grease your palms with oil. Take each portion of mixture, give it a round lemon like shape and flatten it a little by pressing it in-between your palms and give a pattie like shape. Place all *vadas* in a plate.
- ✓ Heat oil in a frying pan over medium flame. When oil is medium hot, cook vadas until golden brown and crispy.



Ragi Porridge

Cost (Rs): 14



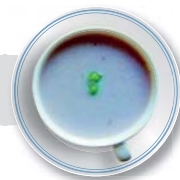
Energy (Kcal)	252
Protein (g)	10
Carbohydrate (g)	26
Fat (g)	11.7
Beta carotene (mcg)	0
Vitamin B6 (mg)	0.18
Vitamin A (mcg)	45
Vitamin C (mg)	4
Iron (mg)	1.4
Calcium (mg)	348



Serving size: 1
(portion size – 1 big bowl)



Preparation time: 15 minutes



Ingredients

- ✔ *Ragi*: 20g
- ✔ Milk powder: 10g
- ✔ Milk: 150 ml
- ✔ Peanuts: 5g
- ✔ Sugar: 5g

Condiments

- ✔ 1 *elaichi*

Method of preparation

- ✔ Collect all the ingredients and check for the expiry or best before date on the milk powder sachet to ensure food safety.
- ✔ In a heated pan dry roast *ragi*.
- ✔ In a deep pan mix *ragi*, milk powder and sugar with 150 ml of milk. Mix well taking care that there are no lumps.
- ✔ Add roasted and ground peanuts and 1 *elaichi*.
- ✔ Cook on a medium flame, while stirring continuously.
- ✔ Adjust consistency with water.
- ✔ Serve warm.



Ragi Groundnut laddoo

Cost (Rs): 10



Energy (Kcal) 297

Protein (g) 9.4

Carbohydrate (g) 19.7

Fat (g) 14.8

Beta carotene (mcg) 8

Vitamin B6 (mg) 0.18

Vitamin A (mcg) 1

Vitamin C (mg) 1

Iron (mg) 4

Calcium (mg) 278



Serving size:

1 (Portion size : 3 ladoos)



Preparation time: 25 minutes



Ingredients

- ✔ Ragi: 20g
- ✔ Groundnut: 20g
- ✔ Gingelly seeds: 15g
- ✔ Sugar: 10g
- ✔ Ghee: 5g

Method of preparation

- ✔ Heat *ghee* in a pan add *ragi* flour and roast on a medium flame until the raw smell goes off (it takes about 8 - 10 minutes). Transfer it to a wide bowl and allow it to cool.
- ✔ In the same pan add peanuts and roast until the color changes into golden brown or it becomes crispy. If you are using the peanuts with skin, dry roast and discard the skin.
- ✔ In a blender add roasted peanuts, roasted *ragi* flour, roasted sesame seeds, sugar and grind it to a fine powder.
- ✔ Add warm water (1-2 tbsp) and shape them into small balls and serve or store it in an airtight container.



ENERGY DENSE RECIPES FOR **HIV/AIDS**

Rationale

The HIV/AIDS has had a devastating impact on health, nutrition, food security and overall socioeconomic development. HIV-related infections lead to appetite loss, weight loss and wasting which results in poor nutrition status. Action to improve the nutrition of people living with HIV (PLWHA) to be thus, focused on prevention, treatment, and management of the disease and related infections.

Energy requirements are likely to increase by 10% to maintain body weight and physical activity in early stage of HIV. During later stage, energy requirement increases by approximately 20% to 30%. For protein requirements, data is insufficient to support an increase in protein intake, thus the normal requirements is 12% to 15% of total energy intake.

To ensure micronutrient intakes at RDA levels, HIV-infected adults are encouraged to consume healthy diets. B-complex vitamins, vitamins C and E, can improve overall health of a pregnant women.

The recommended dietary allowances (RDA) for sedentary women is 1900 kcal and 55g of protein. The additional requirements of energy during pregnancy is 350 kcal of energy and 23 g of protein making their RDA; 2250 Kcal of energy and 78 g of protein. For a sedentary pregnant women suffering from HIV/AIDS, an addition of 10%

calories increases the requirement to 2475 kcal and protein 78 gm (12.6% of total energy intake). In this case 4 major meals (500 kcal energy, 15 gm protein each) and 2 freshly prepared snacks (250 kcal energy and 9 gm protein each) are recommended in a day.



The recipes for HIV/AIDS in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.

Table 1.

RECOMMENDED DIETARY ALLOWANCES

NUTRIENT	RECOMMENDED DIETARY ALLOWANCE OF SEDENTARY WOMAN	ADDITIONAL REQUIREMENTS DURING PREGNANCY	RECOMMENDED DIETARY ALLOWANCE OF PREGNANT WOMEN
ENERGY (kcal)	1900	350	2250
PROTEIN (g)	55	23	78
IRON (mg)	21	14	35
VISIBLE FAT (g)	20	10	30
VITAMIN C (mg)	40	20	60
VITAMIN A (mcg)	600	200	800
CALCIUM (mg)	600	600	1200



FRESHLY PREPARED RECIPES



Maize porridge

Cost (Rs): 15/-



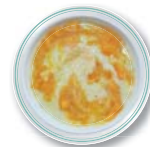
Energy (Kcal)	265
Protein (g)	9.1
Carbohydrate (g)	33
Fat (g)	10.7
Beta carotene (mcg)	85
Vitamin B6 (mg)	.8
Vitamin C (mg)	6
Iron (mg)	1.1
Calcium (mg)	214
Vitamin A (mcg)	102



Serving size: 1 medium
size bowl



Preparation time: 15 minutes



Ingredients

- ✓ Maize (broken): 20g
- ✓ Milk: 175g
- ✓ Mango: 50g
- ✓ Peanuts: 5g
- ✓ Sugar: 10g
- ✓ Water: 200g

Condiments and Spices

- ✓ Cardamom: 1g

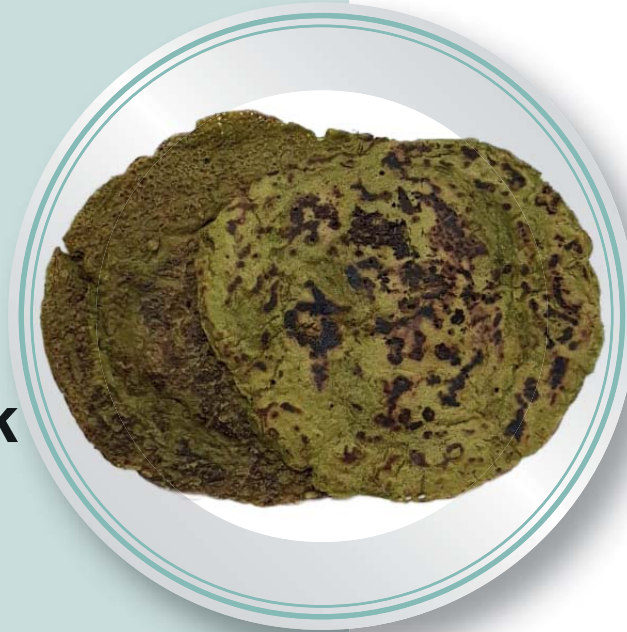
Method of preparation

- ✓ Boil 1/2 cup of water in a pan.
- ✓ Blend the maize with a 1/4 cup of water.
- ✓ Pressure cook blended maize meal.
- ✓ Add milk as maize meal is soft in consistency.
- ✓ Add sugar and cardamom. Cover pot and let it bubble for 5 minutes at low flame.
- ✓ Maize porridge starts to turn into a creamy colour.
- ✓ Add mashed mango in the porridge.



Paushtik Jowar Palak Cheela

Cost (Rs): 6/-



Energy (Kcal)	255
Protein (g)	8.0
Carbohydrate (g)	28
Fat (g)	11.8
Beta carotene (mcg)	1340
Vitamin B6 (mg)	0.2
Vitamin C (mg)	15
Iron (mg)	3.7
Calcium (mg)	58



Serving size: 2 big
Cheela

Ingredients

- ✔ Jowar Flour: 25g
- ✔ Bengal gram flour: 20g
- ✔ Spinach: 50g
- ✔ Oil: 10g
- ✔ Salt: 2.5g
- ✔ Water : 100 ml

Condiments and Spices

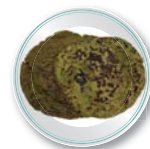
- ✔ Ginger: 2.5g
- ✔ Garlic: 2.5g
- ✔ *Ajwain*: pinch



Preparation time: 10-15 minutes

Method of preparation

- ✔ Combine the jowar flour, Bengal gram flour and enough water in a deep bowl and soak for 10 mins.
- ✔ Blend spinach to make puree/ finely chopped.
- ✔ Transfer the puree into a deep bowl, grate ginger and garlic and mix well.
- ✔ Add puree in jowar and Bengal gram mixture. Put salt and *ajwain* and mix well.
- ✔ On a hot *tawa* pour a ladleful of the batter on it and spread it in a circular motion.
- ✔ Smear a little oil over it and along the edges and cook on a medium flame till the *cheela* turns brown in colour and crisp.
- ✔ Flip over and cook on the other side as well.
- ✔ Serve immediately.





Palak Masoor Khichdi with Curd

Cost (Rs): 13/-



Energy (Kcal)	250
Protein (g)	10
Carbohydrate (g)	27
Fat (g)	10.6
Beta carotene (mcg)	1304
Vitamin B6 (mg)	0.2
Vitamin C (mg)	15
Iron (mg)	3.5
Calcium (mg)	225
Vitamin A (mcg)	23



Serving size: 1 big bowl

Ingredients

- ✓ Rice: 20g
- ✓ *Masoor Dal*: 15g
- ✓ Spinach: 50g
- ✓ Gingelly seeds: 5g
- ✓ Curd: 75g
- ✓ Ghee: 5g
- ✓ Water: 50 ml
- ✓ Salt: ¼ tsp

Condiments and Spices

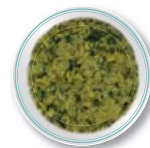
- ✓ Asafoetida: 1/4 tsp
- ✓ Turmeric: 1/4 tsp



Preparation time: 30 minutes

Method of preparation

- ✓ Heat the oil in a pressure cooker.
- ✓ Add asafoetida and turmeric powder and sauté on a medium flame for 15 seconds.
- ✓ Add finely chopped spinach and mix well and cook on a medium flame for 2 minutes, while stirring occasionally.
- ✓ Add washed rice, masoor dal, salt and 1 cup of water, mix well and pressure cook for 2 whistles.
- ✓ Allow the steam to escape before opening the lid.
- ✓ Serve immediately with fresh curd.





Shakarkandi Chaat

Cost (Rs): 13/-



Energy (Kcal)	282
Protein (g)	9
Carbohydrate (g)	50
Fat (g)	3.9
Beta carotene (mcg)	2343
Vitamin B6 (mg)	0.8
Vitamin C (mg)	36
Iron (mg)	2.8
Calcium (mg)	93



Serving size: 1 medium size bowl

Ingredients

- ✓ *Shakarkandi*/Sweet potato: 150g
- ✓ Boiled Bengal gram whole (soaked): 30g
- ✓ Tomato: 25g
- ✓ Peanuts: 5g
- ✓ Lemon juice: 5g
- ✓ Salt: 1/2 tsp



Preparation time: 10-15 minutes

Method of preparation

- ✓ Rinse sweet potato very well under water.
- ✓ Steam sweet potato in a pressure cooker for about 3-4 whistles.
- ✓ Peel the skin of sweet potatoes and chop.
- ✓ Pressure cook soaked Bengal gram whole for 3 whistles.
- ✓ Add boiled Bengal gram, chopped tomato, lemon juice and salt to the chopped shakarkandi.
- ✓ Serve fresh.





Aloo ka Halwa

Cost (Rs): 12/-



Energy (Kcal) 289

Protein (g) 9.1

Carbohydrate (g) 23

Fat (g) 17.6

Beta carotene (mcg) 32

Vitamin B6 (mg) 0.2

Vitamin C (mg) 20

Iron (mg) 2.9

Calcium (mg) 260

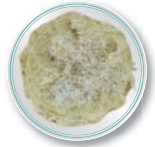
Vitamin A (mcg) 58



Serving size: 1 small bowl



Preparation time: 20-30 minutes



Ingredients

- ✔ Potato: 75g
- ✔ Milk (cow): 100 ml
- ✔ Coconut: 5g
- ✔ Gingelly seeds: 10 g
- ✔ Besan: 10g
- ✔ Sugar: 5g
- ✔ Ghee: 5g

Condiments and Spices

- ✔ Cardamom: 1/2 tsp

Method of preparation

- ✔ Boil the potatoes and peel off the skin. Once, done mash it.
- ✔ Add besan in hot pan and roast till golden brown color.
- ✔ In a pan, pour some ghee and let it heat. Then add the mashed potatoes and let it roast for 10 minutes.
- ✔ Add roasted besan, milk, sugar, ground gingelly seeds and grated coconut to the potatoes and mix them well.
- ✔ Cook for another 5 minutes and stir frequently.
- ✔ Add cardamom and stir.
- ✔ Serve hot.



HOME BASED SNACK RECIPES FOR HYPOTHYROIDISM

Rationale

Thyroid gland is located in the neck and synthesizes thyroid hormones. They have an important role in the metabolic functions of the body. Normal levels of thyroid hormone are also essential for structural and functional changes in brain. Iodine is an essential compound for the synthesis of thyroid hormones. Iodine is present in iodized salt, sea food, milk, milk products, meat and meat products. During pregnancy, there is increased thyroid hormone production. In addition, there is increased renal iodine excretion, foetal iodine requirements and higher dietary iodine requirements of pregnant woman as compared to non-pregnant woman. If iodine is deficient in diet, pregnant women suffer from hypothyroidism and may experience associated complications such as miscarriage, stillbirth, preterm labour and congenital disorders in babies. Other than iodine, presence of the goitrogenic substances (substances present in Cauliflower, Cabbage, Broccoli, Radish, Rapeseed and Turnips) affect the thyroid hormone synthesis by inhibiting the iodine uptake and the activity of thyroid peroxidase. Literature reports that if hypothyroidism in pregnancy remains untreated, it is associated with adverse maternal effects. Thus, early diagnosis and treatment of hypothyroidism are known to reduce maternal and foetal morbidity and improve neonatal well-being.

Important nutrients, other than iodine for the thyroid function include selenium, iron, zinc and vitamin A. Supplementation of these nutrient enhances the formation of thyroid hormones.

The recommended dietary allowances (RDA) for sedentary women are 1900 kcal and 55 g of protein. The additional requirements during pregnancy are 350 kcal of energy and 23 g of protein. However energy requirements for pregnant woman with hypothyroidism are less as obesity is seen in hypo-functioning thyroid gland which is contributed by reduced metabolic rate. Thus recommended calories will remain 1900 kcal/day. However the increase in requirement for protein makes it 78 g of protein per day. In this case 3 major meals (500 kcal energy, 22 g protein each) and 2 snacks (200 kcal energy and 6 g protein each) are recommended in a day. Foods rich in selenium, iron, zinc and vitamin A are included.



The recipes for hypothyroidism in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.



FRESHLY PREPARED RECIPES



Pumpkin Kheer

Cost (Rs): 17.5/-



Energy (kcal) 201

Protein (g) 6.0

Carbohydrate (g) 16

Fat (g) 12.4

Beta carotene (mcg) 388

Retinol 93

Iron (mg) 0.8

Zinc (mg) 0.6

Selenium (mcg) 2.2

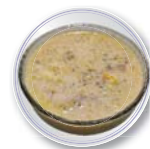
Tyrosine (mg) 12.8



Serving size: 1 bowl



Preparation time: 15 minutes



Ingredients

- ✔ Pumpkin ripe: 50 g
- ✔ Mango: 25 g
- ✔ Milk: 160 g
- ✔ Jaggery: 5 g
- ✔ Ghee: 5 g

Condiments and Spices

- ✔ Cardamom powder: 1/4 tsp

Method of preparation

- ✔ Wash and peel pumpkin. Cut into small pieces.
- ✔ Bring it to boil in a closed container with 50 ml water.
- ✔ Mash pumpkin with a spoon into a thick paste.
- ✔ To a thick pan, add *ghee* and mashed pumpkin. Stir well.
- ✔ Add milk and simmer for at least 5 minutes and close the lid.
- ✔ Add jaggery and cardamom powder in the above mixture and mix well.
- ✔ Once the above mixture is cool, add mashed mango.



Ragi Gram Tikki

Cost (Rs): 8.9/-



Energy (kcal) 199

Protein (g) 6.6

Carbohydrate (g) 27

Fat (g) 6.7

Beta carotene (mcg) 139

Iron (mg) 2.7

Zinc (mg) 1.4

Selenium (mcg) 13

Tyrosine (mg) 3.4



Serving size: 2 *Tikkis*



Preparation time: 15 minutes



Ingredients

- ✓ Ragi: 15 g
- ✓ Bengal gram flour (besan): 25 g
- ✓ Pumpkin (raw): 20 g
- ✓ Potato: 40 g
- ✓ Oil: 5 g

Condiments and Spices

- ✓ Cardamom powder: 1/4 tsp
- ✓ Green chilli: 1 g
- ✓ Salt: 1/4 tsp
- ✓ Red chilli: 1/8 tsp

Method of preparation

- ✓ Wash, peel and grate raw pumpkin and keep it aside.
- ✓ Boil potato, peel its skin and mash it.
- ✓ Mix *ragi*, Bengal gram flour, salt, red chilli powder, grated pumpkin, mashed potato and chopped green chillies.
- ✓ Shape the above mixture with small amount of water if needed.
- ✓ Place *tikkis* on hot flat pan and roast till golden brown. Cook on both sides.



Bajra moong dal khichri with curd

Cost (Rs): 19.2/-



Energy (kcal)	202
Protein (g)	8.4
Carbohydrate (g)	22
Fat (g)	8.5
Beta carotene (mcg)	582
Iron (mg)	2.1
Zinc (mg)	1.0
Selenium (mcg)	12.4
Tyrosine (mg)	1.7



Serving size: 3/4 bowl

Ingredients

- ✓ *Bajra* (soaked): 15 g
- ✓ Green gram dal: 15 g
- ✓ Carrot: 20 g
- ✓ Peas: 15 g
- ✓ Curd: 60 g
- ✓ *Ghee*: 5 g

Condiments and Spices

- ✓ Cardamom powder: 1/4 tsp
- ✓ Asafoetida: 1/8 tsp
- ✓ Mustard seeds: 1/8 tsp
- ✓ Salt: 1/4 tsp
- ✓ Turmeric powder: 1/8 tsp



Preparation time: 15–20 minutes

Method of preparation

- ✓ Wash green gram dal, peas and carrot. Dice carrot into small pieces.
- ✓ Combine all with soaked *bajra*, salt, turmeric powder and 200 ml of water in a pressure cooker. Mix well and pressure cook for 4 whistles.
- ✓ Allow the steam to escape before opening the lid. Keep aside.
- ✓ For *baghar*, add mustard seeds to the *ghee* in small pan. When the seeds crackle add asafoetida and sauté for 5 seconds.
- ✓ Add *baghar* in *khichri*, mix well and cook on medium flame for 2-3 minutes while stirring occasionally.
- ✓ Serve hot *khichri* with curd.





Coconut rice

Cost (Rs): 14.4/-



Energy (kcal) 219

Protein (g) 6.2

Carbohydrate (g) 19

Fat (g) 12.3

Beta carotene (mcg) 545

Iron (mg) 0.8

Zinc (mg) 1.0

Selenium (mcg) 0.3

Tyrosine (mg) 2.1



Serving size: 1 bowl



Preparation time: 20–25 minutes



Ingredients

- ✓ Rice: 20 g
- ✓ Coconut kernel, dry (grated): 10 g
- ✓ Carrot: 15 g
- ✓ French Beans: 20 g
- ✓ *Paneer*: 20 g
- ✓ Oil: 5 g

Condiments and Spices

- ✓ Ginger: 1/4 tsp
- ✓ Green chilli: 1 g
- ✓ Cumin: 5 g
- ✓ Bay leaf: 1g
- ✓ Salt: 1/4 tsp

Method of preparation

- ✓ Wash and soak rice for 10 minutes.
- ✓ Wash carrot, french beans, ginger and green chillies and chop very finely.
- ✓ Add oil in the pan, add cumin, bay leaf, ginger, french beans and carrot. Stir for 2-3 minutes.
- ✓ Add rice and mix well. Add salt.
- ✓ Add dry coconut to the rice with water. Mix well.
- ✓ Cook and cover until fully done.
- ✓ When done, add small pieces of paneer and chopped green chillies.



Fish masala

Cost (Rs): 23.5/-



Energy (kcal)	192
Protein (g)	10.6
Carbohydrate (g)	5
Fat (g)	14.1
Beta carotene (mcg)	27
Iron (mg)	1.7
Zinc (mg)	1.1
Selenium (mcg)	0.9
Tyrosine (mg)	1.0



Serving size: 2 pieces



Preparation time: 15–20 minutes



Ingredients

- ✓ Fish: 45 g
- ✓ Poppy seeds: 10 g
- ✓ Onion: 30 g
- ✓ Ginger: 5 g
- ✓ Garlic: 5 g
- ✓ Lemon juice: 5 g
- ✓ Oil: 10 g

Condiments and Spices

- ✓ Green chilli: 1 g
- ✓ Turmeric: 1/4 tsp
- ✓ Salt: 1/4 tsp

Method of preparation

- ✓ Take a pan, dry roast poppy seeds. Add this to blender, add chopped onion, ginger, garlic, green chillies and make a paste with 25 ml water.
- ✓ In another pan add oil and above mixture and cook till golden brown.
- ✓ Now in a bowl add fish pieces, turmeric, salt and blended paste. Mix well and keep it aside for 10 minutes.
- ✓ After 10 minutes take a deep pan, add oil and marinated fish. Cook on a very slow flame. Cook both sides till golden brown colour.
- ✓ Add lemon juice once done.



HOME BASED SNACK RECIPES FOR **HYPERTHYROIDISM**

Rationale

Thyroid gland is located in the neck and synthesizes thyroid hormones. It has an important role in the metabolic functions of the body. Normal levels of thyroid hormone are also essential for structural and functional changes in brain. During pregnancy, there is an increase in other hormones, which directly increases thyroid hormone production particularly in first trimester (1st week to 12th week of pregnancy). This condition is called as hyperthyroidism. As reported in literature, mild hyperthyroidism is safe for the mother and foetus, however, moderate to severe hyperthyroidism can prove dangerous. If not treated, it may cause delayed weight gain in pregnancy, high blood pressure and heart problem in mother. Child may have low birth weight or may have premature birth. Foods which are considered goitrogenic such as vegetables (cauliflower, cabbage, broccoli, spinach, radish, rapeseed and turnips), soybean, soy products and peanuts can be easily consumed in hyperthyroidism. All food groups should be included in the diet of pregnant woman with hyperthyroidism. It is recommended to have high calorie and nutritious foods like milk, meat, chicken, egg, pulses and cereals. In addition, it is vital to make food energy dense by adding ghee, butter, cream, nuts, sugar/jaggery. It is also advised to drink lot of fluids for example milk, water, lemon water or coconut water.

The recommended dietary allowance (RDA) for sedentary

women is 1900 kcal and 55 g of protein. The additional requirements during pregnancy are 350 kcal of energy and 23 g of protein making their RDA; 2250 kcal of energy and 78 g of protein. In this case 4 major meals (450 kcal energy, 15 g protein each) and 2 snacks (225 kcal energy and 9 g protein each) are recommended in a day.



The recipes for hyperthyroidism in this booklet have been conceptualized, standardized and prepared by the National Centre of Excellence & Advanced Research on Diets, Department of Food & Nutrition, Lady Irwin College.



FRESHLY PREPARED RECIPES



Cauliflower radish parantha with curd

Cost (Rs): 29.16/-



Energy (kcal) 233

Protein (g) 8.6

Carbohydrate (g) 19

Fat (g) 13

Beta carotene (mcg) 23

Iron (mg) 1.3

Zinc (mg) 0.6

Selenium (mcg) 10

Tyrosine (mg) 0.7



Serving size: 2 small
paranths



Preparation time: 10 minutes



Ingredients

- ✔ Whole wheat flour: 20 g
- ✔ Cauliflower: 10 g
- ✔ Radish: 5 g
- ✔ Oil: 5 g
- ✔ Curd: 200 g

Condiments and Spices

- ✔ *Ajwain*: 1/4 tsp
- ✔ *Dhaniya* powder: 1/4 tsp
- ✔ *Amchur*: 1/8 tsp
- ✔ Green chilli: 1 g
- ✔ *Jeera* powder: 1/8 tsp
- ✔ Salt: 1/4 tsp

Method of preparation

- ✔ Mix whole wheat flour and water. Gently knead dough.
- ✔ Shred cauliflower, grate the radish finely and mix well. Drain excess water.
- ✔ Add *ajwain*, *dhaniya* powder, *amchur*, chopped green chilli, *jeera* powder and salt to the vegetables.
- ✔ Take small dough, roll into a thick disc. Keeping hands cupped, put filling inside and close the disc.
- ✔ Roll it into *parantha* and cook on a hot *tava*.
- ✔ Put some oil on side facing and flip it. Cook on both sides.
- ✔ Serve hot *parantha* with curd.



Cabbage vada

Cost (Rs): 7.23/-



Energy (kcal) 227

Protein (g) 8.9

Carbohydrate (g) 19

Fat (g) 12

Beta carotene (mcg) 59

Iron (mg) 2

Zinc (mg) 1.3

Selenium (mcg) 11

Tyrosine (mg) 1.9



Serving size: 4 small
vadas



Preparation time: 15 minutes



Ingredients

- ✓ Cabbage: 30 g
- ✓ *Besan*: 20 g
- ✓ Rice flour: 5 g
- ✓ Potato: 20 g
- ✓ Ginger: 2.5 g
- ✓ Peanut: 15 g
- ✓ Oil: 7 g

Condiments and Spices

- ✓ Green chillies: 1 g
- ✓ Coriander leaves: 1 sprig
- ✓ Salt: 1/8 tsp

Method of preparation

- ✓ Wash cabbage. Shred and chop it to a very small size.
- ✓ Wash and chop ginger, green chillies and coriander leaves.
- ✓ Boil and peel potato.
- ✓ Add shredded cabbage, *besan*, potato, chopped ginger, green chillies, coriander leaves and salt in a bowl.
- ✓ Mix well and add rice flour and roasted peanuts.
- ✓ Make balls of the above mixture. Flatten them and cook them on hot flat pan.
- ✓ Use oil to fry till golden brown from both sides and serve hot.



Palak buckwheat cheela

Cost (Rs): 5.6/-



Energy (kcal) 241

Protein (g) 7

Carbohydrate (g) 26

Fat (g) 11

Beta carotene (mcg) 446

Iron (mg) 5

Zinc (mg) 0.8

Selenium (mcg) 10

Tyrosine (mg) 1.1



Serving size: 4 small
cheelas

Ingredients

- ✔ Buckwheat (*Kuttu*): 25 g
- ✔ *Besan*: 20 g
- ✔ *Palak*: 15 g
- ✔ Oil: 10 g

Condiments and Spices

- ✔ Green chilli: 2 g
- ✔ Coriander leaves: 1 sprig
- ✔ Cumin powder: 1/4 tsp



Preparation time: 15 minutes

Method of preparation

- ✔ Wash and chop *palak*, green chilli and coriander leaves.
- ✔ In a bowl, add buckwheat, *besan*, chopped *palak*, green chilli, coriander leaves, cumin powder and salt.
- ✔ Mix all the ingredients and combine with water. Batter should be of pouring consistency.
- ✔ Heat *tava* on medium flame and grease with some oil.
- ✔ Pour two spoonful batter on *tava* and spread.
- ✔ Apply oil on the top of cheela and sides as well. Let it cook for 30-40 seconds.
- ✔ Flip it over to other side and cook. It should be golden brown after cooking.





Soya kebabs

Cost (Rs): 7.3/-



Energy (kcal) 220

Protein (g) 8.3

Carbohydrate (g) 14

Fat (g) 14

Beta carotene (mcg) 23

Iron (mg) 2

Zinc (mg) 1

Selenium (mcg) 3.9

Tyrosine (mg) 1.7



Serving size: 4 *kebabs*



Preparation time: 20 minutes



Ingredients

- ✔ Soya nuggets: 20 g
- ✔ Rice flakes: 10 g
- ✔ Potato: 15 g
- ✔ Onion: 15 g
- ✔ Oil: 10 g
- ✔ Garlic: 5 g
- ✔ Ginger: 1/2 inch

Condiments and Spices

- ✔ Green chillies: 1 g
- ✔ Salt: 1/2 tsp
- ✔ Coriander powder: 2.5 g

Method of preparation

- ✔ Soak soya nuggets and rice flakes in hot water for 5 minutes.
- ✔ Drain water and mash them in the mixture.
- ✔ Boil, peel and mash potato in a separate bowl. Wash and chop onion, ginger, garlic and green chillies.
- ✔ Mix all the above ingredients. Add salt.
- ✔ Make *kebabs* and fry them in hot oil.



Sweet potato and millet balls

Cost (Rs): 6.6/-



Energy (kcal)	235
Protein (g)	9
Carbohydrate (g)	24
Fat (g)	10
Beta carotene (mcg)	1389
Iron (mg)	2.3
Zinc (mg)	1.4
Selenium (mcg)	14.6
Tyrosine (mg)	2.4



Serving size: 4 Balls



Preparation time: 15 minutes



Ingredients

- ✔ Sweet potato: 25 g
- ✔ *Channa dal* (Overnight soaked): 25 g
- ✔ *Bajra* (Overnight soaked): 5 g
- ✔ Onion: 25 g
- ✔ Garlic: 2.5 g
- ✔ Peanut: 10 g
- ✔ Oil: 5 g

Condiments and Spices

- ✔ Cumin powder: 1/4 tsp
- ✔ Salt: 1/2 tsp

Method of preparation

- ✔ Boil sweet potato and peel its skin.
- ✔ Soak *channa dal* and *bajra* overnight.
- ✔ Grind *channa dal* and *bajra*.
- ✔ Wash and chop onion and garlic.
- ✔ Mix the ground mixture, sweet potato, onion, garlic, peanut, cumin powder and salt.
- ✔ Roll the above mixture into balls using water.
- ✔ Shallow fry the balls on *tava* till golden brown.

