



National Centre of Excellence and Advanced Research on Diets
Lady Irwin College, New Delhi.



Healthy Diet and Lifestyle Booklet



TABLE OF CONTENTS

Balanced Diet	01
Dietary Guidelines	07
Recommended Dietary Allowances	08
Health Conditions and Suitable Recipes	09
Introduction	10
1. Anemia	11
(i) Soya Poha	12
(ii) Paushtik Barfi	13
2. Diabetes	14
(i) Lauki ki Barfi	16
(ii) Khakhras	17
3. Hypertension	18
(i) Bajra Besan Cheela	20
(ii) Lotus Stem Tikki	21
4. HIV/AIDS	22
(i) Paushtik Jowar Palak Cheela	24
(ii) Chana Dal Chikki	25
5. Underweight	26
(i) Cereal Pulse Halwa	28
(ii) Paushtik Namakpara	29
6. Obesity	30
(i) Haryali Khaman Dhokla	32
(ii) Daliya Pulao	33
7. Tuberculosis	34
(i) Sprouts Upma	36
(ii) Ragi Porridge	37

BALANCED DIET

“Good health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”

– (World Health Organization, 1948)

We know that the food provides nutrients that are essential to satisfy the body's need for energy, growth, repair and protection, but we also need to understand what constitutes food and its importance in our life. Good nutrition provides us with all the essential nutrients in correct balance which promote the highest level of physical and mental health. This state of optimal nutrition can be attained through consumption of balanced diets.

BALANCED DIET

A balanced diet is a combination of basic food groups that contain a variety of foods from diverse food groups including cereals, legumes, dairy products, meat, egg, fish, poultry, fruits and vegetables, nuts and seeds. Along with nutrient-dense foods such as carbohydrates, proteins, visible and invisible fats, a balanced diet is also packed with vitamins and minerals.



FOOD GROUPS

Food items in our diet contain a wide range of nutrients, however, every food group serves as a major source of one or two nutrients. Therefore, foods are classified into different groups depending on their nutritive value, for convenience of planning meals. The basic classification of foods into seven groups is provided below :

1. CEREALS AND MILLET

- Cereals (rice, wheat, semolina etc.) and millets (*jowar, bajra, ragi*) are rich in energy, protein, dietary fibre, B vitamins and minerals like calcium and iron
- Whole cereals and millets such as whole wheat, *bajra, ragi, jowar* etc. are rich sources of dietary fibre. Dietary fibre is a complex carbohydrate that cannot be easily broken or digested by human body. It delays absorption of carbohydrates and fats and increases the satiety value of the meal consumed
- Diets rich in complex carbohydrates such as whole cereals and millets are healthier than low-fibre diets based on refined and processed foods
- An adult should consume about 270-375 gram of cereals everyday along with other food groups in the diet



2. PULSES AND LEGUMES

- Pulses and legumes are plant based source of protein, energy, B- complex vitamins, iron, fibre and phytonutrients. They help in building and maintenance of body tissues
- Pulses and legumes like soyabean, green gram, chick pea etc. are rich source of essential

amino acids which are readily absorbed in our body

- An adult should consume about 60-70 gram of pulse everyday along with other food groups to ensure proper nutrition
- Pulses and legumes should always be washed thoroughly with water to remove nutrient inhibitors

Try to incorporate sprouted and fermented pulses/legumes and cereals such as green gram/bengal gram sprouts, idli, dhokla etc. in your daily diet. Sprouting and fermentation improves the nutritive value of food (vitamin B and C). Such foods are easy to digest, palatable, and nutrient rich.

3. FRUITS AND VEGETABLES

- Orange, yellow and red colored fruits (oranges, lemons, papaya, etc.) and vegetables (carrots, pumpkins, capsicum etc.) are good source of vitamin C, vitamin A (beta carotene) and dietary fibre
- Dark green leafy vegetables [fenugreek leaves (*methi*), mustard leaves (*sarson*), and amaranth leaves (*chaulai*) etc.] are rich of source of iron, calcium, vitamin A, vitamin C and dietary fibre
- At least 100 gram of fruits and 300 gram of seasonal and green leafy vegetables should be consumed per day to maintain a healthy body
- Vegetables should not be overcooked and should be cooked with a lid cover to avoid nutrient losses



Antioxidants present in fruits and vegetables are protective substances that prevent free radical formation in our body and provide protection against certain diseases like cancer, atherosclerosis, asthma, diabetes etc.

4. MILK AND MILK PRODUCTS

- Milk and milk products (cow's milk, cheese, *paneer*, etc.) are a good source of calcium, protein, vitamin A and vitamin B2 (riboflavin)
- They help in strengthening, development and growth of bones; maintains blood pressure; tissue building and maintenance, and promote healthy vision
- Approximately 300ml of milk and milk products in your daily diet should be included
- Milk should not be consumed with caffeine (tea, coffee and aerated drinks)



5. NUTS AND OILSEEDS

- Nuts and Oilseeds are not only a good source of protein but are also rich in energy
- Nuts (groundnuts, almonds, pistachio etc.) are good source of thiamine, vitamin E, High Density Lipoprotein (good quality cholesterol)
- Oilseeds (gingelly seeds, mustard seeds, niger seeds etc.) are good source of iron, calcium, and omega 3 fatty acids
- At least 5-10 gram of nuts and oilseeds should be consumed for optimal health benefits



6. FATS AND OILS

- Fats and oils have high-energy value and induce satiety
- Fats provide energy essential fatty acids and promote absorption of fat soluble vitamins such as vitamin A, E, D and K
- Plant based oils (soyabean oil, mustard oil, olive oil etc.) are rich source of omega 3 and omega 6 fatty acids
- A healthy adult should incorporate 25 gram of visible fat (cooking oil, butter, ghee) daily



In their diet

- Use of re-heated fats and oils while cooking should be avoided

7. MEAT, FISH, CHICKEN AND EGG

- Flesh foods like meat, chicken, egg and fish are rich source of good quality protein (essential amino acids), and vitamin B
- They are also rich in vitamin B12, which helps in cell division in human body
- Lean meat, organ meat, egg and fish are rich source of heme iron i.e. the iron present in them is highly available to human body
- At least 100-200g/week of fish and 3 eggs/week should be consumed
- Intake of red meat such as kidney, liver, pork and lamb should be consumed in limited quantity or avoided as they are rich in saturated fats



SALT

- Salt is a major source of sodium and high intake of salt is associated with high blood pressure. Consumption of potassium rich fruits and vegetables help in reduction of blood pressure
- Not more than 6 gm of salt (1 teaspoon) in a day should be consumed. Salt should be replaced with spices and flavoring agents such as onion, ginger, garlic, mango powder and lemon to enhance taste in food
- Consumption of processed and preserved foods such as *papads*, pickles, ketchups etc. should be in moderation
- Consume iodized or double fortified salt (iron and iodine) to prevent iodine and iron deficiency



SUGAR

- Sugar is present in natural foods like vegetable, fruits, honey and milk. It is also present in high amounts in processed foods like chocolates, jams, ice-creams, aerated drinks etc.
- Sugar is used a taste enhancer in food products but excess consumption of sugar may lead to obesity, elevated blood lipids and, dental caries
- Sugar consumption should be restricted to 20 gram/day



WATER INTAKE

- Water is the major component of human body
- Water plays a key role in elimination of body waste and regulation of body temperature
- Body losses water through urine, sweat and faeces. Hence, in order to compensate the losses, it is essential to drink clean and potable water
- A normal healthy individual should drink about 8 glasses (2 litres) of water everyday



PHYSICAL ACTIVITY

- Regular physical activity not only helps in maintaining desirable body weight but it also helps in reducing risks of Non Communicable Diseases (NCDs)
- Adults over the age of 20 years should undertake a minimum of 30-45 minutes of physical activity of moderate intensity such as brisk walking, gardening, jogging etc.



DIETARY GUIDELINES

In 2015, National Institute of Nutrition recommended dietary guidelines, which are practical, flexible and based on prevailing situations for Indian population. Following these guidelines can help an individual to lead healthy lifestyle and prevent the risk of various diseases. These guidelines are as follows :

- Drink plenty of water and consume beverages in moderation
- Eat variety of foods like whole grains, fruits, vegetables and proteins to ensure a balanced diet
- Eat small meals at frequent intervals daily
- Avoid overeating to prevent overweight and obesity
- Regular physical activity helps maintain ideal body weight
- Restrict salt consumption to minimum
- Ensure consumption of clean foods and safe handling of food
- Adopt right pre-cooking processes and other appropriate cooking methods
- It's good to stay away from fried and processed foods as they are high in trans-fat
- Ensure moderate intake of edible oils and animal foods and reduce intake of butter/ghee/*vanaspati*
- It is recommended to get sunlight (richest source of vitamin D) exposure from 11:00 am to 2:00 pm for a minimum 30 minutes daily
- After the age of 30 years, get yourself checked for blood sugar, blood pressure and lipid profile atleast biannually



RECOMMENDED DIETARY ALLOWANCES FOR INDIAN POPULATION BY ICMR 2010

Group	Category	Body weight (Kg)	Energy (Kcal/Day)	Proteins (g/day)	Visible Fat (g/day)	Calcium (mg/day)	Iron (mg/day)	Vitamin A	
								Retinol ($\mu\text{g/day}$)	B Carotene ($\mu\text{g/day}$)
MAN	Sedentary	60	2320	60	25	600	17	600	4800
	Moderate		2730		30				
	Heavy		3490		40				
WOMAN	Sedentary	55	1900	55	20	600	21	600	4800
	Moderate		2230		25				
	Heavy		2850		30				
	Pregnant	+350	78	30	1200	35	800	6400	
	Lact. <6mths	+600	74	30	1200	21	950	7600	
	Lact. 6-12 mths	+520	68	30					
INFANTS	0-6mths	5.4	92/kg	1.16/kg	-	500	46 $\mu\text{g/kg}$	350	-
	6-12 mths	8.4	80/kg	1.69/kg	19		5	2800	
CHILDREN	1-3 yrs	12.9	1060	16.7	27	600	9	400	3200
	4-6 yrs	18	1350	20.1	25		13		
	7-9 yrs	25.1	1690	29.5	30		16	600	4800
BOYS	10-12 yrs	34.3	2190	39.9	35	800	21	600	4800
GIRLS	10-12 yrs	35	2010	40.4	35		27		
BOYS	13-15 yrs	47.6	2750	54.3	45	800	32		
GIRLS	13-15 yrs	46.6	2330	51.9	40		27		
BOYS	16-17 yrs	55.4	3020	61.5	50	800	28		
GIRLS	16-17 yrs	52.1	2440	55.5	35		26		

HEALTH CONDITIONS AND
SUITABLE RECIPES

INTRODUCTION

Communicable Diseases (CDs) may be defined as diseases which spread from one person to the other and decrease the nutritional status such as - Malaria, Tuberculosis (T.B.), Human Immunodeficiency Virus (H.I.V). Nearly 40% of the Indian population of all ages has Mycobacterium tuberculosis infection, whereas Malaria, dengue and other vector-borne conditions were estimated to account for 1.6% of India's total disease burden. As per the recently released India HIV Estimation 2017 report, National adult (15-49 years) HIV prevalence in India is estimated at 0.22% (0.16% - 0.30%).

Non Communicable Diseases (NCDs) may be defined as diseases which do not spread from one person to the other but still affect the nutritional status such as High blood pressure, Diabetes etc. In India NCDs contribute to 60% of all deaths. The four major causes of NCD deaths are :

- Coronary heart disease, stroke and hypertension (45%)
- Chronic respiratory disease (22%)
- Cancers (12%)
- Diabetes (3%)



Considering the Recommended Dietary Allowances of Indian Population and the nutrient requirements during different health conditions, National Centre of Excellence and Advanced Research on Diets, Lady Irwin College has standardized, conceptualized and prepared recipes which are developed using minimum 4-5 low cost and locally available ingredients.

ANEMIA

Anemia is deficiency of Red Blood Cells (in size or number) or the amount of hemoglobin they contain. This deficiency limits the exchange of oxygen and carbon dioxide between the blood and the tissue cells. Anemia can occur due to deficiency of Iron, Folic acid or Vitamin B12.

DO'S

- Eat plenty of green leafy vegetables like mustard (*sarson*), fenugreek (*methi*), *bathua*, amaranth (*chola*), radish leaves (*muli ke patte*), spinach (*palak*) etc.
- Eat whole grains like whole wheat flour (*atta*), *bajra*, *jowar*, etc., whole pulses soyabean, *rajma*, red gram dal (*arhar*) etc. in daily diet
- Include sprouted pulses in your diet
- Eat vitamin C rich food sources such as guava, *amla*, orange, lemon, sprouts to increase iron absorption in your body
- Consume 'heme' iron found in organ meats, poultry, fish and sea food as they rich source of iron
- Incorporate germinated (Bengal gram, chick pea) and fermented (*dhokla*) foods in your diet as they increases iron absorption
- Incorporate iron rich nuts and oilseeds such as white sesame seeds, grey niger seeds etc.
- Eat variety of foods to make it more nutritious
- Use double fortified salt containing iron and iodine
- Replace junk foods with healthy snacks such as *bajra mathri*, *til ladoo*, *soya poha*, *paushtik cheela*
- Deworming for children and adults on regular basis
- Safe and hygienic food practices
- Consume iron-folic acid tablet regularly as prescribed
- Deworming tablets for children and adults if needed

DON'TS

- Tea and coffee along with meals
- Unhygienic water and food
- Caffeinated drinks like cold drinks
- Very high fibre foods along with meals
- Overcooking of food



SOYA POHA

Freshly Prepared Recipe



Serving Size: 1 *Katava*
Preparation time: 10-15 minutes

Nutrient Composition

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

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

Method 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 BURFI

Ready to Eat



Serving Size: 4 Pieces
Preparation time: 10-15 minutes

Nutrient Composition

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

Ingredients

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

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 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

DIABETES

Diabetes is a condition characterized by high blood glucose levels in the body. In diabetes, pancreas secretes less or no insulin (hormone) or the insulin secreted is not able to act in the body (Insulin Resistance).

THREE MAIN TYPES OF DIABETES ARE CLASSIFIED AS FOLLOWS:

1. Type 1 Diabetes (less or no insulin)
2. Type 2 Diabetes (resistant to insulin)
3. Gestational Diabetes (deficiency of insulin during pregnancy)

DO'S

- Eat 5-6 small meals regularly at specified times
- Consume fibrous foods such as whole wheat flour, *bajra*, *ragi*, whole pulses, sprouts, fruits and vegetables
- Choose low fat milk and milk products and lean meats (chicken/ fish/ egg whites)
- Include rich sources of omega 3 fatty acids like fish, nuts and seeds such as walnut, flax seeds, pumpkin seeds, etc.
- Replace aerated beverages with butter milk, soups and unsweetened healthy beverages like coconut water
- Prefer steamed, baked, roasted and boiled preparations over fried foods
- Prefer whole fruit over fruit juices
- Eat night snack before sleeping especially if on insulin injections/pumps
- Eat home cooked food preferably
- Read food labels to find amount of added sugars in the processed foods
- Dietary follow up with registered dietician at regular intervals
- Monitor your blood glucose regularly
- Do regular physical activity such as yoga, walking etc.
- Take medicines regularly and get regular health checkups
- Regular ANC checkup for a diabetic pregnant woman
- Inspect your feet daily for corns or ulcers

DON'TS

- Refined flour products such as white bread, biscuits and other bakery items or snacks made from *maida*
- Foods such as sweets, sweetened beverages, pastries, etc.
- High starchy vegetables [potato (*aloo*), sweet potato (*shakarkandi*), yam (*jimikand*), colocasia (*arbi*)] and very sweet fruits [mango, banana, sapota (*cheeku*), custard apple (*sharifa*), litchi, grapes]
- Skip meals
- Snacking or nibbling unhealthy foods in between meals
- Fasting or feasting
- Tobacco and alcohol



LAUKI KI BURFI

Freshly Prepared Recipe



Serving Size: 6 Pieces
Preparation time: 20-25 minutes

Nutrient Composition

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

Ingredients

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

Spices and Condiments

- Cardamom: 2.5g

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

KHAKHRAS

Ready to Eat



Serving Size: 4 Khakhras
Preparation time: 10-15 minutes

Nutrient Composition

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

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

Method 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

HYPERTENSION

Hypertension (High Blood Pressure) occurs when systolic blood pressure (SBP) is >140 mm Hg and diastolic blood pressure (DBP) is >90 mm Hg. Systolic blood pressure represents the blood pressure when the heart beats whereas diastolic blood pressure represents the blood pressure when the heart rests between one beat and the next.

DO'S

- Control your blood sugar and lipid levels
- Take your medications as prescribed
- Restrict salt intake in your diet
- Replace salt with spices and flavoring agents such as onion, ginger, garlic, mango powder and lemon to increase taste in food
- Eat whole grain cereals (whole wheat flour, *bajra and ragi*) and whole pulses (*Channa, lobia*, etc) in your diet
- Eat potassium rich fruits and vegetables such as sweet lime (*musambi*), peaches, tomato, spinach, amarnath leaves, etc.
- Choose low fat dairy products and lean meats (chicken/ fish/ egg white), if non vegetarian
- Use healthy oils alternatively such as sesame oil, sunflower oil, mustard oil, rice bran oil, etc.
- Read food labels for sodium content
- Monitor your blood pressure regularly
- Keep waistline to less than 90 cm for men and 80 cm for women
- Reduce your weight, if you are overweight
- Drink water as directed by your physician
- Do regular physical activity such as brisk walking
- Yoga/meditation for stress management



DON'TS

- Highly salted foods such as pickle, *papad*, chips, *chutney*, sauces, salted nuts and bakery products
- Processed and packaged foods such as cheese, salted butter and foods that are preserved using salt. Ready to eat fast foods like burgers, pizza, fried foods items (*samosa, pakoras, mathris* etc.)
- Caffeine, tobacco and alcohol
- Additional table salt on top of foods
- Avoid stress



BAJRA BESAN CHEELA

Freshly Prepared Recipe



Serving Size: 1 Portion (2 Cheelas)
Preparation time: 15 minutes

Nutrient Composition

Energy	149 Kcal
Protein	5.5 g
Carbohydrate	16 g
Fat	6.6 g
Beta Carotene	306 mcg
Fibre	5 g
Sodium	10.6 mg
Vitamin C	1 mg
Vitamin A	38 mcg
Iron	1.9 mg
Calcium	16 mg

Ingredients

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

Spices and Condiments

- 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

LOTUS STEM TIKKI

Ready to Eat



Serving Size: 1 (Portion size-2)
Preparation time: 20-30 minutes

Nutrient Composition

Energy	148 Kcal
Protein	5.6 g
Carbohydrate	17 g
Fat	5.8 g
Beta Carotene	26 mcg
Fibre	5.4 g
Sodium	14.6 mg
Vitamin C	17 mg
Vitamin A	3 mcg
Iron	2.8 mg
Calcium	30 mg

Ingredients

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

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

HIV/AIDS (HUMAN IMMUNODEFICIENCY VIRUS/ ACQUIRED IMMUNE DEFICIENCY SYNDROME)

AIDS is caused by the transmission of human immunodeficiency virus (HIV). It attacks the body's natural defense system, increasing the risk of developing common infections such as influenza, fungal infection, tuberculosis and even cancer. HIV is a slow-acting virus; people can be infected with HIV for many years before they develop signs and symptoms.

DO'S

- If underweight, increase the number of meals and amount of food at each meal)
- Add high protein foods like cheese, *paneer* and powdered nuts to foods
- Include high energy foods like dry fruits, nuts, healthy fats sugar in moderate amounts
- Include Vitamin A and C rich foods like meat products (organ meats, egg, fish, etc.) and dairy products, dark green leafy vegetables, carrots, tomatoes, sweet potato, pumpkin and fruits such as papaya and oranges in daily diet
- Use safe foods. It is better to eat home prepared meals
- Use safe drinking water
- Take prescribed medications and supplements regularly
- Exercise often

DON'TS

- Tobacco and alcohol
- Highly spicy and oily foods
- Force feeding
- Large meals at one time



PAUSHTIK JOWAR PALAK CHEELA

Freshly Prepared Recipe



Serving Size: 2 big Cheelas
Preparation time: 10-15 minutes

Nutrient Composition

Energy	255 Kcal
Protein	8 g
Carbohydrate	28 g
Fat	11.6 g
Beta Carotene	1340 mcg
Fibre	5 g
Sodium	10.6 mg
Vitamin C	15 mg
Calcium	58 mg

Ingredients

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

Spices and Condiments

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

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 color and crisp. Flip over and cook on the other side as well
- Serve immediately

CHANA DAL CHIKKI

Ready to Eat



Serving Size: 3 pieces
Preparation time: 15-20 minutes

Nutrient Composition

Energy	362 Kcal
Protein	11.6 g
Carbohydrate	54 g
Fat	10.2 g
Fibre	7.9 g
Vitamin C	0 mg
Vitamin A	7 mcg
Iron	6.9 mg
Calcium	319 mg

Ingredients

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

Method 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

UNDERWEIGHT

When body weight is less than average expected for one's height, age and sex. According to World Health Organization (2004), underweight is defined as having a BMI (Body Mass Index $<18.5 \text{ Kg/m}^2$).

DO'S

- Gain weight gradually (approximately 1/2kg to 1kg/week)
- Increase the number of meals and the amount of food at each meal
- Eat foods rich in energy such as whole wheat, rice, *bajra*, vegetable oils and sugars (honey, jaggery) in your daily diet
- Include high energy and nutrient dense foods such as nuts, oilseeds and dry fruits in your diet
- Make diet more nutritious by adding variety of foods such as milk and milk products, pulses, meat products, seasonal fruits and vegetables
- Include high energy and protein rich beverages like milk shakes and lassi either in between meals or during meals
- Eat a variety of foods to make the meals more interesting such as cereal pulse *halwa*, *paushtik namakpara*, *sweet dalia*, *channa dal chikki*, *bajra mathri*

DON'TS

- Excessive use of butter, ghee and sugar as it may lead to other health problems
- Ready to eat fast foods
- Avoid using *vanaspati*
- Avoid excessive consumption of fast foods
- Excessive food restriction
- Excessive exercise as it leads to further weight loss



CEREAL PULSE HALWA

Freshly Prepared Recipe



Serving Size: 1 Katora
Preparation time: 10-15 minutes

Nutrient Composition

Energy	375 Kcal
Protein	12.8 g
Carbohydrate	37 g
Fat	19.3 g
Iron	6.8 mg
Fibre	4.4 g
Vitamin C	0 mg
Vitamin A	8 mcg
Calcium	252 mg

Ingredients

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

Method 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

PAUSHTIK NAMAKPARA

Ready to Eat



Serving Size: 1/2 Cup
Preparation time: 25 minutes

Nutrient Composition

Protein	19 g
Dietary fibre	5.0 g
Carbohydrate	32 g
Fat	8.3 g
Iron	17.1 mg
Vitamin C	9 mg
Vitamin A	108 mcg
Calcium	101 mg

Ingredients

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

Spices and Condiments

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

Method 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 *namakpara*. With the help of knife cut it out into 1/8 inch strips (both horizontally and vertically)
- Heat oil in a *karahi*. Once the oil is heated slow down the flame and add *namakpara* to this. (Note: oil should not be too hot)
- Store them in an air tight container

OBESITY

Obesity is defined as abnormal or excessive fat accumulation in the body. According to World Health Organization (2004), Indians are considered obese if their BMI $\geq 25 \text{ kg/m}^2$. Body Mass Index (BMI) is a formula to assess obesity in adults.

DO'S

- Eat small meals
- Plan your meals in advance
- Choose a smaller plate and small portion size
- Eat slowly and chew properly
- Eat foods high in fiber such as whole grains and pulses (wheat flour, *bajra*, *ragi*, Bengal gram whole, green gram whole and sprouts), fruits and green leafy vegetables
- Select low calorie beverages like coconut water, lemon water
- Choose whole fruits over juices
- Eat healthy snacks such as *vegetable idli*, *murmura chaat*, and *soya uttapam* in measured quantities
- Choose low fat milk and milk products (double toned milk/ skim milk) and lean meats (chicken/ fish/ egg whites)
- Use healthy oils like mustard oil, rice bran oil, sesame oil etc. alternatively
- Increase your physical activity
- If you have medical condition, consult doctor for any physical activity
- Monitor your weight regularly

DON'TS

- Skip meals
- Overeat to prevent weight gain
- Excessive oil, *ghee*, butter, *vanaspati*, ready to eat fried foods and processed foods and red meat (mutton and porks)
- Food products made of refined flour such as bakery products (white bread, cakes, and biscuits)
- High sugar, high salt, fried foods, sweetened fruit juices, aerated drinks and alcohol
- Fast or feast
- Eat while watching TV/reading/ at the computer/mobile phone
- Eating out frequently



HARYALI KHAMAN DHOKLA

Snack Replacement Recipe



Serving Size: 4 Pieces
Preparation time: 25-30 minutes

Nutrient Composition

Energy	157 Kcal
Protein	6.6 g
Carbohydrate	13 g
Fat	1.7 g
Iron	3.6 mg
Dietary Fibre	1.9 g
Vitamin C	17 mg
Vitamin A	221 mcg
Calcium	157 mg

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

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

DALIYA PULAO

Meal Replacement



Serving Size: 200 g
Preparation time: 20-25 minutes

Nutrient Composition

Energy	351 Kcal
Protein	15 g
Carbohydrate	52 g
Fat	10.2 g
Dietary Fibre	12.9 g
Vitamin C	30 mg
Vitamin A	471 mcg
Iron	7.3 mg
Calcium	150 mg

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

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 sauté 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

TUBERCULOSIS

Tuberculosis (TB) is an infectious disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but they can also infect other parts of the body like kidneys, spine and brain.

TRANSMISSION OF TUBERCULOSIS

- TB bacteria are transmitted by breathing the contaminated air
- Coughing, sneezing, speaking and singing by a TB patient are the mode of contamination
- People with poor immunity, HIV, Diabetes are at high risk of developing TB

DO'S

- Increase the number of meals (3 meals and 3 snacks)
- Eat cereal pulse combination dishes like *dal roti*, *dal chawal*, *khichri* with curd to improve protein quality of vegetarian diets
- Consume wheat, rice, *jowar*, *bajra*, *ragi* etc. in your diet
- Include green leafy like *amaranth* leaves, spinach, fenugreek leaves, mustard leaves as cooked vegetables and salads
- Include foods like milk, *paneer*, curd, meat, chicken, fish, egg, pulses, nuts and oilseeds and seasonal fruits and vegetables in daily diet
- Add oil/*butter/ghee* to chapati or rice to increase calorie intake
- Consume plenty of fluids like milk based beverages, coconut water, butter milk, vegetable soups, fresh fruit juices
- Eat only hygienically prepared home food
- Visit DOTS Centre regularly and take regular treatment for a prescribed duration

DON'TS

- Force feed
- Deep fried foods and heavy meals
- Tobacco and alcohol
- Excessive consumption of tea/coffee with food
- Excess use of spices and salt



SPROUTS UPMA

Freshly Prepared Recipe



Serving Size: 1 (Portion Size-1 Big Bowl)
Preparation time: 15 minutes

Nutrient Composition

Energy	251 Kcal
Protein	8.5 g
Carbohydrate	36 g
Beta Carotene	16 mcg
Fat	7.4 g
Iron	2 mg
Vitamin B6	0.1 mg
Vitamin C	3 mg
Vitamin A	2 mcg
Calcium	25 mg

Ingredients

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

Spices and Condiments

- 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
- Sauté 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
- Sauté 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

RAGI PORRIDGE

Freshly Prepared Recipe



Serving Size: 1 (Portion Size-1 Big Bowl)
Preparation time: 20-25 minutes

Nutrient Composition

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

Ingredients

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

Spices and 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