



THE ORANGE BOOK for CAMPUSES





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For more information, visit:
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The Orange Book serves as a guide on general practices recommended for ensuring safe, healthy and sustainable food in campuses. The content is not intended to be a substitute for a professional consultation for medical diagnosis and treatment or advice on specific dietary requirements.

PREFACE



Eat Right Campus has been launched by the Food Safety and Standards Authority of India (FSSAI) to promote the right food environment in a variety of settings where most people spend the majority of their time, such as workplaces, colleges and universities or other similar settings. Many of these campuses house a variety of food-service establishments ranging from in-house canteens to catering and food delivery services, restaurants, cafes and street food vendors. Thus, multiple issues need to be addressed in the campus to ensure safe and wholesome food such as hygiene standards, availability of healthy food options, environmentally sustainable food practices and engaging consumers to make the right food choices. As a part of the Eat Right Campus initiative, FSSAI has created a comprehensive checklist of best practices to be followed by campuses covering four key parameters (i) Ensuring Safe Food (ii) Ensuring Healthy Food (iii) Ensuring Sustainable Food and (iv) Building Awareness. Following an evaluation by a third-party audit agency, any campus that meets the threshold criteria based on this checklist is certified as an 'Eat Right Campus'.

The 'Orange Book for Eat Right Campus' has, therefore, been developed as a resource book that outlines these best practices and explains how to implement them in a simple and illustrative manner. This book is aligned with the Eat Right Campus Checklist. The sections - Ensuring Safe Food, Ensuring Healthy Food, Ensuring Sustainable Food and Building Awareness are largely aimed at the campus administration. The sections, Tips on Safe, Healthy and Sustainable Diets and Healthy Recipes are directed to individuals in the campus.

Certification as an 'Eat Right Campus' not only recognizes the efforts of the campus towards improving public health but also adds prestige to its brand value, enabling it to set an example for others. Our vision is to make every campus an 'Eat Right Campus' so that we can consume safe, healthy and sustainable food wherever we are. We hope The Orange Book becomes the go-to-guide for campuses across the country to make this vision a reality and we welcome any feedback and suggestions for this book.

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INTRODUCTION

Eating safe and healthy food is critical in the context of the rising number of food borne diseases, deficiencies of micronutrients like vitamins and minerals and non-communicable diseases (NCDs) like hypertension, diabetes and heart related diseases. In India, 196 million Indians are undernourished¹. At the same time, 135 million are overweight or obese² putting them at risk for high blood pressure, heart disease and diabetes. The number of cases of food borne illnesses is expected to rise from 100 in million in 2011 to 150 - 177 million in 2030³.

INTRODUCTION

In today's fast-paced environment, a large number of working professionals and students are spending the majority of their time at the workplace or college campus. The long working hours, classes or client meetings and short deadlines are only increasing the time spent in these places with little time left for eating healthy or exercising. Hospitals and tea estates have workers who spend long hours working, often at the cost of their health. Most people eat at least one meal in these campus settings, if not more. While some individuals bring packed lunches from home or use home-based services like the dabba-system others use catering and food delivery services. Many people also visit restaurants, cafes and food vendors in or near the campus area.

The number of cases of food borne illnesses is expected to rise from

100 in million in **2011**
to
150 - 177 million in **2030³**

This will directly impact the ability to absorb nutrients, fight infection, rendering millions vulnerable to a host of diseases. In addition, the current food production and consumption practices are threatening the environment and the future of our planet. Food production is responsible for up to 30% of global greenhouse-gas emissions contributing to global warming⁴. Global food waste accounts for 6.7% of global greenhouse gas emissions, directly leading to climate change⁵.

Food production is responsible for up to **30%** of global greenhouse-gas emissions contributing to global warming⁴.

Global food waste accounts for **6.7%** of global greenhouse gas emissions, directly leading to climate change⁵.

This underlines the need to focus on preventive healthcare through ensuring safe and healthy food in an environmentally sustainable way for everyone, wherever they are- at home, at the workplace, in school or outside. Inspired by the focus on preventive and promotive healthcare in the National Health Policy 2017 and flagship programmes like Ayushman Bharat, POSHAN Abhiyaan, Anaemia Mukta Bharat and Swachh Bharat Mission, the Food Safety and Standards Authority of India (FSSAI) has embarked on a large-scale effort to transform the country's food system in order to ensure safe, healthy and sustainable food for all Indians through the 'Eat Right India' movement.



SOURCES

1. *Chronic Hungry: FAO State of Food Security and Nutrition in the World, 2018.*
2. *Ahirwar & Mondal (2019). Prevalence of obesity in India: A systematic review Diabetes & Metabolic Syndrome, Clinical Research & Reviews Vol, 13:1, 318-321.*
3. *The economics of food safety in India—a rapid assessment by Wageningen Economic Research and ILRI 2017.*
4. *EAT-Lancet Commission: Brief for Farmers.*
5. *FAO: Food Wastage Footprint & Climate Change.*



Eat Right India aims to transform India's food safety and nutrition environment through a judicious mix of regulatory, capacity building, collaborative and empowerment approaches, thereby protecting and advancing public health and improve the quality of life across all walks of life.

The tagline '*Sahi Bhojan. Behtar Jeevan*' thus forms the foundation of this movement.

The Eat Right India movement is based on three key themes/pillars - **Eat Safe, Eat Healthy, and Eat Sustainable.**

EAT RIGHT- SIMPLY 3 THINGS



Safe

Ensuring personal and surrounding hygiene, hygienic and sanitary practices through the food supply chain, combating adulteration, reducing toxins and contaminants in food and controlling food hazards in processing and manufacturing processes.



Healthy

Promoting diet-diversity and balanced diets, eliminating toxic industrial trans-fats from food, reducing consumption of salt, sugar and saturated fats and promoting large-scale fortification of staples to address micronutrient deficiencies.



Sustainable

Promoting local and seasonal foods, preventing food loss and food waste, conserving water in food value chains, reducing use of chemicals in food production and presentation and using safe and sustainable food-packaging material.

Eat Right India, along with traditional regulatory activities to ensure safe, healthy and sustainable food for all, also focuses on capacity building and social and behaviour change for all stakeholders viz. food businesses as well as consumers. The idea is to educate and inform the citizens on the one hand, and train and build capacities of food handlers on the other, to bring in a culture of safe and wholesome food processes and habits. With this approach, several initiatives have been launched that target food businesses and consumers wherever they are.



EAT RIGHT CAMPUS INITIATIVE

A SETTINGS-BASED
APPROACH

EAT RIGHT CAMPUS INITIATIVE: A SETTINGS-BASED APPROACH

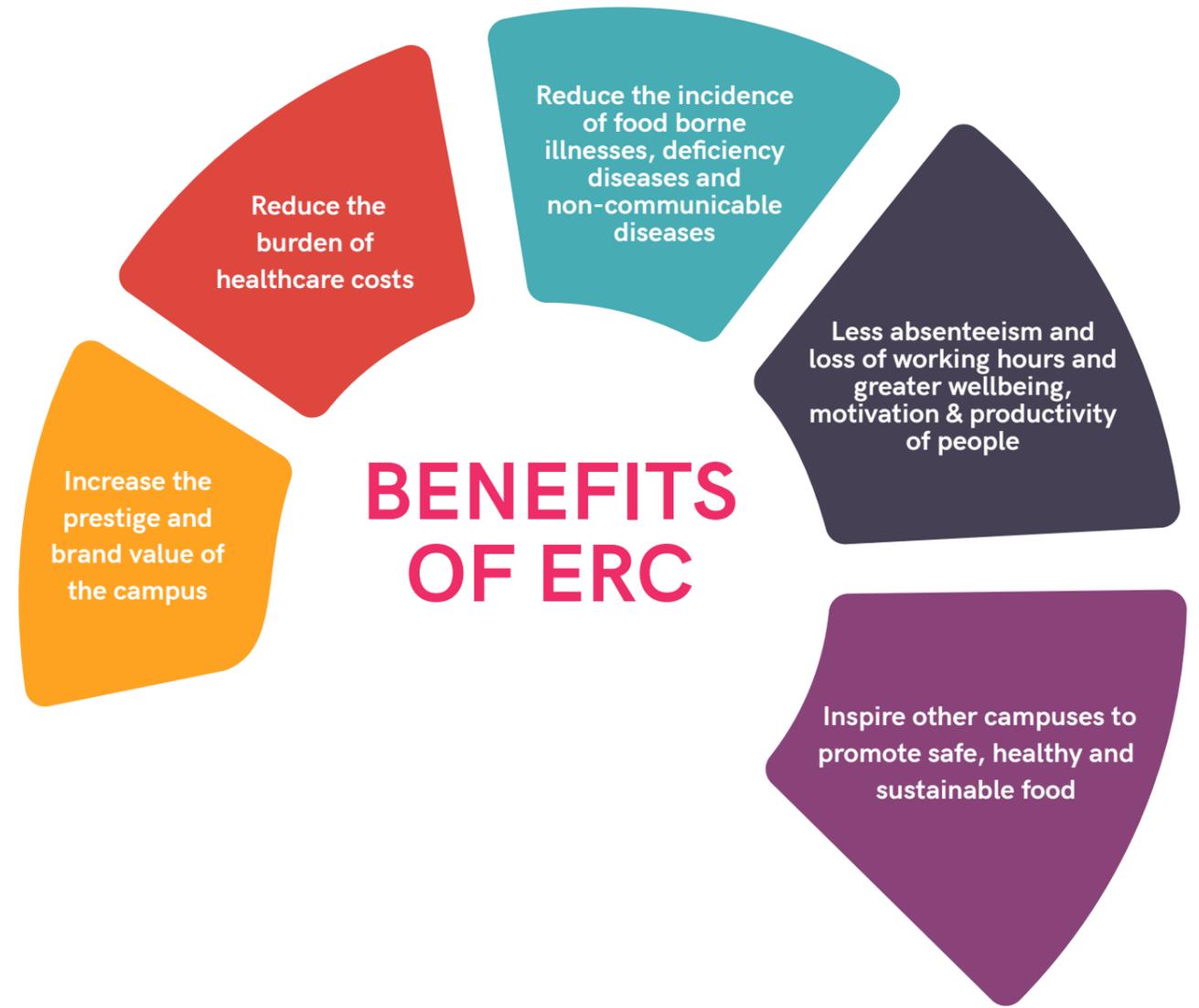
Food touches each and every aspect of our lives. To ensure safe, healthy and sustainable food everywhere- at home, at the workplace, or outside, it is important to ensure that each one of these areas is targeted specifically. Therefore, in order to scale-up Eat Right India and reach all sections of the society, a 'settings-based' approach has been adopted.

In a settings-based approach, interventions are tailored to that particular setting for maximum effectiveness. It is in this context that the Eat Right Campus initiative has been launched for colleges, universities, institutions, workplaces, hospitals, jails, tea estates, Anganwadi centres, hotels and so on to support them to ensure safe, healthy and sustainable food for the people who spend the majority of their time in these campuses.

The Eat Right Campus initiative has been launched for **colleges, universities, institutions, workplaces, hospitals, jails, tea estates, Anganwadi centres, hotels and so on** to support them to ensure **safe, healthy and sustainable food** for the people who spend the majority of their time in these campuses.



While the Eat Right Campus initiative is not mandatory to adopt, it can provide immense benefits to the campus and the individuals in the campus not only in terms of health but also economics. Safe, healthy and sustainable food in the campus would reduce the incidence of food borne illnesses, deficiency diseases and non-communicable diseases among the people in the campus. This means less absenteeism and loss of working hours and greater wellbeing, motivation and productivity of people. This would also reduce the burden of healthcare costs for the workplace, institution, hospital, jail or tea estate. All these factors would ultimately result in economic benefits to the campus. In addition, being recognized as an Eat Right Campus would increase the prestige and brand value of the campus, making it attractive for prospective students, employees etc. Last but not the least, this would also inspire other campuses to promote safe, healthy and sustainable food, thus resulting in the overall development of the country.





ELIGIBILITY FOR EAT RIGHT CAMPUS

Any campus with defined premises and food-handling activities like cooking, processing, retail etc. is eligible to become an Eat Right Campus (ERC).

The food establishments in such campuses could either be managed by the campus establishment and/or be run by third parties.



FOOD ESTABLISHMENTS INCLUDE



In-house Pantry and Food Area

Pantry:

A room/area where beverages, food, and sometimes dishes, cleaning chemicals, linens, or provisions are stored. It may serve in an ancillary capacity to the main kitchen.

Food Area:

A room with seating arrangements for people to eat or drink. It may range from a full-fledged canteen seating area to a small set-up indoors or outdoors.



In-house Canteen

Food service establishment in the campus in which food and beverages are prepared, served and eaten within the campus premises. It may or may not include a seating arrangement for customers.



Outsourced Catering Establishment/ Services:

A food service establishment that prepares food/beverages outside the campus premises and delivers prepared/cooked food and beverages to the campus.



Vendors

This includes tuck shops, retail outlets and other food selling outlets or food vendors within the campus that sell cooked/packed/fresh/raw food and beverage items in the campus. They may be owned by the campus authorities or any other private entity or may function independently.



CERTIFICATION PROCESS

Under this programme, pre-defined benchmarks have been created on four different parameters based on which a campus is evaluated and certified as an 'Eat Right Campus'. These parameters include:

Food safety measures

Steps to ensure provision of healthy food

Environmentally sustainable food practices

Building awareness among the individuals in the campus to make the right food choices

A detailed checklist has been created, based on these parameters, outlining the best practices to be followed by the campus.



Licensing and registration of food service establishments in the campus and compliance to food safety and hygiene standards as per Schedule 4 of the Food Safety and Standards (FSS) Act, 2006.



It also includes steps to create an environment of safe, healthy and sustainable eating habits such as promoting local and seasonal food, limiting unhealthy food choices and mass awareness activities.



Once enrolled in this programme, a campus first undergoes a self-assessment or a third-party audit by an FSSAI-empaneled agency based on all four parameters in the checklist - Safe Food, Healthy Food, Sustainable Food and Building Awareness.

For in-house food service establishments in the campus, evaluation is mandatory and a detailed section in the checklist, under 'Safe Food' is provided for the third-party audits.

For outsourced services and vendors, Hygiene Rating Certification through FSSAI-empaneled Hygiene Rating Auditors is to be conducted on a voluntary basis and the score is to be included in the score under the 'Safe Food' parameter. This is done to identify gaps and areas of improvement.



The campus administration then takes steps to address these gaps. A critical step of this process includes training of Food Safety Supervisors and food handlers in the campus through FSSAI's Food Safety Training and Certification (FoSTaC) Programme.



Once these improvements are made, the campus undergoes a third-party audit by the same FSSAI-empaneled agency and is given a rating on a five-star scale. If a campus scores three or more stars, it is certified as an 'Eat Right Campus'.

The certification is valid for two years. In order to ensure that these best practices continue, the campus appoints a nodal person to oversee these efforts and conduct periodic internal audits as required. The Food Safety Department or audit agencies may carry out regular inspections to ensure quality control until the certification is renewed.

CERTIFICATION PROCESS





STEPS FOR IMPLEMENTATION

-  Identification/nomination of campus and submission of enrolment form online on the website: www.eatrightindia.gov.in/EatRightCampus/checklist
-  Self-assessment/Pre-audit on the given checklist, available online at www.eatrightindia.gov.in/EatRightCampus/home , to identify gaps.
-  Food Safety Training & Certification through FSSAI-empaneled Training Partners, available at <https://fostac.fssai.gov.in/fostac/listoftrainingpartner>
-  Rectification of Gaps by the Campus Administration
-  Final Audit by FSSAI-empaneled third party auditing agencies, available at <https://fssai.gov.in/cms/third-party-audit.php>
-  Monitoring through regular Internal Audits and Inspections by the Food Safety Department or Audit Agencies

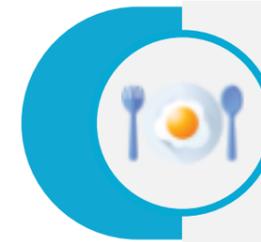




AUDIT PARAMETERS

To promote a systematic approach to safe, healthy and sustainable food, the audit and inspection checklists will be based on four key parameters as follows:

Safe Food



Parameters for food safety and hygiene in both catering and retail outlets on campus include design and facilities, control of operations, maintenance and sanitation, personal hygiene of food handlers, training and record keeping; identification and traceability of food items.

Healthy Food



Parameters include availability of healthy diets on campus, use of fortified foods promotion of local and seasonal foods and limiting foods high in saturated fat, trans-fat, sugar and salt.

Sustainable Food



Parameters include minimizing plastic use, reducing food waste, repurposing used cooking oil and water conservation.

Building Awareness



Parameters include engagement activities to build awareness and creating an enabling environment for a culture of eating right.

RATING SYSTEM

On the basis of the audit scores, the following ratings will be awarded:



Five Star (85% and above)
Exemplary



Four Star (75% and above)
Full Compliance



Three Star (65% and above)
Satisfactory Compliance



Two Star (55% and above)
Partial Compliance



Below 55%
Non Compliance



CERTIFICATE



is certified as



as per guidelines established by
Food Safety and Standards Authority of India



Excellent

Shri Arun Singhal
Chief Executive Officer
FSSAI

Auditing Partner

Training Partner

Implementation Partner

Valid up to

ROLE OF STAKEHOLDERS



Food Safety Department of State/UT:
Overall implementation and identification of campus; Verification of self-assessment report and Final Audit Report and recommendation for declaring Eat Right Campus.



Training Partners:
(<https://fostac.fssai.gov.in/fostac/listoftrainingpartner>):
Mobilizing campuses to participate, training Food Safety Supervisors; creating a pool of trainers, translation of training material etc.



Auditing Agencies:
(<https://fssai.gov.in/cms/third-party-audit.php>): Mobilizing participation, ensure timely audits, handholding for further improvements.



Corporates/Funding Partners:
Adopting campuses for ERC certification; promoting awareness, leveraging CSR funds for training, auditing, printing and translation of training material, etc.



Campuses:
Self-nomination/registration, conducting self-assessment as per the checklist; implementation and sustenance; mobilizing resources to become a certified ERC.

This implementation model has an in-built system of accountability, which adds credibility to this initiative and allows scaling-up in a standardized format.

Certification as an 'Eat Right Campus' by FSSAI creates a brand for that campus and adds prestige to its name.

Recognition as an 'Eat Right Campus' not only highlights the efforts of the campuses but also boosts their brand-value and allows them to shine as an inspiration to other campuses across the country.



HOW TO USE THE ORANGE BOOK

This book serves as a practical guide to implement the recommended steps required to fulfil the criteria of an Eat Right Campus. This book is aligned with the Eat Right Campus Checklist.

The sections - Ensuring Safe Food, Ensuring Healthy Food, Ensuring Sustainable Food and Building Awareness provide guidelines to be implemented in the campus on these particular topics. These sections are largely aimed at the campus administration.

The sections, Tips on Safe, Healthy and Sustainable Diets and Healthy Recipes are directed to individuals in the campus. These are simple, practical and useful tips to enable individual to make the right food choices at a personal level.

The Checklist for Eat Right Campus is also included and is available online at <https://eatrightindia.gov.in/EatRightCampus/checklist>

The references section provides a list of resources for further reading and more detailed explanations. More information is available on the Eat Right India website www.eatrightindia.gov.in and the

———— Eat Right Campus website ————
<https://eatrightindia.gov.in/EatRightCampus>.
Queries may be sent to eatrightcampus@gmail.com



**ENSURING
SAFE FOOD**

ENSURING SAFE FOOD

Food safety while preparing and serving food is critical to prevent food borne illnesses such as diarrhea and dysentery, typhoid etc.. This involves implementation of general hygiene and sanitary food practices as prescribed in the Food Safety and Standards Act, 2006 as well as maintenance of personal hygiene of food handlers and a clean environment in the food preparation and serving area.

Ensuring safe food in the campus involves 3 key steps.:



In any campus, the food service establishments are as follows:

In-house Pantry and Food Area



Pantry:

A room/area where beverages, food, and sometimes dishes, cleaning chemicals, linens, or provisions are stored. It may serve in an ancillary capacity to the main kitchen.

Food Area:

A room with seating arrangements for people to eat or drink. It may range from a full-fledged canteen seating area to a small set-up indoors or outdoors.

In-house Canteen



Food service establishment in the campus in which food and beverages are prepared, served and eaten within the campus premises. It may or may not include a seating arrangement for customers.

Outsourced Catering Establishment/Services:



A food service establishment that prepares food/beverages outside the campus premises and delivers prepared/cooked food and beverages to the campus.

Vendors



This includes tuck shops, retail outlets and other food selling outlets or food vendors within the campus that sell cooked/packed/fresh/raw food and beverage items in the campus. They may be owned by the campus authorities or any other private entity or may function independently.

This section is mainly targeted towards **in-house pantry and food areas and in-house canteens** within the campus premises to ensure compliance to Schedule 4 of the Food Safety and Standards (FSS) (Licensing and Registration of Food Businesses) Regulations, 2011 under the Food Safety and Standard Act, 2006.

This section is also applicable to outsourced catering establishment/services and vendors catering to the campus. While these food service establishments may not be directly under the control of the campus, the campus administration is, nevertheless, encouraged to share these guidelines with outsourced catering establishments and vendors to enable them to comply with Schedule 4 of the FSS Regulations 2011.

It is also recommended to get the Hygiene Rating Certification of these catering establishments/services and vendors done.



LICENSING AND REGISTRATION

All food businesses are required to have registration or license from FSSAI under the FSS Act 2006. Thus, the workplace kitchen, vendor, caterer, whether on-site or off-site, restaurant or any food service establishment is also required to have registration/license from FSSAI.

HOW TO GET A LICENSE

Depending on the turnover/star rating and/or location, the kitchen/vendor/caterer may apply for Registration, State Licence or Central Licence.

The application can be made online at <https://foodlicensing.fssai.gov.in/>

There is also a toll-free helpline no. 1800-112100, for any clarification regarding Licensing and Registration.

The Registration/Licence can be obtained for a period of 1-5 years.

LEGAL REQUIREMENT: WHAT THE LAW SAYS

The following section provides good hygiene and sanitary practices that are recommended in the workplace canteen, kitchen and pantry area.

For the detailed mandatory sanitary and hygiene requirements for the food service establishment please refer to

Part II and Part V of Schedule 4 of Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011

<http://www.fssai.gov.in/home/fss-legislation/fss-regulations.html>

under the Food Safety and Standard Act, 2006

<http://www.fssai.gov.in/home/fss-legislation/food-safety-and-standards-act.html>

GENERAL REQUIREMENTS ON GOOD HYGIENE AND SANITARY PRACTICES

Good hygiene and sanitary practices are to be followed in canteens, catering establishments serving the campus, shops, kiosks and the pantry area wherever applicable.

Good hygiene and sanitary practices are provided under the following sections:

1. Location, Layout & Facilities
2. Material Handling
3. Food Preparation
4. Holding, Packaging, Distribution, Serving & Transportation
5. Personal Hygiene
6. Support Services

1 LOCATION, LAYOUT & FACILITIES

1. Location & Surroundings
2. Layout & Design of Food Establishment Premises
3. Equipment, Work Surfaces & Containers
4. Facilities

1. Location & Surroundings

1. The canteen/catering establishment should be located away from any environmental pollution.
 1. No pollutants like dust, smoke, fumes
 2. No garbage dumps
 3. No stagnant water
 4. No pest infestations
2. The kitchen/food preparation area should not be located near a toilet, bathroom or urinal, especially those that are open-air or without doors.

3. Garbage bins must be covered and emptied regularly. Corridors/Staircases should be clean and uncluttered.
4. Supply of potable water must be available and premises should have sufficient storage tanks, washbasins and sanitary conveniences with proper sewage treatment / disposal facilities.

2. Layout & Design of Food Establishment Premises

The food service area must be well planned and designed to ensure the following

- Prevent cross-contamination at any stage of food handling
- Flow of food material should be in forward direction as shown in the figure.
- Impervious floors, ceilings and walls that are easy to clean with no flaking paint or plaster
- Area should be well-maintained to minimize accumulation of dirt, condensation of moisture and growth of moulds
- Adequate drainage with appropriate slope, covered and easy to maintain and clean
- Self-closing doors, with insect-proof wire mesh for windows



3. Equipment, Work surfaces & Containers

1. Food contact surfaces should be intact with no cracks, holes or crevices and be inert, durable, easy to clean, maintain and sanitize.
2. Table tops should be made of stainless steel or naturally occurring stone such as kadappa, granite or marble platforms with sealed edges
3. Rubber matting should be avoided on the cooking or cutting platform.
4. Equipment and containers used for food preparation and storage should be
 - Preferably stainless steel
 - Food grade / ISI mark
 - Designed for easy maintenance and cleaning
 - Properly fitted with cover or lid to prevent contamination
 - Have annual maintenance contracts wherever applicable e.g. water purifiers

4. Facilities

1. Proper ventilation and lighting systems
2. Personnel facilities and change rooms for food handlers
3. Storage tanks to be cleaned once in six months and records maintained
4. Drinking water to be stored in clean covered containers
5. Covered drains to prevent entry of insects
6. Non-potable and potable water pipes to be clearly distinguished
7. Cleaning and sanitizing area for utensils and equipment preferably with hot water
8. Hand wash facilities to have
 1. Porcelain/Stainless steel wash basins
 2. Preferably sensor taps
 3. Germicidal liquid soap
 4. Wet hands drying system / clean dry towels / tissue paper
 5. Covered trash bin, pedal operated and lined with garbage bag
9. Potable water (meeting IS 10500 standard requirements) supply for
 1. Cooking and drinking
 2. Utensils and equipment cleaning facilities
 3. Raw material washing facilities
 4. Potable ice and steam facilities
 5. Handwashing
10. Display of 'Food Safety Display Boards' at prominent places. They can be downloaded at <http://www.fssai.gov.in/home/safe-food-practices/food-safety-display-boards.html>



2 MATERIAL HANDLING

1. Purchasing and Receiving
2. Food Storage

1. Purchasing and Receiving

1. Purchase all raw and processed food materials from FSSAI registered vendors.
2. All incoming materials shall meet the requirements as laid down under FSS Act, 2006.
3. Records of materials and source of procurement shall be maintained in a register for inspection.
4. Purchase materials in quantities that correspond to storage capacity
5. For raw materials
 1. Ensure a dedicated receiving section which is clean and well maintained
 2. Check thoroughly for visible deterioration, damage or off- odour.

3. Discard spoiled or contaminated raw material if it contains parasites, or decomposed or extraneous substances
6. For packaged food material
 1. Check 'Expiry date'/ 'Best before'/ 'Use by' date
 2. Check packaging integrity and storage conditions
7. Receiving temperature of potentially high-risk foods such as milk and milk products and meat should be at or below 50C
8. Receiving temperature of frozen food should be -180C or below.
9. Fruits and raw vegetables should be washed/sanitized in a separate container on receiving



2. Food Storage

1. Food needs to be stored in a clean, dry, secured and controlled area.
 1. Dry food at room temperature
 2. Chilled or refrigerated food at 1 0C to 4 0C
 3. Frozen food at -18 0C or below
2. Clean all food storage areas regularly.
3. Once packed food is opened, use it as fresh food. The "use by" date applies only to unopened food.
4. Do not leave food in opened cans or packages. Once opened, transfer to another container for storage.



5. Do not leave perishable food such as fruits, vegetables, milk and milk products, meat etc. lying around; refrigerate immediately.
6. Insulated cool boxes or cool packs should be used for carrying food when transporting food over distances or going on trips.
7. Food stocks should be stored and used as per the concept of First-In, First-Out (FIFO) and food beyond its use-by/expiry date should be strictly discarded.
8. Ensure that vegetarian food is stored at the top and non-vegetarian food is stored at the bottom in the refrigerator.
9. Always store food in shelves, racks or cupboards and never on the floor.
10. Food should be sorted, cleaned, labelled and covered to prevent any contamination.
11. Racks and cans/ tetra packs shall be clean and free from contaminants-dirt, rust etc.
12. There should be no spilling of raw food on storage bins.
13. Only stainless steel or food grade containers should be used for storage.
14. Food should be stored at least 6 inches away from walls and above the floor.
15. Food containing allergens shall be segregated and stored separately in a manner to avoid accidental spillage.



3 FOOD PREPARATION

PRE-PROCESSING

1. Cleaning
2. Washing
3. Pre- preparation
4. Thawing

1. Cleaning:

- Clean and pick cereals, pulses and green leafy vegetables to remove contaminants and inedible / spoiled portions.

2. Washing:

- Wash food thoroughly with potable water before preparation to remove extraneous matter like surface dirt, visible soil and preservative and pesticide residues.
- Fruits and vegetables such as leafy salads to be consumed raw should be washed thoroughly in potable water and then in a solution of 50 ppm chlorine for not more than two minutes and allowed to dry for chlorine to escape. The 50 ppm concentration of chlorine is recommended for raw fruits and vegetables before peeling. For leafy vegetables to be consumed raw as salads, a concentration of 50 ppm is acceptable, followed by rinsing with potable water.
- Soak fresh vegetables like cauliflower in cold salted water for 20 minutes to remove insects and worm infestations.

3. Pre- preparation:

- Fruits and vegetables need to be peeled, trimmed and cut to remove inedible or spoilt parts before use.
- Cereals and pulses should be soaked for quicker cooking and for sprouting.

4. Thawing:

- A food product is said to be thawed when the core temperature of the product reaches between 1-5° C.
- Make sure frozen food has thawed before it is cooked unless otherwise specified on the label. Food once thawed should never be refrozen but should be cooked immediately.

- To prevent cross-contamination and facilitate safe thawing, frozen foods should be thawed in:
 1. the refrigerator below 4° C or
 2. potable running water at 15° C or below while it is still in the packet, for not more than 90 minutes.
 3. the microwave oven when it is to be cooked immediately.

CROSS-CONTAMINATION

Cross-contamination is one of the most common causes of food poisoning. It happens when harmful germs are spread onto clean food from other contaminated food, surfaces, hands or equipment by careless food handlers. Cross-contamination may occur from

1. Food to food
2. Hand to food
3. Equipment to food

To avoid cross-contamination, observe the following points

- Raw food/ meat/poultry and ready-to-eat foods should be kept separate at all times.
- Raw meat/poultry should be kept below ready-to-eat food in the refrigerator.
- Hands should be thoroughly washed before switching from preparing non-vegetarian products to any other activity.
- Work surfaces, chopping boards and equipment should be thoroughly cleaned before preparing food and after it has been used.
- Separate colour coded chopping boards and knives should be used for raw fruit/ vegetables/ meat/poultry and ready-to-eat food.

PROCESSING & POST PROCESSING

1. Cooking
2. Reheating of Food
3. Chilling
4. Handling High Risk Foods and Deep-Fat Frying

1. Cooking:

- Cook food to a safe internal temperature of 74 0 C to destroy microorganisms.
- Cook vegetarian and non-vegetarian foods separately to avoid cross-contamination.
- Check the internal temperature of large cuts/volumes of cooked meat, poultry, and seafood with a food probe thermometer.
- Keep food outside the temperature danger zone of 50C to 650C.
- Hot foods should be kept at 650 C and above in hot holding units - serving counter/ bain-marie.
- Foods that are chilled and intended to be served cold should be held at temperatures of 50 C and below.
- Use healthy cooking methods that minimize destruction of nutrients. For example, vegetables should not be over-cooked. Water in which vegetables are steamed or boiled should be used in soups and gravies.

2. Reheating of Food

- Food hot-held at 65° C and cooled to 21° C within 2 hours or cooled to 5° C or below within 4 hours and thereafter stored in the refrigerator at 1-5° C or frozen at -18° C is safe to reheat. Reheat food to minimum internal temperature of 74° C and hold for two minutes.
- Do not reheat food in hot-holding equipment like a bain marie as required temperature cannot be reached.
- Reheated food can be held at 63°C or more but any unused reheated food should be discarded.

3. Chilling:

- If food is prepared for later use, cool and chill it within six hours.
- Food that needs to be served chilled should be promptly refrigerated once room temperature is reached.
- To hasten cooling, start by reducing the size or mass of food by cutting large food items into smaller pieces and dividing large containers into smaller containers.

- Always ensure that proper temperature is maintained in the refrigerator and deep freezer.
- Preferred chilling methods are:
 - a. Using an ice-bath
 - b. Keeping food in shallow pans less than two inches deep
 - c. Stirring liquid foods
 - d. Refrigeration

4. Handling High Risk Foods and Deep-Fat Frying:

- High risk foods - Foods that are ready to eat and can easily support the growth of food poisoning bacteria if they are not handled carefully and/or foods that will not be cooked any further before being served. These foods should be used immediately or stored in the refrigerator for short periods only.
- Cut fruits/salads, fresh juices and beverages
 1. Use immediately or store in the refrigerator for short periods only.
 2. Check regularly for any fungal growth / change of colour, odour or gas formation in the bottle / Tetrapack container.
 3. Wash and rinse the juice-dispensing machine with potable water after every use.

Confectionery products

- Products containing fresh cream should be covered and stored under refrigeration, with proper labels indicating date of expiry.



Meat, poultry & fish products

- Cook thoroughly at an internal temperature of 75° C for at least 15 seconds or at effective time and temperature control conditions, for example, 65°C for 10 minutes or 70° C for 2 minutes.
- Prepare and process meat, poultry and marine products separately.



Water based chutneys, sauces etc.

- Wash and sanitize all raw ingredients
- Clean and disinfect chopping boards / grinding stone / mixers.
- Perishable/uncooked chutneys should be stored and refrigerated in covered containers and consumed immediately.



Ingredients that are added after cooking

- Raw ingredients used as a garnish on cooked food like coriander leaves, should be thoroughly washed and cleaned.

Foods transported to point of sale from the point of cooking

- Food should be reheated to at least 74° C before consumption and served within 4 hours of reheating.



Fried Foods

- Use only packaged oil for food preparation, frying etc.
- Use of fats/oils containing trans fats (like Vanaspati/margarine) should be avoided as far as possible.
- Heat only the required quantity of oil for deep fat frying at correct frying temperature. Strain and store used oil in a covered container and replenish with equal quantity of fresh oil if it is to be reused. If oil darkens, turns frothy or gummy it should be discarded.



Reuse of potentially hazardous foods/high risk foods and cut fruits displayed on the banquet is not recommended.

1. Holding
2. Packaging
3. Food Distribution, Service and Transportation

1. Holding - Hot & Cold

- Discard any hot food after four hours if it has not been maintained at a temperature of 63°C or higher.
- Never use hot-holding equipment to reheat foods.
- Never mix freshly prepared food with left-over food being held for service
- Protect all foods from possible contamination by covering them or using food shields.
- Maintain temperature of a cold food item below 5° C.
- Never store food items directly on ice. Place them in pans or on plates when displayed.

2. Packaging

The safety of food packaging material is of high importance as the food which is prepared hygienically can get contaminated when it comes in contact with unsafe / contaminated packaging material.

- Hot food should not be directly packed in plastic containers/bags.
- No food should be packed in newspaper.
- The food packaging material shall conform to all the Regulations and Standards layed down under the Food Safety & Standard Act, 2006.

3. Food Distribution, Service and Transportation

- Processed / packaged and / or ready-to-eat food shall be protected to minimize food spoilage during transportation.
- Handling of food with bare hands should be minimal.
- The vehicle being used to carry cooked/prepared/processed food should be clean and dedicated for this purpose, and should not carry anything else.
- Time required for transportation should be minimum, to avoid microbial proliferation.
- Temperatures of hot and cold foods should be maintained to prevent growth of pathogens.

- All foods during transportation must be kept covered.
- Containers used for transporting / serving foodstuffs shall be nontoxic, kept clean and maintained in good condition in order to protect foodstuffs from any contamination.



5 PERSONAL HYGIENE

1. Health Status
2. Behavioural & Personal Cleanliness

1. Health Status

- No personnel suffering from a disease shall be allowed to enter into any food handling area.
- Any person suffering from a disease shall immediately report the illness to the management and a medical examination of the food handler shall be carried out immediately.
- All personnel shall be medically examined once in a year and a record signed by a registered medical practitioner shall be maintained.
- All the personnel shall be compulsorily vaccinated against enteric group of diseases and a record shall be maintained.
- In case of an epidemic, all workers are to be vaccinated irrespective of the scheduled vaccination.

An illustrative pro forma is shown below and it can be downloaded from www.fssai.gov.in



PERFORMA FOR MEDICAL FITNESS CERTIFICATE FOR FOOD HANDLERS

(FOR THE YEAR)

(See Para No. 10.1.2, Part-II, Schedule-4 of FSS Regulation, 2011)

It is certified that Shri/Smt./Miss _____
employed with M/s _____, coming in
direct contact with food items has been carefully examined* by me on date
_____ Based on the medical examination conducted, he/she is found
free from any infectious or communicable diseases and the person is fit to work in the above
mentioned food establishment.

Name and Signature with seal
of Registered Medical Practitioner/
Civil Surgeon

***Medical Examination to be conducted:**

1. Physical Examination
2. Eye Test
3. Skin Examination
4. Compliance with Schedule of Vaccine to be inoculated against enteric group of diseases
5. Any test required to confirm any communicate or infectious disease which the person suspected to be suffering from on clinical examination.

2. Behavioural & Personal Cleanliness

Food handlers at the canteen / catering units should strictly follow good personal hygiene practices. Personal hygiene is a habit and is part of good grooming. A well-groomed person has a pleasing personality, is more attentive at work and is confident.

The Food Handlers should

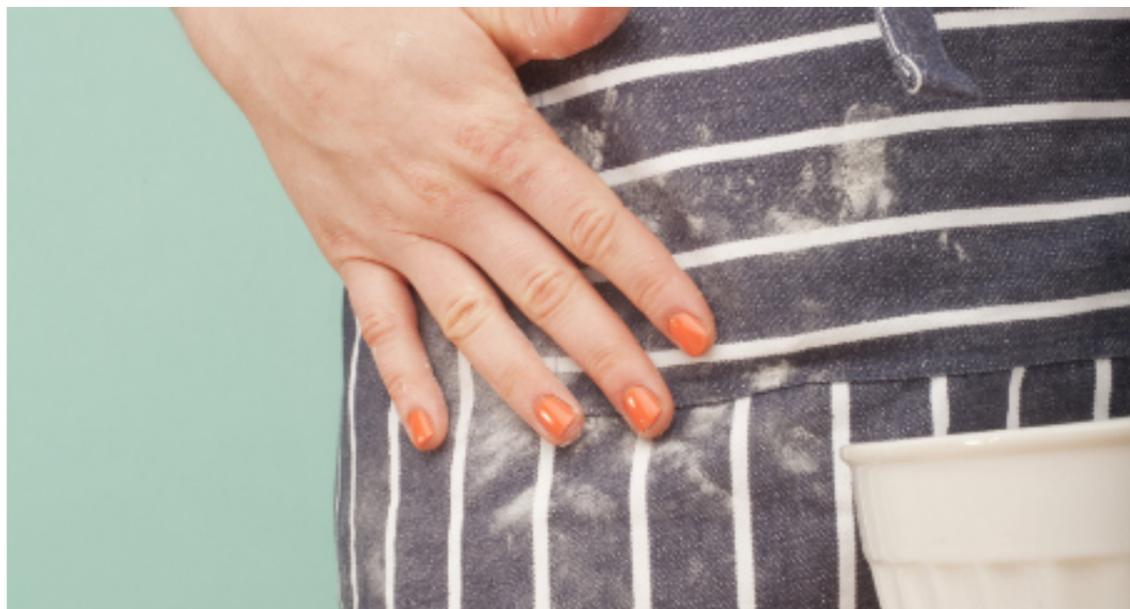
- Maintain good personal cleanliness by daily baths or showers, frequent shampoos, clean clothes, short nails and good dental hygiene.
- Wear clean protective clothing that is not torn. Uniforms are preferable.
- Wash hands properly as dirty hands are the prime culprits in transmitting contaminants to food.
- Immediately report any symptoms of illness or infection to their supervisor and consult a doctor.
- In case of a cut or wound, dress the wound with a waterproof dressing or cover it with a bandage and wear clean plastic gloves.
- If using gloves, change them every two hours or if you touch anything that would require washing hands.
- Use serving tools or utensils to serve and handle food whenever possible. Touch ready-to-eat food with bare hands as little as possible.
- Wear hairnets to prevent loose hair from entering food.
- Wash hands thoroughly with clean water and soap after touching or scratching any part of the body.
- Change gloves after each time when handling vegetarian food after handling non-vegetarian food.



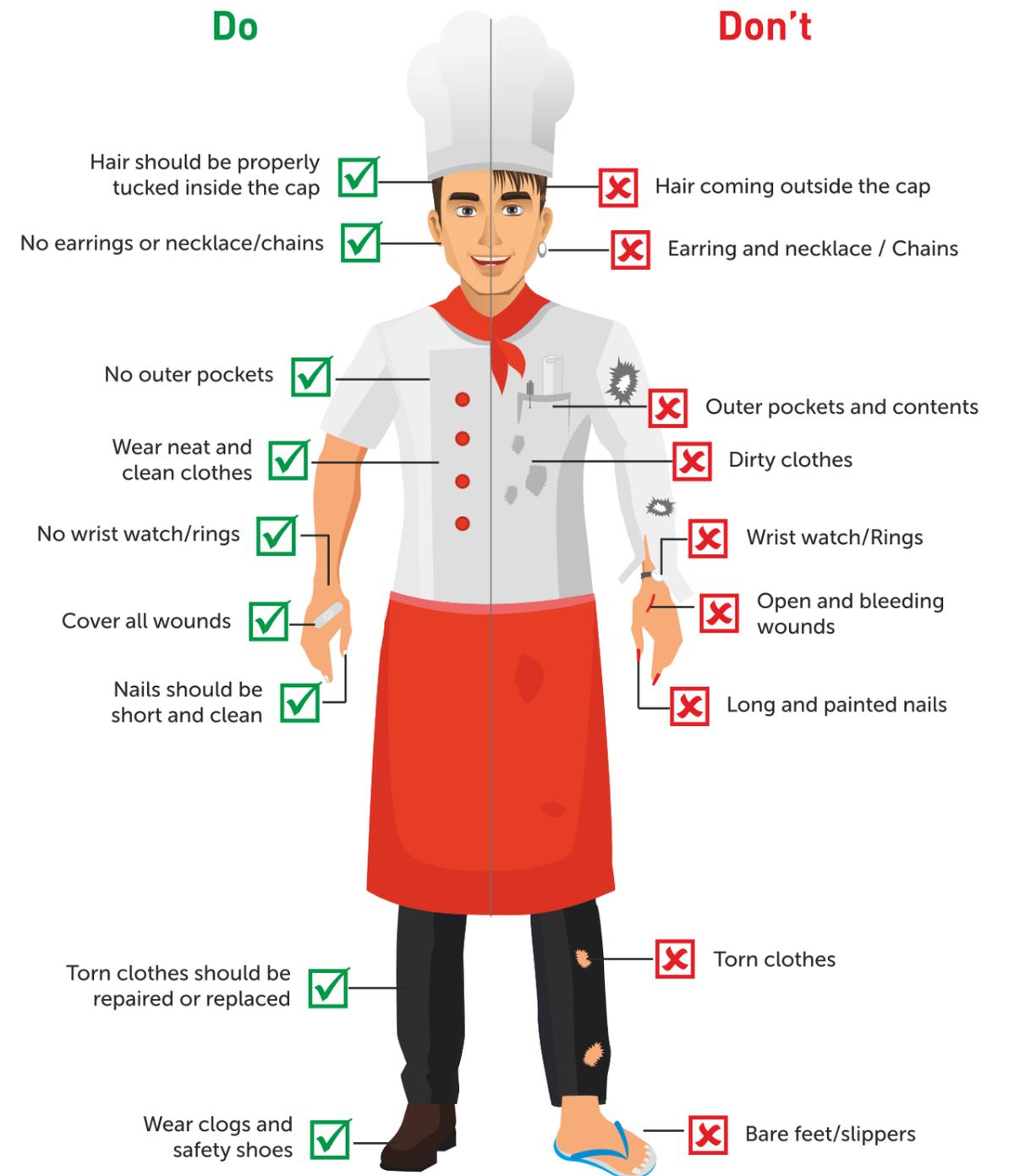
Habits to be Avoided

Do not

- Use your aprons to dry your hands.
- Use the dish cloth as a handkerchief or to wipe perspiration.
- Wash your hands in the kitchen sink after using the washroom. Use the washbasin instead.
- Chew paan masala or chewing gum in the food handling areas.
- Smoke or chew tobacco in the food handling areas.
- Taste or eat food in the food handling areas.
- Spit, cough or sneeze in the food handling areas.
- Come to work if you have a cold or a sore throat as coughing and sneezing can contaminate food and the food-handling area and infect other people.
- Scratch nose, run fingers through hair, rub eyes, ears and mouth, scratch beard or any part of the body.
- Use the same spoon each time to sample food.
- Touch the food and mouth contact surfaces of dishes and glasses such as the rim of the glass, inside part of bowls and the eating ends of spoons and forks.
- Use hands to remove leftover food from plates.
- Comb hair in food preparation areas.
- Wear jewellery while preparing food, especially intricate rings and bangles as they may harbour dirt.
- Change clothes or leave clothing in the kitchen.
- Wear street shoes inside the food preparation area while handling and preparing food.



Dos and Don'ts of Personal Hygiene



HOW TO WASH HANDS



1 Wet hands with water.



2 Apply soap



3 Rub hands for 20 seconds



4 Scrub palm to palm



5 Between fingers



6 Back of hands



7 Base of thumbs



8 Back to fingers



9 Fingernails



10 Wrists



11 Rinse under clean running water.



12 Dry using a clean paper or cloth towel.



13 Turn off the tap with the towel.

In case of non-availability of water, sanitize hands by using a hand sanitizer. Rub a few drops of hand sanitizer on the palms and allow it to air dry.

WHEN TO WASH YOUR HANDS

After using the toilet, urinal or anytime you visit the restroom for any reason



Before and after handling or preparing any food item



Before and after handling raw meat, raw poultry or other raw foods.

After sneezing, coughing or scratching any part of your body



Before serving food, beverages and setting or waiting tables.

After handling a tissue or handkerchief



After cleaning washing dishes or bussing tables

After touching your face, hair, clothes or any part of your body



Before putting gloves on, or anytime you take gloves off

After eating, drinking and after breaks.



After smoking, chewing gum or chewing tobacco.

Employees are required to wash hands **BEFORE** beginning work, **BEFORE** working with foods and **AFTER** any activity that could contaminate the food and equipment with which they are working.

6 SUPPORT SERVICES

1. Pest Control and Management
2. Cleaning & Maintenance
3. Drainage and Waste Disposal
4. Training

1. Pest Control and Management

The major pests encountered in any catering establishment include:

- Insects – cockroaches, flies, ants, and stored product pests
- Rodents – mice and rats
- Animals and Birds – cats, dogs, crows, sparrows and pigeons.

Pests can be controlled by:

- Sealing all cracks and crevices
- Environmental sanitation and proper garbage collection and regular disposal
- Adequate fly-proofing or wire-meshing of doors and windows
- Lights traps mounted preferably 4-6 feet off the ground
- Air currents or curtains mounted outside above the door to prevent the entry of flying insects and dust.
- Applying permitted insecticides beneath furniture and behind sinks after business hours
- Mechanical live traps for indoor rodent control.
- Lethal traps including sticky traps and regular snap traps.
- Checking the traps daily for rodents or their carcasses and disposing appropriately as soon as possible.
- Using poison baits placed along walls in runways, outdoors and indoors, where rodents are likely to find them. However, if baits are used indoors, rodents may die in some inaccessible place.
- NEVER using pellet baits indoors as mice may carry the bait away and drop it somewhere else where it could contaminate food or water.

Pests can be managed by



Pests can be managed by 4 Ds:

- Deny Entry
- Deny Food
- Deny Shelter
- Destruction

Deny Entry

- Buildings should be kept in good condition and repaired where necessary to prevent pest access and to eliminate potential breeding sites.
- Holes, drains and other places where pests are likely to gain access should be kept sealed. Wire mesh screens, for example on open windows, doors and ventilators, can reduce the problem of pest entry.
- Animals should not be encouraged in the premises.

Deny Food and Deny Shelter

- The availability of food and water encourages pest harbourage and infestation.
- Food should be stored in pest-proof containers and/or stacked above the ground and away from walls.
- Areas both inside and outside food premises should be kept clean.
- Where appropriate, refuse should be stored in covered, pest-proof containers.
- Establishments and surrounding areas should be regularly examined for any signs of infestation.

Destruction

- Pest infestations should be dealt with immediately. Treatment with chemical, physical or biological agents should be carried out without posing a threat to the safety or suitability of food. For severe infestations call the pest control agency.

2. Cleaning and Maintenance

- Cleaning is an essential part of the daily routine in all areas and departments in the food establishment.
- Cleaning schedules should be planned and maintained so that the premises, all equipment, furniture, fittings and fixtures are thoroughly cleaned.
- There should be no accumulation of garbage except in garbage containers and recyclable matter except in containers.
- The food establishment should have adequate facilities, for cleaning food, utensils and equipment with an adequate supply of hot and cold potable water where appropriate.
- All surfaces should be free from dust, dirt, grease, stains, cobwebs or any unacceptable matter.
- A cleaning and sanitation programme shall be maintained indicating specific areas to be cleaned, cleaning frequency, cleaning procedure and equipment and materials to be used for cleaning.
- All cleaning methods follow three basic steps:
 - a. Wash with detergent and scourer
 - b. Rinse in clean water
 - c. Sanitize with hot water or chemicals
- Cleaned dishes should be air dried (natural and not forced) and stored well to avoid contamination.
- Pans and glasses should be stored inverted.
- Food and mouth contact surfaces should not be touched while handling. For example, fingers should not touch the rims of glasses or be placed inside glasses or bowls while serving.
- Records of cleaning and sanitizing materials should be maintained. Some sanitizers may leave toxic residues, which should be rinsed off.
- All sanitizers work best at the correct dilution. If they are too weak, they do not work effectively. Check the dilution, contact time, safety precautions, shelf life and storage of all chemicals before use.

ATTENTION

1. Never store chemicals near food, food storage areas or any tools or equipment that will come in contact with food. Keep chemicals in their original containers, properly labelled, closed and locked in an area designated only for cleaning tools and chemicals.
2. Never use cups, pitchers or food storage containers to store, transport or mix chemicals.
3. Always read the instructions on the label before use, even if it is a product you use regularly.
4. Use safety posters or graphics, precautions that are either bilingual or use pictures that don't require further descriptions to warn employees about chemical safety.
5. Always spray chemicals holding the spray nozzle away from you.
6. Never mix two different chemicals together.
7. Always wear protective gloves and goggles when recommended.
8. Store all chemicals and detergents as per the Material Safety Data Sheet (MSDS), which contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product. MSDS sheets should be displayed where chemicals are stored.

Dish Cloth and Disposables

- A dishcloth is used in the kitchen to clean dishes and other surfaces.
 - a. They should be changed frequently when soiled and cleaned and sanitized every day by boiling in water for 15 minutes to kill any mould, mildew, bacteria and pathogens that may remain after washing.
 - b. After boiling they should be washed and dried well.
 - c. The dishcloths should look clean and smell fresh.
- Single service items or disposables that are made of plastic, paper, thermocol, aluminium foil, or leaves are designed to be used only once, as they cannot be sanitized.

3. Drainage & Waste Disposal

- Waste must not be allowed to accumulate in food handling, food storage and other working areas and the adjoining environment.
- Suitable provision must be made for the removal and storage of waste.
- The waste should be segregated before being disposed, into biodegradable and non- biodegradable bins.
- It should be disposed off regularly and efficiently to prevent contamination of food products.

All local, municipal, state and central regulations related to disposal of liquid, solid and gaseous effluents emanating from the kitchen / canteen facilities must be strictly adhered to by the administration.



4. Training

- Food handlers should be aware of their roles and responsibilities in protecting food from any contamination.
- They should have the necessary knowledge and skills that are relevant to food production, packaging, storing and serving food safely.
- All food handlers should be trained by the Food Safety Supervisor as per the FoSTaC programme of FSSAI.
- Periodic assessments of the effectiveness of training, awareness of food safety requirements and competency level shall be made.

FOOD SAFETY DISPLAY BOARDS

- Food Safety Display Boards (FSDBs) have been created by FSSAI for food service establishments.



- These have to be displayed prominently in the premises of all the canteens/vendors/cafeterias etc. for customer education and feedback.

KEEPING FOOD AND WATER SAFE IN THE CAMPUS PREMISES

- If possible, provide a common refrigerator in office spaces/common enclosed areas to store perishable foods and drinks such as milk, yoghurt, salads and fruits.
- If possible, provide microwaves or hot plates office spaces/common enclosed areas to warm their food.
- Ensure that all food appliances are cleaned daily/weekly and are always in working condition.
- Post guidelines and educate people on using food appliances appropriately.
- Provide clean drinking water and ensure it is available all around office spaces/common enclosed areas in non-plastic bottles.
- Use only potable or clean drinking water for making tea or coffee in any food/beverage service establishments

THE FOOD SAFETY SUPERVISOR

The Food Safety Supervisor (FSS) will be in charge of food safety for the entire workplace.

- One FSS is required for every twenty-five food-handlers.
- The FSS must be familiar with all relevant resources of FSSAI.
- The FSS is required to obtain the Food Safety Supervisor Training and Certification for Catering through the FoSTaC programme of FSSAI. This certificate is valid for 2 years.
- The link to the FoSTaC portal is <http://old.fssai.gov.in/FOSTAC/index.html>

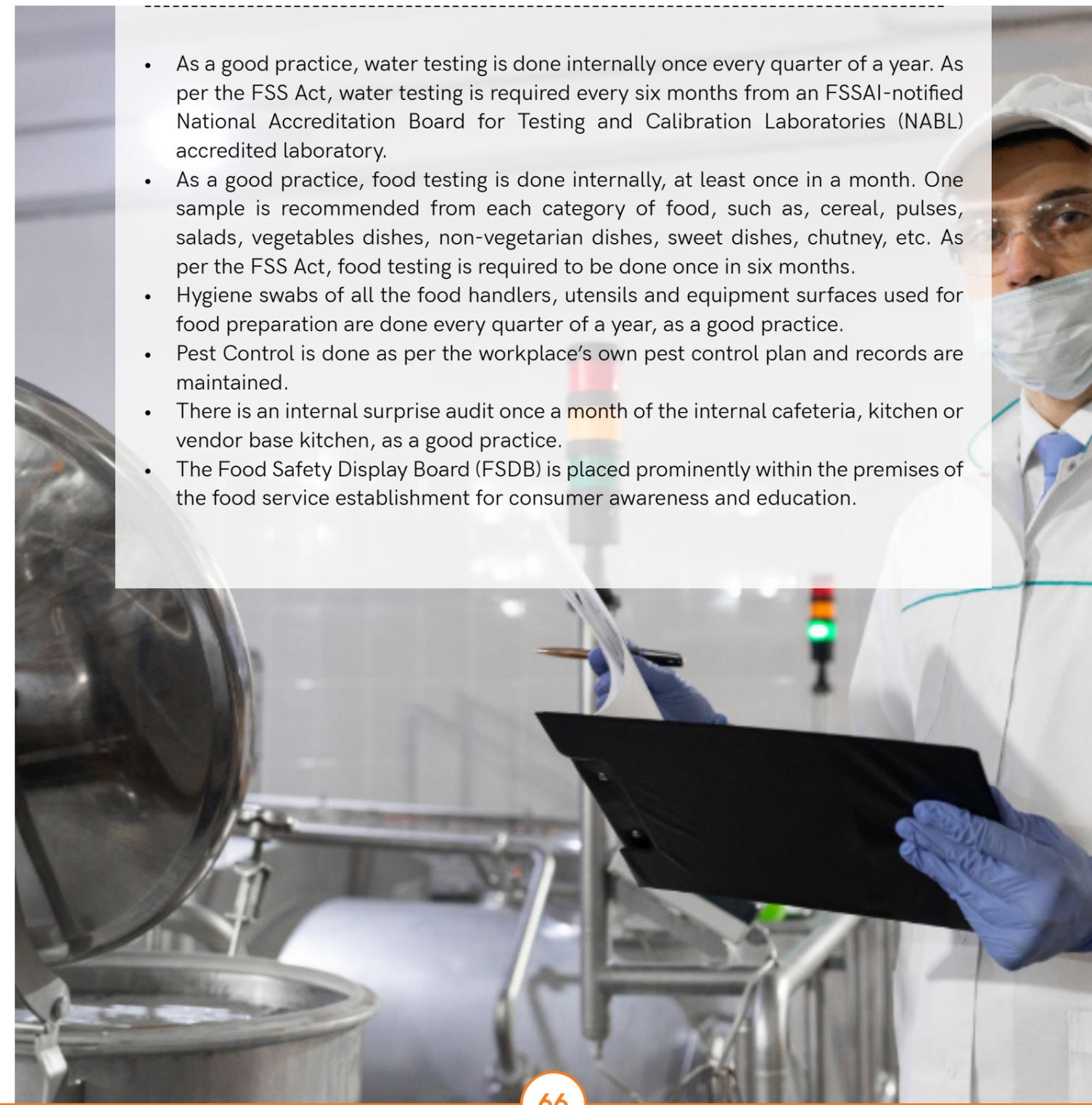
ROLES AND RESPONSIBILITIES

The FSS will ensure that

- Food vendors/caterers/kitchen for the workplace canteen have FSSAI licence and registration
- Food vendors, caterers or the workplace kitchen are compliant with FSSAI norms-Part II and V of Schedule 4 of Food Safety and Standards (Licensing and Registration of Food Businesses), Regulations 2011.

- Food handlers are trained by the FSS as per the FoSTaC programme for catering.
- There is a daily check on food handlers based on the guidelines specified in this book.
- Medical Records of food handlers are up-to-date.
- In case a food-handler is unwell (cough, running nose, cut/sores on the hand, skin disease on the hands, etc.), he or she would not be allowed to handle food until he/she is certified medically fit by a certified medical practitioner.

- As a good practice, water testing is done internally once every quarter of a year. As per the FSS Act, water testing is required every six months from an FSSAI-notified National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory.
- As a good practice, food testing is done internally, at least once in a month. One sample is recommended from each category of food, such as, cereal, pulses, salads, vegetables dishes, non-vegetarian dishes, sweet dishes, chutney, etc. As per the FSS Act, food testing is required to be done once in six months.
- Hygiene swabs of all the food handlers, utensils and equipment surfaces used for food preparation are done every quarter of a year, as a good practice.
- Pest Control is done as per the workplace's own pest control plan and records are maintained.
- There is an internal surprise audit once a month of the internal cafeteria, kitchen or vendor base kitchen, as a good practice.
- The Food Safety Display Board (FSDB) is placed prominently within the premises of the food service establishment for consumer awareness and education.





ENSURING HEALTHY FOOD

STEPS FOR HEALTHY FOOD IN THE CAMPUS

ENSURING HEALTHY FOOD

Making a variety of healthy food options easily available in the campus and creating an enabling environment to promote healthy food options and lifestyles are essential to nudge individuals in the campus to make healthier choices. When healthier food and lifestyle choices become habits over time, they help to create a culture of good health and wellbeing in the campus for everyone.

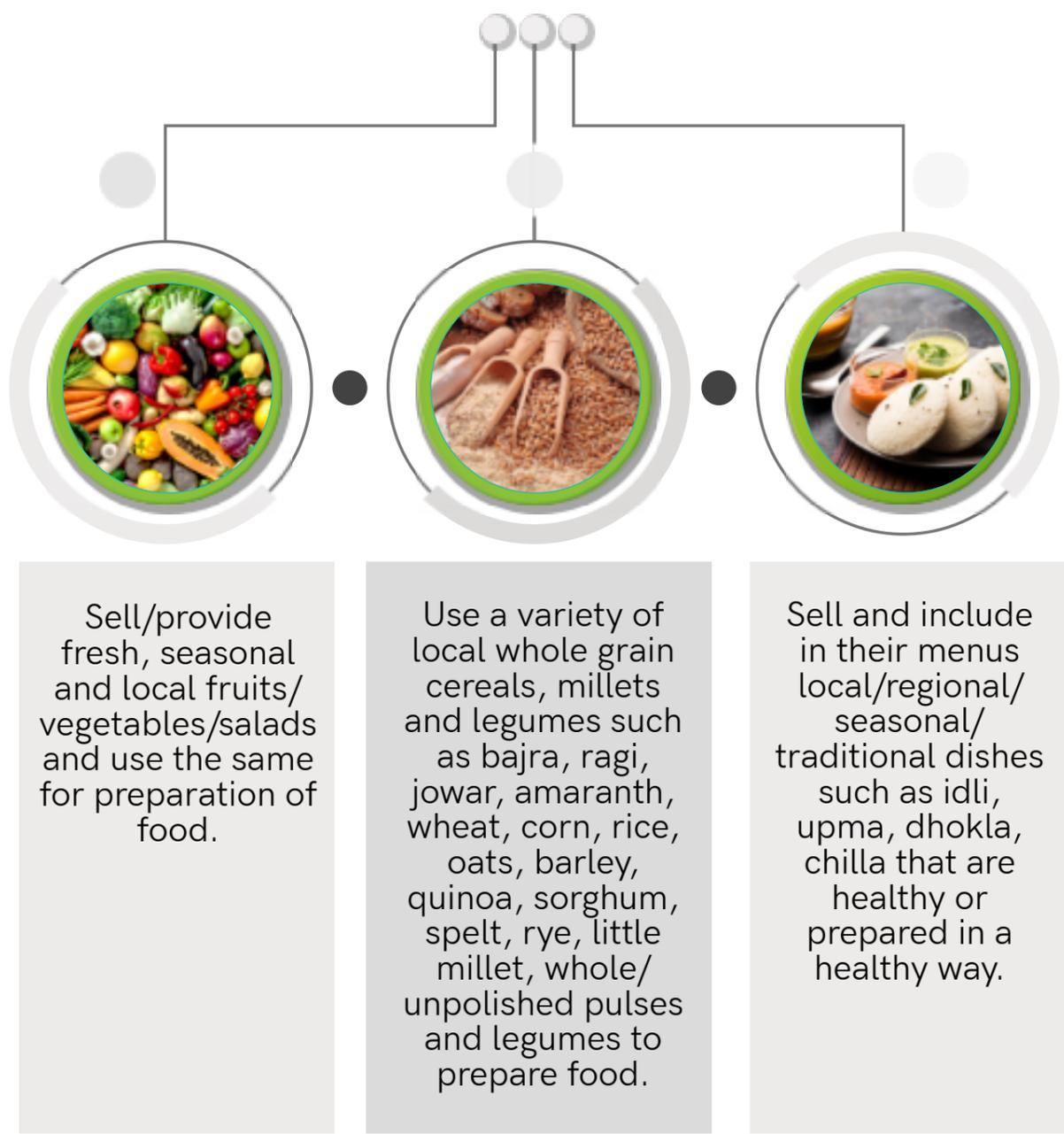




1 LOCAL, SEASONAL AND TRADITIONAL FOOD

Traditional Indian cuisine is rich not only in taste and diversity but also in nutrition. Traditional food is typically local and seasonal and thus meets our bodies' requirements. Owing to our fast-paced, modern lifestyles, the wisdom of our ancestors has been forgotten when it comes to eating healthy. However, local, seasonal and traditional food is necessary for good health.

The following are some steps that food service facilities in the campus should take:



2 HEALTHY FOOD OPTIONS

Eating a balanced diet is critical for good health. It provides us with all the nutrients that we need such as carbohydrates, proteins, fats, vitamins, minerals, water and dietary fibre. It boosts immunity and protects us from a variety of diseases. The food service establishments and the campus administration should ensure healthy food options are available to people in the campus, including visitors.

Food service establishments should:



Sell/provide healthy snack options such as nuts (fox nuts, walnuts, peanuts, almonds), puffed rice, puffed wheat, water chestnuts and roasted seeds (lotus, flaxseed, pumpkin etc).



Sell/provide healthy beverage options such as lemonade/shikanji, coconut water, buttermilk, aam panna etc)



Include a variety of food options in the menu that include all food groups such as cereals, pulses/dals, dairy (yoghurt, curd, milk, paneer, cheese), fruits and vegetables etc. in the menu.



Use healthy cooking methods like steaming/baking/roasting/boiling/roasting/grilling for food preparation.



Use different type of oils in rotation or oil blends for food preparations



Avoid the re-use of oil that has been used for frying



Display healthy food options attractively and prominently, at eye level and near the payment counter at canteens, cafeterias and vending kiosks.



Place healthy food options at the beginning and end of the food display line in cafeterias/canteens.



Describe healthy items with interesting adjectives to make them sound more appetizing in the menu card.



Pair healthy food and drinks together when displaying them in the canteen.



Place healthy low-cost items near the canteen's most expensive items both on the menu and in the display line.



Place healthy options at the four corners of the menu page, as they are more likely to be chosen.



Make healthy food options more visible by displaying colourful photos of healthy food next to the relevant menu items on the menu card.



Give customers the option to pre-select their lunch options from the canteen menu so that they can make more rational choices.



Designate healthy options as 'vegetable of the day', 'specials for today'.

The campus administration should:



Mark out shops, cafes and takeaways that provide healthier options around the campus and publicize their names by listing them in a prominent place or sharing them in an email list or bulk phone messages.



Collaborate with nearby shops cafes, takeaways and other food vendors to offer healthy foods and promote nutritious specials, at reasonable prices.



Ways to Keep Gatherings/Meetings Healthy in the Campus Premises

- 1 Serve water during meetings. Keep a flask of clean drinking water and glasses on or near the meeting table for easy access.
- 2 Serve beverages such as coconut water, lemonade, aam panna and buttermilk especially in the summer.
- 3 Do not serve artificially sweetened or aerated beverages, including sweetened fruit juices.
- 4 Keep tea and coffee to a minimum and serve sugar and milk on the side. If possible, provide additional options such as green tea or herbal tea.
- 5 Use small cups and plates for serving to avoid overconsumption of drinks and snacks during meetings/gatherings.
- 6 Do not serve fried snacks such as samosa, namkeen or biscuits or cookies.
- 7 Serve raw/roasted and unsalted assorted nuts, puffed wheat, puffed rice, roasted channa, lotus seeds, fox nuts, pumpkin seeds, flaxseed, steamed idli, dhokla or fruits as snacks.
- 8 Use safe serving materials to serve food and beverages. Use only utensils made of food grade plastic or glass, stainless steel or food grade material. Do not use newspaper or polythene bags and avoid using disposable ware.

3

LIMITING FOODS HIGH IN SALT, FAT AND SUGAR

Lifestyle diseases or Non-Communicable Diseases such as diabetes, hypertension, heart disease are on the rise these days. One of the major causes of these diseases is the consumption of foods high in fat (especially trans fat), sugar and salt and the lack of exercise.

In order to prevent these diseases, it is important to limit the intake of saturated fat, trans fat, sugar and salt in the daily diet.

Therefore, food service establishments should:

- Avoid vanaspati/bakery shortening/margarine (hydrogenated fat) in food preparation.
- Limit selling/serving foods high in fat/oil, sugar and salt (eg: samosa, chhola bhatura, french fries, fried food, cakes, sweets, namkeen, ice creams etc) to less than 10% of overall stock.
- Limit the use of sugar sweetened and /or aerated beverages to less than 10% of overall stock.
- Avoid putting salt/sugar/pickle on food tables or serving on the side.
- Limit the amount of salt, sugar and oil while preparing/cooking food.
- Track and monitor the purchase and use of salt, sugar and oil.
- Provide only one choice of dessert in a day, if at all.

- Serve fresh fruits for dessert at least 2-3 times a week.
- Designate “No Fried Food Day” once a week.
- Ensure that the canteen food is prepared with limited amount of oil and salt.
- Use smaller plates, bowls and portions in canteens with appropriate reduction in prices so as to avoid overconsumption and wastage of food.
- Display nutrition information for food served as far as possible. Total calories, fat content, especially trans-fat content, salt and sugar content should be displayed prominently.
- Limit vending machines or vendors in the campus that primarily serve fried snacks, aerated beverages, highly-processed foods and foods that contain refined flour (maida). Stock vending machines with healthier food options.



4

FORTIFIED FOODS

Fortified foods are staple foods such as wheat flour, rice, oil, milk and salt to which key vitamins and minerals have been added to improve their nutrient content. In India, fortified wheat flour, rice, oil, milk and salt are being made available widely. Eating fortified foods is one strategy to meet the daily requirement apart from eating a varied diet and taking nutrient supplements. This protects us from diseases such as anemia, nightblindness, weak bones, Iodine Deficiency Disorders etc. that severely hamper our health, well being and productivity.

Therefore, food service establishments should use fortified wheat flour, rice, oil, milk and salt for cooking in kitchens on-site and off-site.

Fortified food items can be identified with the +F logo on their packets.



For more information and to find out where these are available, visit www.ffrc.fssai.gov.in.



5

HEALTHY LIFESTYLE

Promoting General Health and Wellbeing

In addition to eating the right kind of food, it is important to also follow healthy lifestyle practices. To create an enabling environment for people in the campus, the campus administration can take the following steps to promote general health and wellbeing.

Place a weighing scale/machine in a designated corner in the premises or near the washroom.



Create a nutrition/health club where people can do activities together, exchange healthy recipes, share information and learn from each other.



Organize periodic health check-ups or health camps where basic minimum health parameters such as blood pressure, blood sugar, body weight, waist circumference etc. can be checked for early detection of diseases.



The members of the campus can take a pledge or make resolutions to improve one small thing or change one tiny habit in the course of the coming year. Some examples are: eating 5-7 servings of fruits and vegetables a day, giving up smoking or aerated beverages, reducing salt intake to only one teaspoon everyday.



Organize discussions so that people can talk about their health concerns, especially those that are related to the work environment.



If there is a garden or park nearby, consider having meetings in the park whenever possible. Consider hosting gatherings/parties or events in the garden or park.



Observe special days/weeks such as World Food Day, Yoga Day, World Health Day, National Nutrition Week/Month and organize games, activities and information sessions for the entire office.



Celebrate "Healthy Family Day" once a year in which families can be invited to the workplace for information on safe and nutritious food, possible health check-ups and participate in health talks, camps etc.



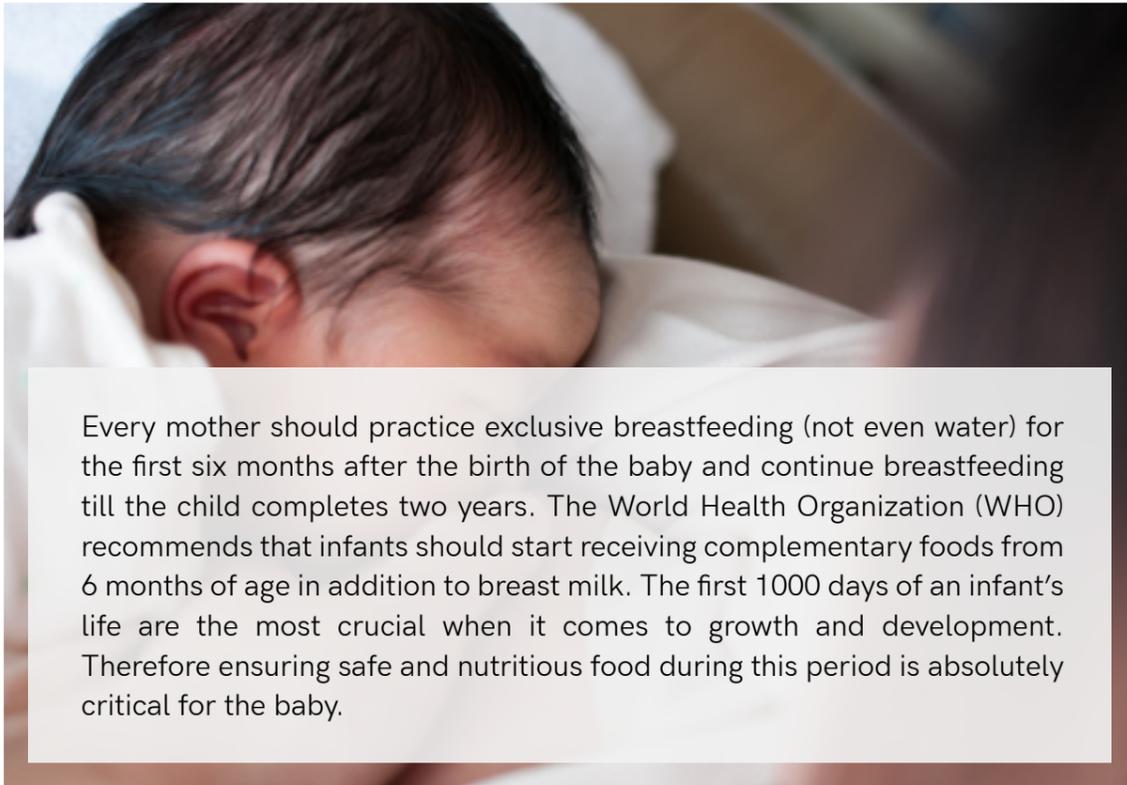
MAKING THE CAMPUS 'BREASTFEEDING FRIENDLY' FOR MOTHERS

In addition to the health and wellbeing of people in the campus, it is equally important to ensure that the new-borns and infants of people in the campus receive the care they need, especially with respect to nutrition. Breast milk is "safe and nutritious food" for the baby. Since new-borns and infants are completely dependent on their parents, it is important for the campus administration to support people when it comes to their baby's health and wellbeing by making the campus 'Breast-feeding friendly'.

BREAST MILK

BENEFITS

- Provides essential nutrients to new-borns and infants.
- Acts as the baby's first vaccination, strengthens the immune system and keeps infections at bay.
- Enhances IQ (intelligence quotient) of children.
- Lowers risk of diseases such as diabetes and obesity later in life.
- Provide all children, rich or poor, with a healthy start to life.
- Is readily available and a natural method of providing nutrition to babies.
- Is environment friendly and a cost-effective way to ensure good health of all children.
- Serves as a natural contraceptive for mothers.
- Reduce chances of postpartum depression for mothers.
- Ensures faster post-delivery healing for mothers.
- Lowers the risk of maternal cancers.
- Brings new mothers back to shape faster.



Every mother should practice exclusive breastfeeding (not even water) for the first six months after the birth of the baby and continue breastfeeding till the child completes two years. The World Health Organization (WHO) recommends that infants should start receiving complementary foods from 6 months of age in addition to breast milk. The first 1000 days of an infant's life are the most crucial when it comes to growth and development. Therefore ensuring safe and nutritious food during this period is absolutely critical for the baby.

Making campuses 'breastfeeding-friendly' can help improve breastfeeding rates and duration, contributing to overall maternal and child health in the long run.

The following steps are recommended to be implemented:

Educate People	Educate people about the importance of breastfeeding and nutrition during the first 1000 days of an infant's life with the information provided here.
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Allow time for breastfeeding	The campus administration should allow time to mothers to breastfeed their baby in the premises. If there is no provision to bring infants to campus and breastfeed, mothers should be given time to express breast milk at a suitable place store it so that they can feed it to the baby once they return home.
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Provision for lactation room	<p>Provisions should be made for a lactation room (or more if required) and a crèche or childcare facility in the campus. Setting up a "lactation room" is simple and does not require huge infrastructure. The key points include:</p> <ol style="list-style-type: none"> 1. Private, clean, quiet, warm room or space - such as a screened off area, which needs to be big enough to manoeuvre a pram; a low comfortable chair. 2. To ensure privacy, windows or glass walls need to be screened. 3. Basic facilities to be provided include: a lockable door; a washbasin; a refrigerator for storing expressed breast milk; a table; a clean space to store equipment (e.g. a small locker or cupboard); the availability of electricity.
-------------------------------------	--

Maintain hygiene of lactation room	It should be ensured that the lactation room and crèche or childcare facilities are well maintained, comfortable, safe and hygienic.
---	--

Allow time for breastfeeding	If setting up of crèches is not possible, efforts to link women to nearby facilities should be made.
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PROMOTE EXERCISE

The following ways can be adopted to promote exercise in the campus:

- Organize campus challenges to encourage employees towards physical activity such as :
 - 'Take the stairs daily/weekly' challenge
 - Sports events
- Organize campus meetings/gatherings etc. 'standing up' or 'walking meetings' for one-on-one discussions.
- If possible, use standing desks in the campus premises as workstations.
- If possible, organize yoga/aerobics/fitness classes in or near the campus.
- Organize special yoga or exercise sessions for pregnant women and lactating mothers for their wellbeing.
- If possible, provide a gym in the campus or discounted gym memberships outside the campus.
- Organize short walkathons or walking sessions, especially after lunch. This will help reduce sleepiness and make people feel more active.
- Discourage people from prolonged sitting in campus areas. Encourage people to get up, move and stretch every 45 minutes or so.
- Encourage people to do tasks that can be done while moving e.g. walk or move about when they are talking on the phone or walk to a co-workers desk instead of calling or emailing, walking around the campus instead of taking a shuttle.
- Specifically encourage pregnant women to take small breaks from their workstations like going for a short walk or meditating during lunch hours.



ENSURING SUSTAINABLE FOOD

ENSURING SUSTAINABLE FOOD

Environmentally sustainable food practices and habits are important to minimize environmental hazards such as greenhouse gases, soil degradation etc. which ultimately have a negative impact on the health of individuals in the campus. These practices include reducing food and water wastage, repurposing used cooking oil and reducing the use of plastic food and beverage containers and utensils.

NO FOOD WASTE

In India, while millions of people starve every day, a huge amount of food is wasted. Therefore, reducing food waste is as important as making sure surplus food is given to a food bank in a timely manner to serve those in need.

Thus, food service establishments should:

- Monitor food waste daily in kg (dry and wet waste) and conduct food waste audits.
- Encourage people to reduce food wastage by serving smaller portions at a time. Additional servings can be taken if required.
- Encourage people to take only as much as they need at a given time by charging food by weight.
- Ensure that food is prepared as per the requirement for meetings, office parties and other events.
- Work with the Food Safety Supervisor (FSS) to ensure that food prepared and served in the campus is stored properly and not allowed to spoil as it increases food waste.
- Connect with the Indian Food Sharing Alliance facilitated by FSSAI to distribute surplus food to those in need. More information on this is available on the FSSAI website- www.fssai.gov.in/sharefood as part of the Save Food, Share Food initiative. Efforts towards reduction of food waste and sharing food should be documented for future reference.



REPURPOSE USED COOKING OIL

It is harmful to reuse cooking oil that has been used for frying. It contains harmful particles and trans-fat, which are hazardous to health.

FSSAI has Regulations for the use of cooking oil, specifying the Total Polar Compounds that are permitted, beyond which the oil should be discarded.

Moreover, to avoid wastage of oil, FSSAI has initiated a project called **RUCO to repurpose this oil into biodiesel.**

Food service establishments in the campus should:

- Ensure that fresh vegetable (cooking) oil having Total Polar Compounds (TPC) more than 15% and used vegetable (cooking) oil having TPC more than 25% is not used. Conduct customized checks either through an SOP or the TPC meter. If using equipment, staff should be trained to use and clean it.
- Maintain Used Cooking Oil disposal records as per FSSAI directions, if consumption is above 50 litres/day.
- Aggregate used cooking oil and store it separately from fresh oil with proper labelling.
- Ensure that the stored used cooking oil is collected by authorized aggregators and then used for repurposing into biodiesel.

A close-up photograph of water splashing into a black bucket. The water is captured in mid-air, creating a dynamic scene with many small droplets and larger splashes. The background is a soft-focus green, suggesting grass. The lighting is bright, highlighting the texture of the water.

REUSE WATER

Water is a precious resource and therefore should be conserved. Water is wasted in multiple ways on a daily basis. Therefore the campus should invest in a rain water harvesting plant and reuse and recycle water, with treatment if necessary.

NO PLASTIC USE

Plastic is not only bad for health when used as serving material for food but also bad for the environment.

Some ways in which the campus food service establishments can minimise plastic use is to:

- Use glass, ceramic, stainless steel utensils for serving food, which can be washed and cleaned for reuse.
- Use bio-degradable materials for serving and packing food.
- Use cloth or paper bags made of recycled paper.
- Collect empty plastic bottles, plates, cans etc. and recycle them in a central place in the campus rather than disposing them in the garbage.



BUILDING AWARENESS

BUILDING AWARENESS

Building awareness among members, students, residents, workers/staff and visitors in the campus is critical to creating a culture of eating right. Awareness is the first step to making a change in eating and lifestyle habits for better health and well-being. Habits define what we do everyday, which affect health outcomes throughout life. Building awareness through engaging methods and providing little 'nudges' in the environment towards bringing about better food choices can be very effective in bringing about behaviour change. This can be done through outreach events, activities, messaging across the campus in key places, social media and many other ways. Creating a two-way communication channel with the members of the campus also enables them to be active participants in taking responsibility for their own health. The following section provides an overview of various suggestions for building awareness as well as resources developed by FSSAI.



MESSAGES

It is important to build awareness among those who are in the campus as well as visitors. Some ways in which the campus administration can build awareness are-

- ▶ Integrate health promotional messages into the lifestyle of the residents and visitors of the campus. For example, if computers are used frequently, health promotional messages could be displayed as screen savers. Scheduled messages could be flashed on official cell phones and/or computers.
- ▶ Habituate healthy lifestyle and dietary behaviours through simple messages that are **repeated**, **reinforced** and **rewarded** regularly.



Messages could be displayed in the following ways-



1

Putting informative posters at relevant places in the campus.

Posters could be downloaded from the Eat Right India portal or could be designed based on the relevant information given in FSSAI's resources.

Posters should be put up at prominent places where they are easily visible and grab attention.

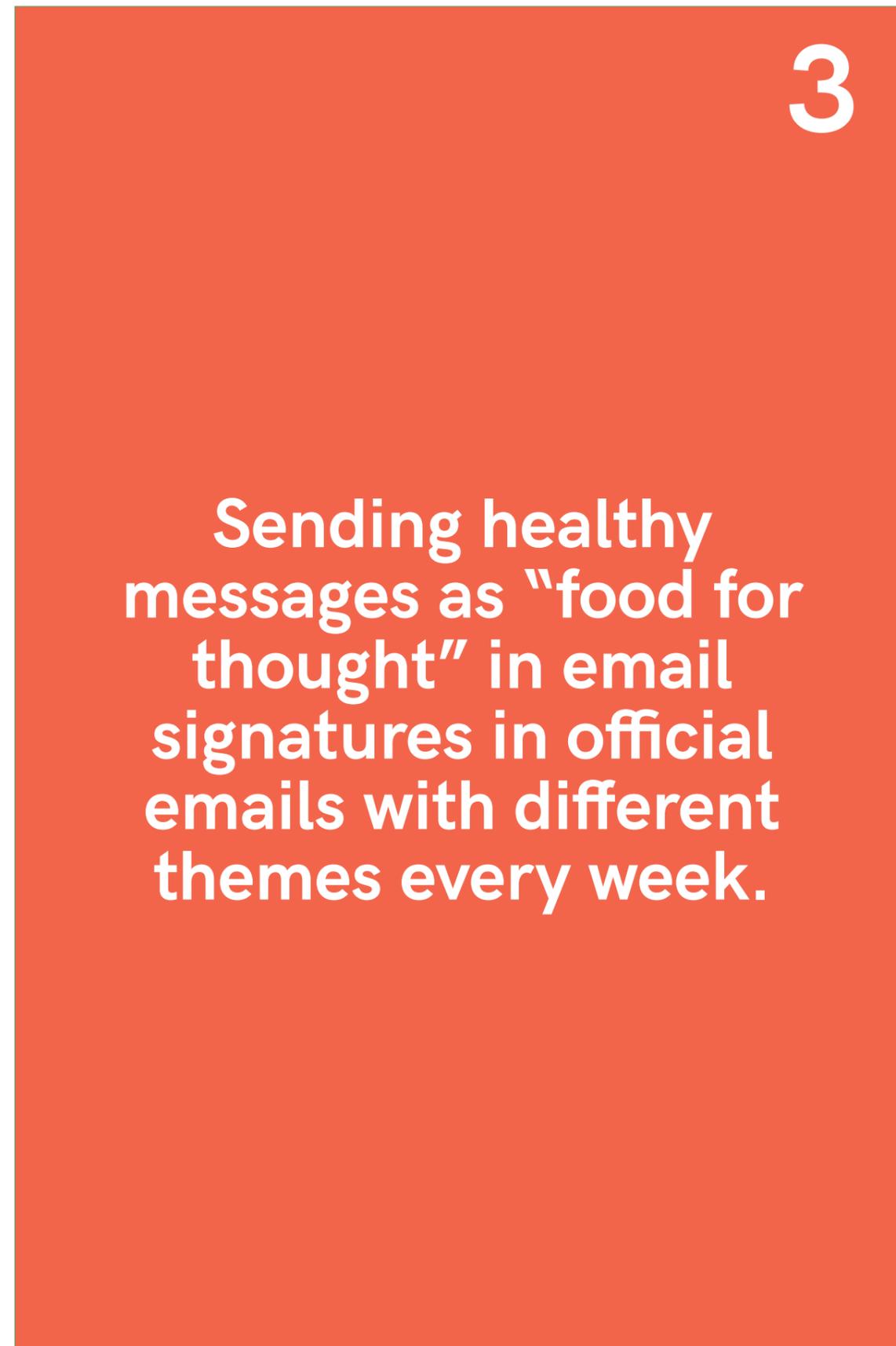
Places where people gather or spend time waiting are also good locations such as the tea/coffee machine area or meeting rooms.

The message on posters should be relevant to the tasks that people perform in that place. For example, put posters on washing hands near the hand-washing area and the entrance to the eating area so employees see it at the right time and the right place.



2

Displaying healthy messages on office computers as screen savers, TVs and screens around the office, coasters, office merchandise etc. For example, flash messages to remind people to drink enough glasses of water or do stretching exercises periodically.



Sending healthy messages as “food for thought” in email signatures in official emails with different themes every week.

Host challenges/contests such as-

- "Try a different fruit or vegetable every day"
- "Healthy lunch recipes"
- "Healthy lunchbox for a week"



Organize lectures, workshops or question-answer session with a qualified nutritionist or dietitian if possible. Another alternative is to organize an online chat with a qualified nutritionist or dietitian.



Organize healthy cooking demonstrations.



Organize a demonstration for testing common adulterants at home based on the DART book of FSSAI.

Organize a workplace 'healthy lunch club'. Those interested can contribute and share the cost of lunches. Another option is to hold a 'let's do lunch' meeting where everyone brings a healthy dish to share.



With the help of subject experts, organize talks, events, and question-answer sessions for employees with special dietary needs such as those suffering from diabetes or food related allergies or any other health and nutrition related topics.



With the help of subject experts, organize talks & provide information to pregnant and lactating women on "the importance of first 1000 days of an infant's life", "making pregnancy stress-free", "importance of breastfeeding", "simple exercises at the workplace during pregnancy" and "healthy diets for pregnant and lactating women". Demonstrations and talks should be organized at workplace crèches as well.



ACTIVITIES



FEEDBACK MECHANISM

Regular feedback from people in the campus should be taken on their concerns and requirements regarding food safety and nutrition in the campus. For example, a feedback box may be placed in a prominent place where employees can give feedback that can be reviewed periodically. Any other method for taking feedback such as email surveys or focused group discussions may be used.



RESOURCES

FSSAI has created a wide variety of audio-visual resources along with print material for building awareness.

BOOKS

These books can be downloaded from the Eat Right India website: <http://eatrightindia.gov.in>



The Pink Book, a guide to food safety and nutrition at home.



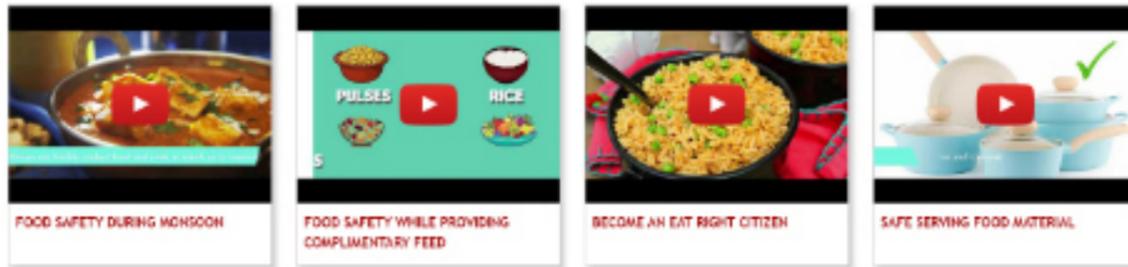
The Yellow Books, interactive activity books for school children to promote safe and healthy habits.



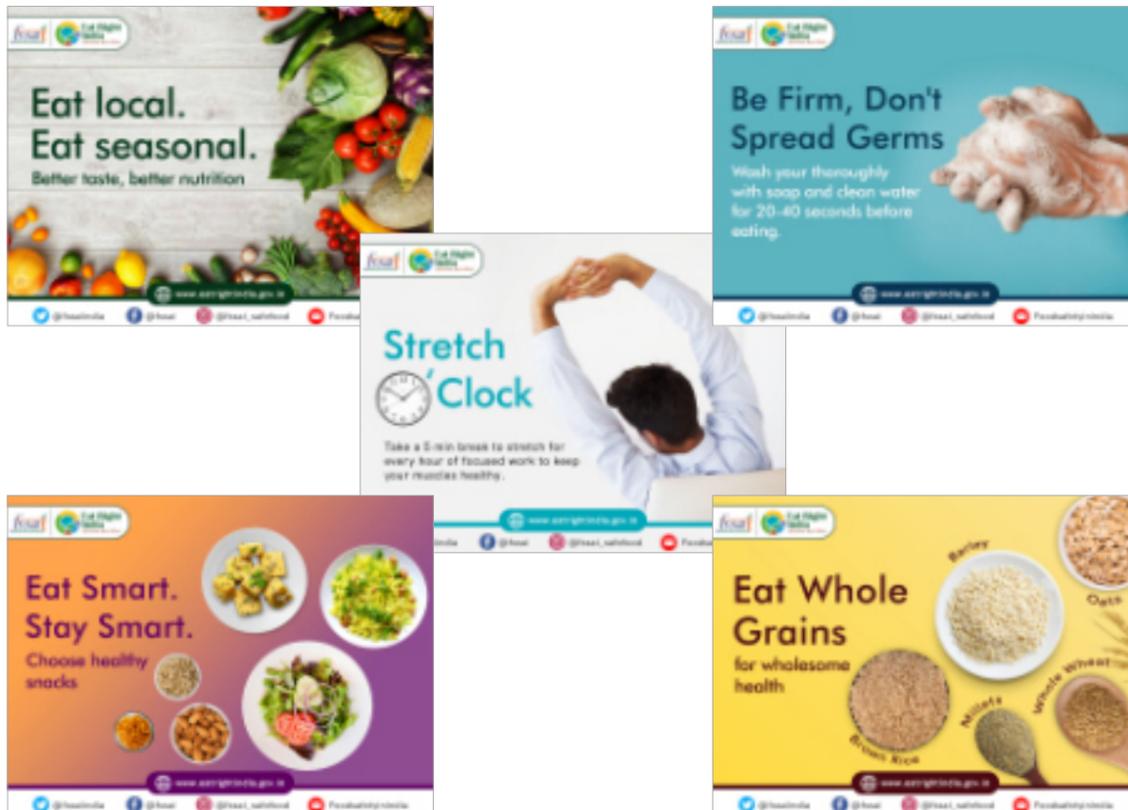
The DART Book for testing common food adulterants at home.

AUDIO-VISUAL MATERIALS

- The FSSAI Video Library has a series of videos on tests for common food adulterants, quick tips on eating right and many other informative videos at <https://fssai.gov.in/fssaivideolibrary>



- A series of Eat Right posters have been created for displaying in the campus for building awareness.



ELECTRONIC/ SOCIAL MEDIA

- The FSSAI website at www.fssai.gov.in contains all information related to food safety and nutrition.
- The Eat Right India website at <http://eatrightindia.gov.in/EatRightIndia/index> contains all information on Eating Right.
- The Food Smart Consumer Portal of FSSAI at <http://foodsmart.fssai.gov.in/> portal contains guidance notes for consumers, information on consumer rights as well as a grievance redressal mechanism.
- FSSAI's social media channels also provide a range of the latest information related to food and health.



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**TIPS FOR SAFE,
HEALTHY AND
SUSTAINABLE
DIETS**

FIVE Ps to Help Plan Your Diet

TIPS FOR SAFE, HEALTHY AND SUSTAINABLE DIETS

Eating healthy is important no matter where you are. Many of us eat at least one meal outside the home, whether we are at work, in college, traveling or going out. Here are some key 'rules of thumb' you can follow to eat healthy. It is important to eat a wholesome diet that includes food from all food groups in the right quantity.

P

PLENTY of fresh fruits, vegetables and water

PICK good fats

POWER your plate

PACE your meals

PAY attention



FIVE Ps to Help Plan Your Diet

1 Plenty of fresh fruits, vegetables and water

1

It is important to eat plenty of fruits, vegetables, salads and sprouts. They contain antioxidants, fibre, vitamins and minerals that are essential for our body's functions and immunity. Make sure you include a variety of them everyday and choose fresh, seasonal and local fruits and vegetables for maximum nutritional benefits. To ensure that you eat enough of these, dedicate one meal of the day to them. For example, one meal of the day could be vegetable soup or a bowl of mixed fruits or salad with fresh greens. Also, ensure you drink plenty of water every day. It is recommended to drink at least 6-8 glasses daily and more in the summer or when you are exercising because you lose water through sweat.

2 Power you plate

2

Pulses, legumes, milk, soya, nuts, seeds, dairy products, eggs, meat, poultry and fish (for those who eat meat) are rich in proteins. We need proteins for growth, for building muscles and strength. Aim to have at least two meals around proteins everyday. Pair them with whole grains and cereals. Grains and cereals are energy giving foods. Eat a variety of whole grains and cereals such as roti or whole wheat bread, brown rice, millets-bajra, jowar, ragi etc. These are rich in fibre, which is good for digestion. For example, you can pair pulses or dal with brown rice or paneer/cottage cheese with whole-wheat roti. This will ensure that you get complete proteins in a single meal.

3 Pick good fats

3

Fats are essential for the body and good fats must be taken in small quantities. Good fats that are found in nuts, seeds and vegetable oils should be consumed. Avoid fried foods, vanaspati, margarine, reused oils and highly processed foods that contain trans-fats such as cakes, biscuits, noodles, ready-to-eat snacks/meals and convenience foods. Avoid refined flour or maida.

4 Pace your meals

4

When you eat is as important as what you eat. Have a full breakfast in the morning. Do not skip meals as it could make you very hungry and cause you to overeat later on. Consume cereals like wheat, rice by evening, preferably before 7 pm and avoid eating late in the night. If you get late reaching home, it is advisable to carry extra tiffins. If you're taking nutrient supplements, eat them at breakfast time so you don't forget them and they are better absorbed.

5 Pay attention

5

Pay attention to what you eat, and how 'full' you feel. Chew slowly, and enjoy the food - the taste, flavour and texture. This helps in digestion and being tuned to when you 'feel full'. Do not eat while working or while engaged in any other task. Maintain a food diary to keep track of what and how much you are eating. Avoid eating when stressed, as you are likely to make poor choices or overeat. Enjoy your food. Emotional stress and denial may lead to a change in attitude towards foods and modifications in food habits that may be harmful.

** Pregnant and lactating women should take special care with their diets since their nutritional needs are greater. Consult a doctor and/or dietitian to ensure adequate, safe and nutritious food for yourself and your child.*

Reduce SALT SUGAR and FAT Aaj Se Thoda Kam

Reducing the intake of salt, sugar and fat in your daily diet helps reduce the risk of diseases such as diabetes, hypertension and heart disease.

1. Try to reduce salt intake to 5g/day, as recommended by the World Health Organization. This amounts to a teaspoon per day per person.
2. Limit the intake of added refined sugar to 4-5 teaspoons a day, per person.
3. Limit the intake of industrially produced saturated fats and avoid trans-fats altogether.



4 Tips to Reduce Salt, Sugar and Fat



AVOID

- Adding table salt to cooked food, curd, cut fruits and dough, rice while cooking and sugar to curd.
- Foods fried in used cooking oil, animal fats, vanaspati and margarine.



LIMIT

- Sugary drinks and sweet aerated drinks. Diet soda may seem like a health-conscious choice, however, one often ends up consuming more food and calories justified by the zero calories in their diet drink.
- Desserts such as cakes, pastries, mithai, etc.
- Fried and salty foods, namkeens, biscuits, sauces, pickles, jams, mayonnaise.



REPLACE

- Fresh coconut water, aam panna, chaanch/buttermilk, lemonade/nimbu paani instead of aerated, diet and sweetened beverages.
- Whole fruits instead of fruit juices to get more fibre.
- Fruit salad or dry fruits instead of desserts.
- Baked, boiled, roasted items instead of fried foods.
- Lemon and spices to flavour food instead of salt.



CONTROL

- The amount of salt, sugar and fat used by allotting a fixed quantity every month.
- The use of salt, sugar and fat by using small measuring spoons
- The amount of food consumed by taking small portion sizes, eating in smaller plates and using smaller serving and eating spoons.
- Daily intake through processed foods by checking nutrition labels for saturated fats, trans-fats, salt/sodium and (added) sugar content.



RESOURCES

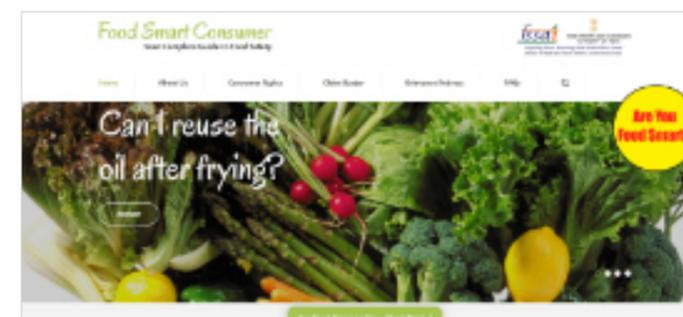
- For a complete guide to eating safe and nutritious food, refer to the Pink Book published by FSSAI at <http://www.fssai.gov.in/home/capacity-building/FSSAI-Books.html>



- For those who would like to consume organic food, FSSAI has launched a new initiative called 'Jaivik Bharat' to ensure genuineness of food labelled and sold as 'organic'. This builds on two established systems of certification, namely, National Programme for Organic Production (NPOP) and Participatory Guarantee System for India (PGS-India). The 'Jaivik Bharat' logo, a common identity for organic food, helps citizens identify authentic organic food. An 'Indian Organic Integrity Database' has been developed and is available through the Jaivik Bharat portal at www.jaivikbharat.fssai.gov.in.



- Visit FSSAI's Food Smart Consumer Portal at <http://foodsmart.fssai.gov.in/>. This portal contains guidance notes for consumers, information on consumer rights as well as a grievance redressal mechanism.





One should always begin the day with a healthy breakfast. It is equally important to eat healthy at lunch.



- As far as possible, choose local, seasonal and traditional foods. Traditional Indian thali with plenty of dal, whole grains and vegetables would be a healthy option.
- Include plenty of vegetables. Raw vegetables such as carrots, capsicum, tomato, cucumber or celery sticks can be packed/served along with dips such as hummus, Greek yoghurt, hung curd (curd drained of all its water and seasoned).
- Fresh seasonal fruits should be part of the lunch menu. Guavas, oranges, pears, apples, bananas, grapes, slices of papaya, melon, mango, pineapple, plums, or berries such as strawberries and raspberries make attractive and healthy tiffin box contents. Fresh fruits can also be added to flavour curds.
- Protein-rich foods such as nuts, tofu, cottage cheese (paneer), cheese or plain curd, pulses or dals should be included in a variety of forms.
- Choose whole grain cereals such as brown bread, whole grain bread/roti, brown rice and a variety of millets.
- Even pizzas, pastas, burgers, sandwiches and tacos can be made healthy with the following suggestions:
 - Use whole grain bread
 - Use lots of vegetables
 - Make non-fried patties from cottage cheese-paneer/chicken/channa/soya/rajma
 - Add lots of edible green leaves
 - Add slices of cottage cheese/paneer or tofu



TIPS FOR PACKING YOUR LUNCHBOX

01

Choose lunch boxes in simple shapes, which can be cleaned easily.

02

Use a non-reactive, non-corrosive container/ tiffin/lunch box. Choose stainless steel, glass or food grade plastics only.

03

Wash, clean, and dry lunch boxes before using them.

04

Do not reuse disposable plastic/aluminium containers.



05

Make sure that the lunch boxes have tight fitting lids (preferably with a locking system) so that the food does not spill.

06

Cool food items before packing them to prevent steam build-up in the box.

07

Do not consume packed food if it has been kept unrefrigerated (in the Danger Zone between 5-65 degrees C) for long hours or has an off odour/taste.

08

Never use newspaper or any other kind of ordinary paper bags to pack food.



09

Use butter paper or a clean cloth to pack food such as chapattis and paranthas.

10

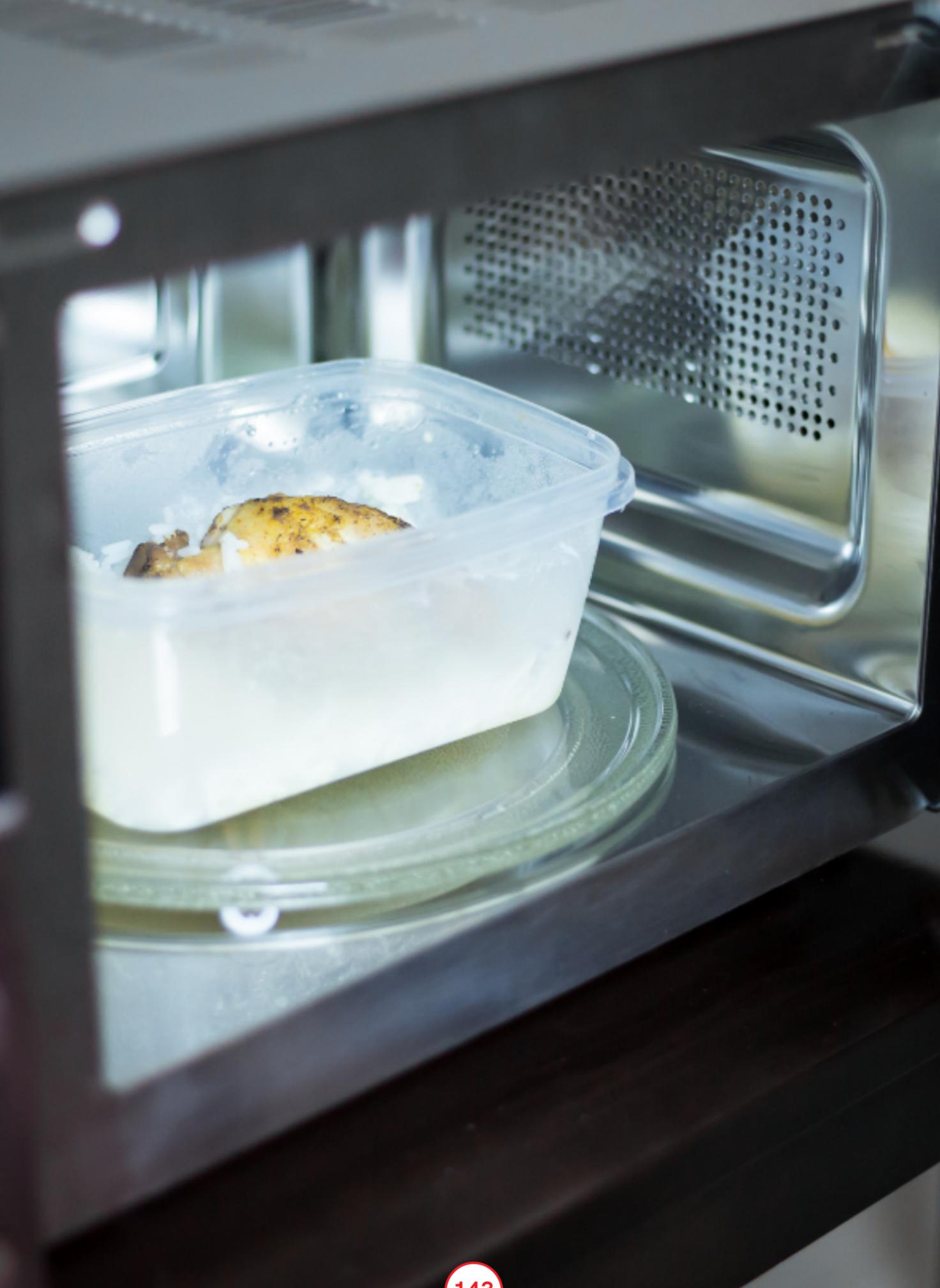
When using aluminium foil, cool food before packing it. Do not pack acidic food in aluminium foil.

11

Do not wash and reuse single service items like disposable plastic bottles, spoons, chop sticks etc. They are designed for one time use only, as they cannot be sanitized.

12

Use only food-grade plastics for packing and serving meals. Do not serve or pack food while it is hot in plastic containers.



13

Use only microwave-safe plastic lunch boxes for heating in the microwave.

14

Do not re-use plastic containers used for packaging food. Crush the container and recycle.

15

Discard plastic containers that are damaged, scratched or discoloured as the resin/monomers from which they are made may be toxic and can leach into foods.

16

Do not accept hot food/beverages packed in polythene bags.

Leaching of chemicals from plastics is a cause for concern as some chemicals are proven to be carcinogenic and toxic to humans and can cause hormonal disruptions. Look for the appropriate number on the recycle logo beneath the plastics containers/cookware before using them. Code numbers 1, 2, 4 and 5 are safe for use.



HEALTHY SNACKING TIPS

It is natural to feel hungry while at work, especially if you are working late. In that case, it is important to choose healthy snacks available in the canteen or outside or carry them from home.

Here are some healthy snack suggestions:



Fresh whole fruit/vegetables



Fruit smoothie (made with fresh fruits and no sugar).



A handful of all nuts/peanuts/gram/seeds (roasted & unsalted)



Puffed wheat/rice/lotus seeds



A cup of steamed sprouts with masala



Raw vegetables with curd dip



Homemade plain popcorn



Vegetable multigrain grilled/baked cutlet



Dhokla/Khandvi and other steamed snacks like idli



Boiled corn



Boiled egg



Grilled chicken/fish/paneer tikkas

HEALTHY BEVERAGES

Many people like to sip beverages like tea, coffee and juices while at work. However, these may not be healthy for us, especially when taken in large quantities. Here are some suggestions for healthy beverages-



Buttermilk



Lemonade
(with less or no sugar)



Coconut water



Plain water that may
be flavoured with
herbs such as mint,
basil, orange, lemon
etc. without sugar



Aam panna
(mango drink)



Jal jeera



Kokam sherbet



Amla sherbet



Herbal tea (without milk or sugar)



DEAL WITH THESE DAILY DISASTERS

We encounter certain common problems in our daily lives when it comes to food. Many of us feel very sleepy after a meal, particularly after lunch. We cannot start the day without coffee or tea and often rely on multiple cups to get us through the day. Here are some tips to deal with these 'daily disasters'.



Cope with 'food coma' after meals

Many people feel drowsy, lazy, mentally slow or fatigued after meals, especially lunch. This is known as 'food coma' or 'carb coma'. Some people may also experience extreme fullness, bloating, mental fogging, difficulty in concentrating and reduced attention span.

Food coma is triggered by big meals that contain a large amount of carbohydrates and fats, i.e. foods that are fried, refined rice, breads, cakes, cookies, sweets, desserts, sweetened beverages. These foods cause a rapid rise in blood sugar, followed by increased insulin levels to bring down these blood sugar levels. This causes the brain to feel drowsy and sleepy and fluctuations in blood sugar increase lethargy and tiredness. The large volume in the digestive tract also leads to sleepiness.

Therefore, to avoid food coma, eat light meals. Avoid foods high in fat, sugar and salt such as cakes, biscuits, fried foods, desserts, sweets, sweetened beverages, namkeens, refined foods such as white rice and white bread, butter, ghee and so on. Eat more foods that do not cause a spike in blood sugar levels such as non-starchy vegetables, lentils, legumes, whole grains, millets etc.



Stop the sugar and caffeine kick-start

Many people begin their day with tea or coffee and drink it throughout the day especially in office. It is the caffeine in these beverages that give the “kick” making them addictive and also harmful when consumed excessively.

The caffeine in coffee and tannic acid in tea, when taken in excess, can cause irritation to the stomach, hyperacidity, inflammation, gastritis and even increase the risk of stomach cancer. Coffee and tea are diuretics and can cause loss of water and essential minerals like magnesium. Drinking tea/coffee with meals can also prevent absorption of essential nutrients like iron, leading to diseases/conditions like anaemia. Excess green tea can also cause gastric irritation. Most people take tea or coffee with milk and sugar, often adding biscuits or other snacks with it, thus increasing the sugar and calorie intake.

Therefore, it is important to limit tea or coffee to maximum 2-3 cups a day and never take them with meals. Drinking plain hot water is a better alternative.



Fight Hunger Peaks during Devil's Hours

People feel most hungry during specific times during the day. For some it may be at lunch, for others, in the evening. Find out your peak hunger time based on your body clock.

Preferably, eat your biggest meal or the largest portion of your grain/cereal for the day or at least a healthy snack during this peak hunger time. It has been reported that peak hunger time for people at work is between 5-7pm, causing most people to overeat and/or eat unhealthy food. This results in a range of health problems-weight gain, gastritis, hyper-acidity, sleep disturbance, Irritable Bowel Syndrome (IBS), fatigue etc.

To avoid this problem, eat a part of your cereals/grains for the day or a healthy snack your supper at this time. You will feel satisfied and eat healthy as well. Later you may have a light dinner of soup, or salad or vegetables that is easy to digest. Wait for at least a few hours before you sleep after having dinner.



Tackle night shifts and long working hours

Many people these days work night shifts, including those working with headquarters of international companies that have different time zones of operations, medical professionals, those involved in emergency duties, night-security guards, call centres and so on. Others are increasingly spending longer hours in offices, often working late nights or have to travel often as a part of work.

Erratic night shifts and long working hours can disturb the body's natural rhythm. This may lead to weight gain, high blood pressure, hormonal changes, lowered immunity, digestive disturbances and many more uncomfortable conditions. Long working hours can also lead to stress and various related disorders.

To tackle health issues resulting from these erratic hours it is recommended to eat healthy meals during wakeful hours, eating the main cereal-based meal before 8pm, avoiding unhealthy snacks such as fried foods, sweets and sweetened beverages. It is equally important to exercise daily whenever possible, sleep adequately and get routine medical check-ups done.



WHEN EATING OUT

Some work places do not have a cafeteria, making it necessary for employees who do not carry their own lunch boxes to eat out.

Ensure that the canteen or restaurant-

- 01 Has FSSAI licence and registration.
- 02 Is clean, well-lit and well ventilated, with no musty smell and with a pleasing ambience.
- 03 Has well-groomed staff in clean uniforms/clothes and not coughing and sneezing.
- 04 Has a table/table cloth and menu card without stains, clean furniture and pest free interiors.
- 05 Serves food in clean crockery and cutlery without any cracks, chips or dents.





06

Waiters/servers handle glasses and plates correctly, and use serving tools with minimum handling with bare hands.

07

Serves freshly prepared and good quality food.

08

Serves hot foods, hot and cold foods, cold.

09

Serves purified/potable water in clean glasses.

10

Unless you are sure the place has good hygiene standards, avoid ordering the following -

- Cutlets, kebabs and koftas which need a lot of mincing and handling as they are likely to spoil faster.
- Raw salads, green chutney (in sandwiches and with snacks), and uncooked preparations.
- Russian salad, and sandwiches which contain both cooked and raw ingredients like chicken lettuce sandwiches unless refrigerated.
- Milk based preparations like milk shakes, kulfi etc.

If you need to purchase food from hawkers or food stalls, choose the following:

- 01 Hot beverages.
- 02 Snacks that are prepared fresh on order like dosa, utthappam, omelette.
- 03 Naturally protected foods like oranges/bananas, boiled eggs, roasted corn-on-the-cob or packaged dry snacks.
- 04 Avoid fried snacks, especially if the oil in the frying pan smokes or looks dark, gummy and frothy.
- 05 Avoid batter coated preparations or crumbed preparations since breadcrumbs are frequently reused.

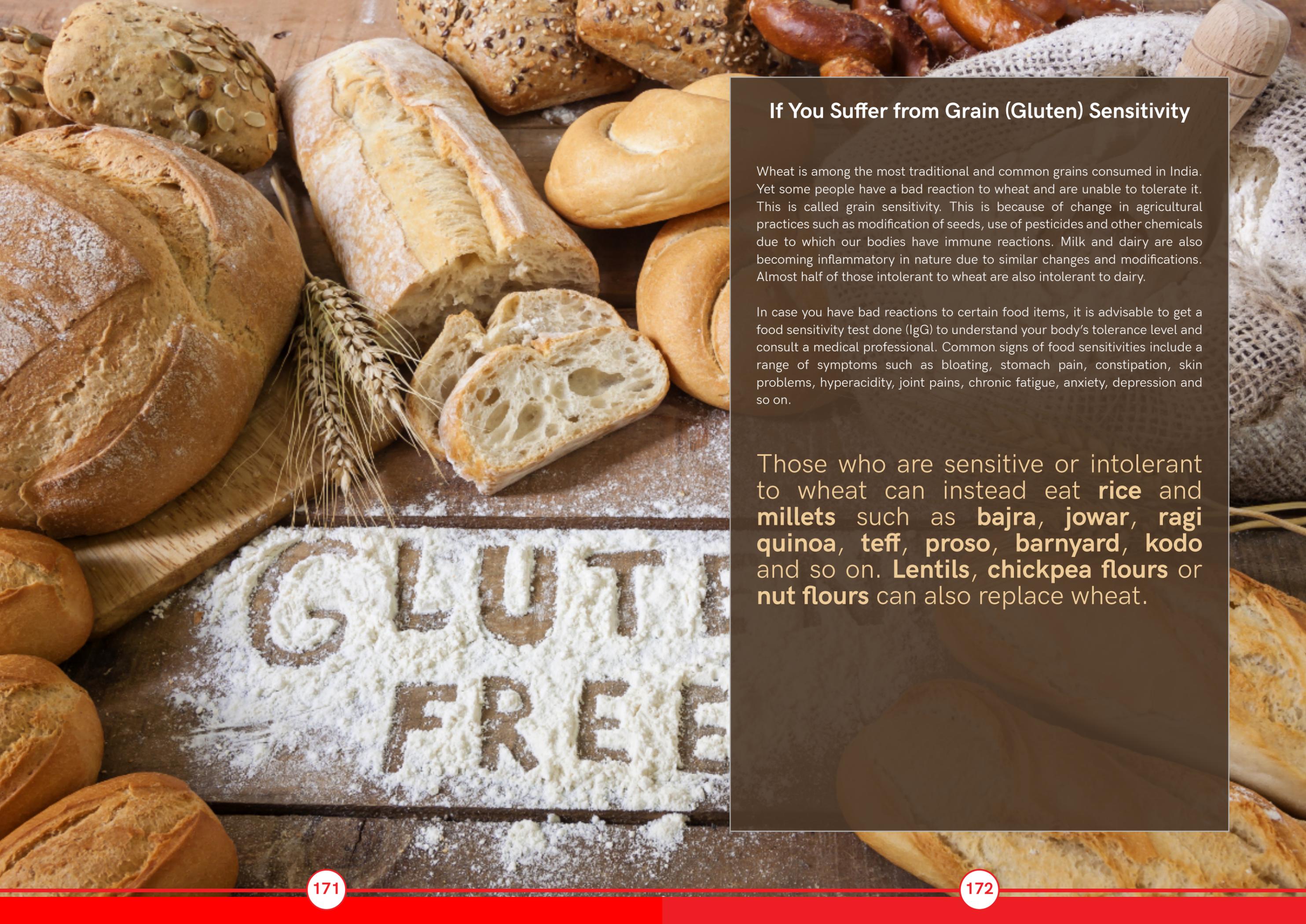


If you suffer from allergies, take the following precautions when eating out:

For food allergy sufferers, eating away from home can be the greatest challenge since you're not in control of the ingredients or the food preparation. Here are some precautions you can take:

- 01** Be "ingredient-savvy" when you eat out. Keep canteen or restaurant menus handy to review ahead. Avoid Asian dishes if you have nut allergies since they may contain nuts. Similarly avoid seafood, milk food or breaded food or baked food if you have fish allergy or protein allergies.
- 02** Explain your needs to your food server. Ask about the menu—ingredients and preparation—before you order. The same dish prepared in different restaurants may not have the same ingredients.
- 03** Avoid buffet style service at your office canteen or at a restaurant you visit since the same serving utensils may be used for different dishes. Similarly the same oil may be used to cook several dishes. Therefore, be careful about fried food.





If You Suffer from Grain (Gluten) Sensitivity

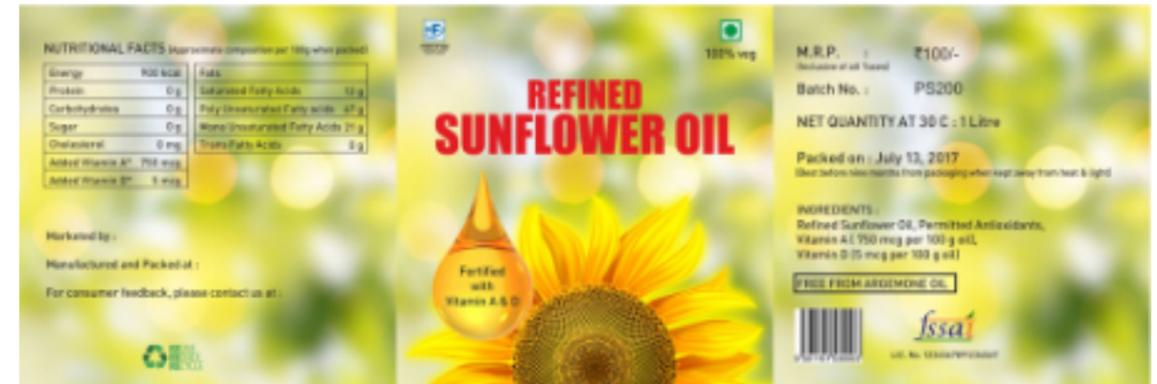
Wheat is among the most traditional and common grains consumed in India. Yet some people have a bad reaction to wheat and are unable to tolerate it. This is called grain sensitivity. This is because of change in agricultural practices such as modification of seeds, use of pesticides and other chemicals due to which our bodies have immune reactions. Milk and dairy are also becoming inflammatory in nature due to similar changes and modifications. Almost half of those intolerant to wheat are also intolerant to dairy.

In case you have bad reactions to certain food items, it is advisable to get a food sensitivity test done (IgG) to understand your body's tolerance level and consult a medical professional. Common signs of food sensitivities include a range of symptoms such as bloating, stomach pain, constipation, skin problems, hyperacidity, joint pains, chronic fatigue, anxiety, depression and so on.

Those who are sensitive or intolerant to wheat can instead eat **rice** and **millet**s such as **bajra**, **jowar**, **ragi**, **quinoa**, **teff**, **proso**, **barnyard**, **kodo** and so on. **Lentils**, **chickpea flours** or **nut flours** can also replace wheat.



DECODE FOOD LABELS

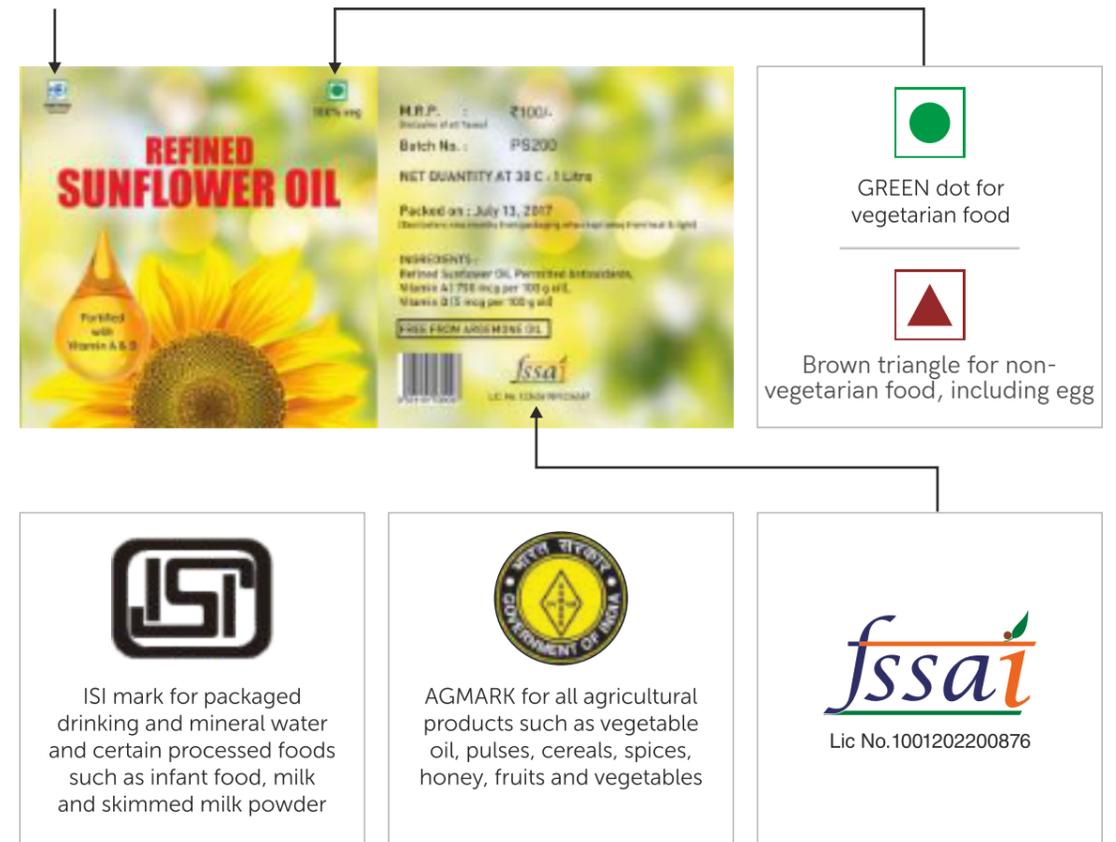


Reading and correctly interpreting the labels on food items is vitally important for making safe and healthy food choices.





LOOK FOR THESE LOGOS



Logo for fortified food



This is the logo for fortified foods. 'Fortified' food means essential nutrients such as vitamins and minerals have been added to the food. Eating fortified wheat flour, rice, milk, oil, and salt helps to meet your daily requirement for nutrients that help you grow, fight infections and stay strong and healthy. For more information, visit

www.ffrc.fssai.gov.in

CHECK THE FOLLOWING

Always check the following to check the freshness of food

The Date of Manufacture



Indicates when the food was manufactured and packaged. After this, check the Best Before period. This indicates the time period for which the food would be in perfect shape to consume. For e.g. The Date of Manufacture is 10th April 2020 and the Best Before period is 3 months or the packet says "to be consumed within 3 months of Date of Manufacture", then the food should be consumed

before 10th July 2020. After this date, the food may not be in perfect shape. It may lose taste, freshness, colour, aroma or nutrients. It does not necessarily mean that the food is no longer safe to eat.

The Best Before Date



Indicates the date up to which the food is in perfect shape to consume. E.g. If the Best Before date is 4th July 2020, then the food would be best consumed before that date. After that, it may lose taste, freshness, colour, aroma or nutrients. It does not necessarily mean that the food is no longer safe to eat.

The Date of Expiry or Use by Date



Indicates the date after which the food is unsafe to consume. If the date of expiry is 30th June 2020 and it has passed, then the food should not be consumed after 30th June 2020 as it may be unsafe to eat and cause health hazards.

Be sure to consume foods before the 'Best Before' date or before the 'Expiry Date' or 'Use by' has lapsed.

LIST OF INGREDIENTS and FOOD ADDITIVES:



Carefully check the list of ingredients.



Common allergy-causing ingredients include casein in milk, tree nuts including peanuts, eggs, fish, shellfish, soybean, and proteins in wheat. Avoid food products that include these ingredients if the consumer is sensitive to them. Consuming these even in small quantities can cause severe allergic reactions in some people.



Check the food additives for artificial/permitted flavouring and colours. Class I preservatives are preferred over class II.

INSTRUCTIONS FOR USE:

Read instructions for use if mentioned. Make sure you follow these instructions for best results.

STORAGE CONDITIONS:

Read instructions for storage such as where to keep the food product and for how long.

DECLARATIONS:

Read any claims and declarations such as "free from Argemone oil". For details about clarifications on claims, please refer to the Pink Book by FSSAI.



USE THESE NUTRITION FACTS
TO CHOOSE PROCESSED FOODS
WISELY



Nutrition		
Typical Values	per 100ml	per serv
Energy Value (Calories)	180 kJ 40 kcal	260 60
Protein	0.5 g	0.8
Carbohydrate (of which Sugars*)	9.0 g 9.0 g	13 1
Fat (of which	0.1 g	
Fibre		
Sodium		
Salt		
Vitamin C (% of the R.D.A.)		

ENERGY

- This is where you find the calories per serving, given in kcal, which stands for kilocalories.
- If the packet contains two servings and the calorie content is 100 calories per serving then you consume 200 calories if you eat the whole packet.
- Fat-free does not mean calorie-free. Lower fat items may have as many calories as full-fat items.

FATS & CHOLESTEROL

To help reduce your risk of heart disease, use the label to select foods that are lowest in saturated fats, trans fats, and cholesterol.

Nutrition Facts

Serving size: ..g

Calories: *

% Daily Value

Total fat	...g	...%
Saturated fat	...g	...%
Cholesterol	...g	...%
Sodium	...g	...%
Total carbohydrate	...g	...%
Dietary Fiber	...g	...%
Sugar	...g	...%
Protein	...g	...%

Vitamin A	...%	Vitamin C	...%
Calcium	...%	Iron	...%

*Percent Daily Values are based on 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

SODIUM

To help reduce your risk of high blood pressure, select foods that are lowest in sodium content.

FIBER

Check the amount of fibre. Fibre improves digestive functioning and overall health.

PROTEIN

Look for foods that are rich in proteins. Proteins are the building blocks of our body.

CARBOHYDRATES

- Check for sugars, especially added sugars.
- Check for other forms of sugars like maple syrup, golden syrup, malt syrup, fructose, corn sugar etc. as they are all sugar
- Limit sugars, especially added sugars in any form, to reduce your risk of obesity.

VITAMINS & MINERALS

Select foods that are rich in a variety of vitamins and minerals as they help us fight infections and keep us healthy.

SERVING SIZE AND NET WEIGHT

01

Check the serving size. It may be given as the number of servings per container/packet or the weight/volume in g/ml.

02

Check the net weight of the packet. This is the total amount of product contained in the packet.

03

The Nutrition Facts Label information is generally based on one serving/per 100g/100ml, but many packages may contain more than one serving or more than 100g or 100ml.

04

Look at how many servings/g/ml you are actually consuming. If there are two servings/200g/200ml in one packet and you eat the whole packet, you have consumed double the calories and nutrients mentioned in the Nutrition Facts.

Nutrition Facts	
1 servings per container	
Serving size	1 Bottle (59ml)
Amount Per Serving	
Calories	25
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 10mg	0%
Total Carbohydrate 7g	3%
Dietary Fiber 0g	0%

GUIDELINES FOR DAILY ALLOWANCE (GDA) or DAILY VALUE % (DV%)

Some foods display Guidelines for Daily Allowance or Daily Value%. This tells you what percentage of the daily requirements of particular nutrients is fulfilled by that food.

DV is based on a 2000-calorie diet. If a nutrient's DV is listed as 20% then it meets 20% of the total amount of that nutrient you need per day to function properly.

This is a helpful way to check if the food is high or low in a nutrient value. A DV of 5% or less means the food item is low in that nutrient and 20% or more means it is high in that nutrient.

Nutrition Facts	
4 servings per container	
Serving size	1
Amount Per Serving	
Calories	300
% Daily Value*	
Total Fat 18g	36%
Saturated Fat 6g	12%
Trans Fat 0g	
Sodium 5mg	0%
Total Carbohydrate 45g	9%
Dietary Fiber 8g	16%
Total Sugars 25g	50%
Includes 12g Added Sugars	24%
Protein 13g	26%

*Percent Daily Values are based on a diet of other people's misdeeds.

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used as a general nutrition guide.

PERSONAL HYGIENE TIPS



DOs



DONT's

1

Wash your hands before and after handling/eating food.

- Wet hands with water.
- Soap and scrub them for 20 seconds, palm to palm, between fingers, back of hands, base of thumbs, fingers and fingernails and wrists.
- Rinse under clean running water.
- Dry using a clean paper or cloth towel.
- Turn off the tap with the towel.



1

Do not touch currency notes or gadgets like the phone or computer while handling/serving/eating food. The germs from these frequently handled gadgets and currency notes can contaminate the food.



2

Do not scratch your head or your nose while handling/eating food, as body secretions and dirt can spoil the food.



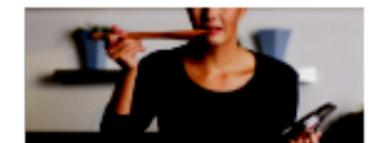
3

Do not wipe hands on your clothes. Use a clean cloth to wipe hands and wash this cloth regularly.



4

Do not taste food to check if it is contaminated. Even a small amount of spoiled food can cause health problems. When in doubt, throw it out.



2

Whenever you handle/eat any kind of food, ensure that any cuts, wounds or scratches on your hands, are covered with waterproof dressing to prevent contamination of the food.



3

Keep nails short and clean. Dirt from nails or harmful dyes from nail polish might contaminate the food.





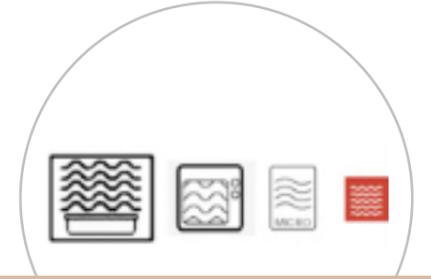
TIPS FOR HEATING FOOD IN THE MICROWAVE OVEN

Microwave ovens are used frequently in offices to reheat food and beverages. It is important to maintain the microwave oven in a clean state to avoid food from being contaminated. There is a danger of food being heated unevenly in a microwave oven.

Helpful TIPS



Use only food grade plastic, ceramic and glass containers that are labelled 'microwave safe' for cooking or heating food in the microwave oven.



Look for these LOGOs to check if a container is microwave safe .



Reheat chapatti and bread for a few seconds only to prevent it from becoming tough/leathery.



Do not put tea bags in the microwave oven as they have an aluminium staple.



Stir food a few times while it is being heated. Microwave ovens can heat food unevenly and can leave cold areas where microbes can survive and grow. Uneven heating can create 'hot spots' in the food and burn the tongue.



Materials to be used in the microwave oven



MATERIAL

RECOMMENDED

NOT RECOMMENDED



Glass and ceramic

If heat resistant

Glazed ceramics, dinnerware with silver or gold trim, utensils with metal trim or screws in lids or handles, ceramic mugs with glued handles



Paper

White microwave safe paper towels, paper plates labelled as microwave safe

Dyed/coloured/printed paper products, Newspaper and brown paper bags



Plastics

Microwave safe plastics. Slitting the top is recommended to prevent pressure build-up

Thin storage bags, plastic wrap, take away containers and one-time use plastic containers. Minimal contact between the plastic and food is recommended to avoid migration of plasticizers into the food



Metal Containers such as Aluminium or Aluminium foil

Never to be used



To test if a container is microwave safe, put water in the container and microwave for 15 seconds.

If the container is hot but the water is cool then that means it is NOT microwave safe.

SERVING FOOD

Many times we share our lunch with our colleagues or get food from outside and then serve it or we serve ourselves from the office canteen. It is important to use the right methods for serving food in the office.

Use Safe Serving Materials

DO USE

- ✓ Stainless steel utensils
- ✓ Tinned copper/brass utensils
- ✓ Food grade glass, ceramic, or porcelain
- ✓ Food grade plastic
- ✓ Safe disposable ware or single service items

DON'T USE

- ✗ Any kind of non-food grade plastic ware or scratched and damaged plastic ware
- ✗ Newspaper
- ✗ Non-tinned copper and brass utensils or aluminium utensils to serve anything sour



SAFE SERVING TIPS

- Wash hands with soap and clean water before serving food.
- Do not consume food that is not covered as it may be contaminated.
- Do not heat food in disposable ware.
- Eat freshly prepared food as far as possible.
- Make sure the food is served in a clean environment, using clean crockery and cutlery. Always make sure to clean between the prongs of a fork.
- Hot food should be served hot. Cooked food should be kept hot in an insulated, double-walled casserole/bain marie before serving.



SAFE SERVING TIPS

- Cold foods should be served chilled and stored in the refrigerator.
- If disposable/single service items are used for service, do not reuse them.
- Do not waste food. Take only as much as you can eat.
- Wash dishes/tiffin boxes well with soap and detergent after the meal is over.
- Do not serve food or put ice in a glass with bare hands. Use a serving spoon, tongs or wear disposable gloves while handling ready-to-eat food.



**SAFE
BREASTFEEDING
PRACTICES FOR
MOTHERS**

For the majority of working women, returning to work while still breastfeeding is a huge challenge. However, breastfeeding is very important for new-borns and infants. Adequate nutrition, especially during the first 1000 days of an infant's life is critical for growth and development.

Breast milk not only provides infants with essential nutrients but also builds immunity and protects them from infections. It enhances intelligence and provides long-term health benefits by protecting against diseases such as diabetes later in life.

Breastfeeding is beneficial to mothers as well. It helps them heal faster after delivery, reduces chances of postpartum depression, lowers risk of maternal cancers, helps them to get back into shape faster and acts as a natural contraceptive.

Mothers should breastfeed the baby exclusively for the first six months after the birth of the baby, after which they can introduce complementary foods in addition to breast milk. Infants are recommended to be breastfed until the age of two years, as per WHO guidelines.

Colostrum (thick-yellow liquid) secreted during first 3-4 days after childbirth is rich in antibodies and nutrient-dense, should not be discarded but fed to the child.

It is recommended not to use feeding bottles and infant foods as a substitute to breast milk. The Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, commonly known as the IMS Act curbs promotion of formula milk for babies until two years of age.

- Pregnant and lactating mothers should take adequate nutrients and take care with their diets. They should consume a diet rich in good quality protein and micronutrients especially iron, iodine and calcium.
- They should consult a doctor/dietitian to ensure that they eat healthy. They should also consult a doctor/dietitian for complementary foods that can be fed to infants after six months of age.
- If the workplace provides childcare facilities or crèches, mothers should breastfeed their infants.
- If not, then mothers can express breast milk, store it and feed the baby once they return home.

Safety instructions for expressing and storing the expressed breast milk:

- Wash your hands and breast with clean water before expressing or handling breast milk.
- Ensure that the breast pumps used to express the milk are clean. Clean the breast pumps after each use.
- Store the expressed milk in clean (sterilized) containers in refrigerators.
- Label the container with name, date and time (workplaces may make the labels available at the lactation rooms)
- Store the container in the refrigerator.
- Use ice packs or insulated bags/boxes to keep the milk container cold while travelling back home.



TIPS TO AVOID FOOD WASTE



Take only as much food as you need. Take smaller helpings more frequently instead of large servings that lead to food waste.



Use smaller spoons, plates and utensils to serve food.



Store leftover food safely and reuse or repurpose it for making compost for the office plants.



Share surplus food with those in need through the Indian Food Sharing Alliance.

Visit:

<https://sharefood.fssai.gov.in/>

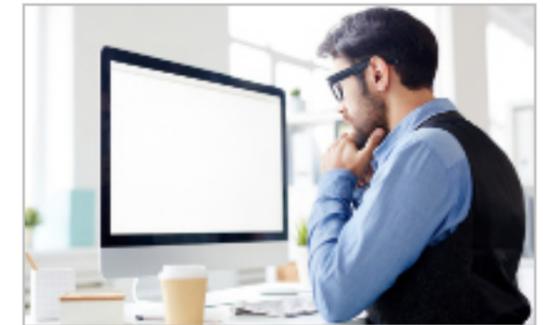


BE PHYSICALLY ACTIVE

It is important to take breaks and keep the body active, even while working at the desk. It is also important to maintain good posture while working. Here are some tips to keep in mind.



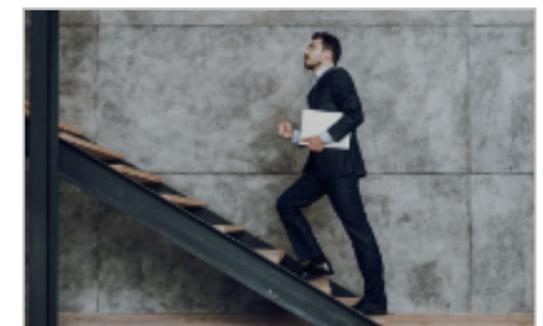
Make sure you sit on a comfortable chair in the office.



Your desk, computer, if you use one, should be kept at a level comfortable for the eye and shoulders.



Take frequent breaks (every 45 minutes) from work to stretch your body and relax your eyes.



Take the stairs instead of the lift or escalator.

BE PHYSICALLY ACTIVE



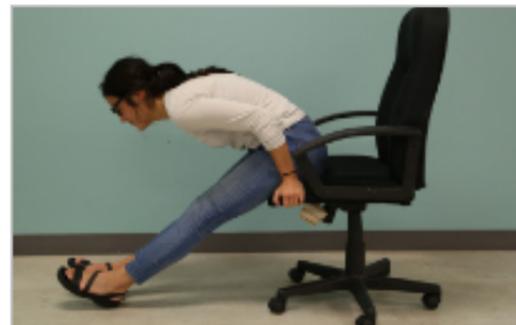
Walk or cycle to work instead of taking the car or bus, if possible.



Work while standing from time to time so that you're not sitting for long periods continuously.



If possible take a short walk around the office area during lunch-break or any other break to get some sunlight, fresh air and exercise.



Do some stretching exercises even when sitting at the desk.



Use the fitness facility at the workplace if there is one.

STRETCHING EXERCISES IN OFFICE





MANAGE STRESS AT WORK FOR BETTER HEALTH

Being stressed at work can cause you to overeat or eat unhealthy food. Moreover, stress can lead to a host of other health problems. Therefore, it is important to manage stress at work.

TIPS TO MANAGE STRESS

Being stressed at work can cause you to overeat or eat unhealthy food. Moreover, stress can lead to a host of other health problems. Therefore, it is important to manage stress at work.

01

TIME
MANAGEMENT

Learn time management skills to prevent stress from deadlines and last-minute rush.

02

SAY NO

Learn to say "no" politely to things that might add stress in your life.

03

EXERCISE
REGULARLY

Exercise regularly to help release stress and anxiety and to make you feel better.

04

RELAX

Use simple relaxation techniques such as deep breathing and stretching.



TIPS TO MANAGE STRESS

05

FIND
SUPPORT

Develop channels for venting emotions by sharing feelings with co-workers, or friends and family at home. Find a support group of colleagues if possible.

06

FIND
SOLUTIONS

Identify the source of stress. If possible, talk to your supervisor politely about any problems you may have and work out a solution so that the stressful situation can be mitigated.

07

LEAVE
STRESS AT
WORK

Try not to carry work stress home with you, otherwise it would affect your personal life. Try to solve work-related problems at the workplace.

08

ENOUGH
SLEEP

Ensure that you get enough sleep-at least 7-8 hours daily. Try to take breaks and rest on a daily and weekly basis.



TIPS TO MANAGE STRESS

09

TAKE A
VACATION

Take some time off from work if possible by going on vacations etc. so that you feel refreshed. Plan your vacations, as an ill-planned vacation can cause or even increase stress.

10

PURSUE
HOBBIES

Make time for hobbies and pursue your interests . Try to achieve a balance between work, rest and leisure.

11

SEEK
HELP

Be aware about mental illness and take it seriously. People tend to ignore mental health because they feel little immediate physical pain or challenge. However, if you notice any unusual changes in mood, appetite, sleeping pattern, unexplained weight loss, persistent negative feelings such as anxiety, anger, sadness, do not hesitate to consult a psychologist or a psychiatrist and get yourself treated.





HEALTHY RECIPES

HEALTHY RECIPES

This section provides some examples of healthy recipes for meals, snacks and drinks that people in campuses can use.

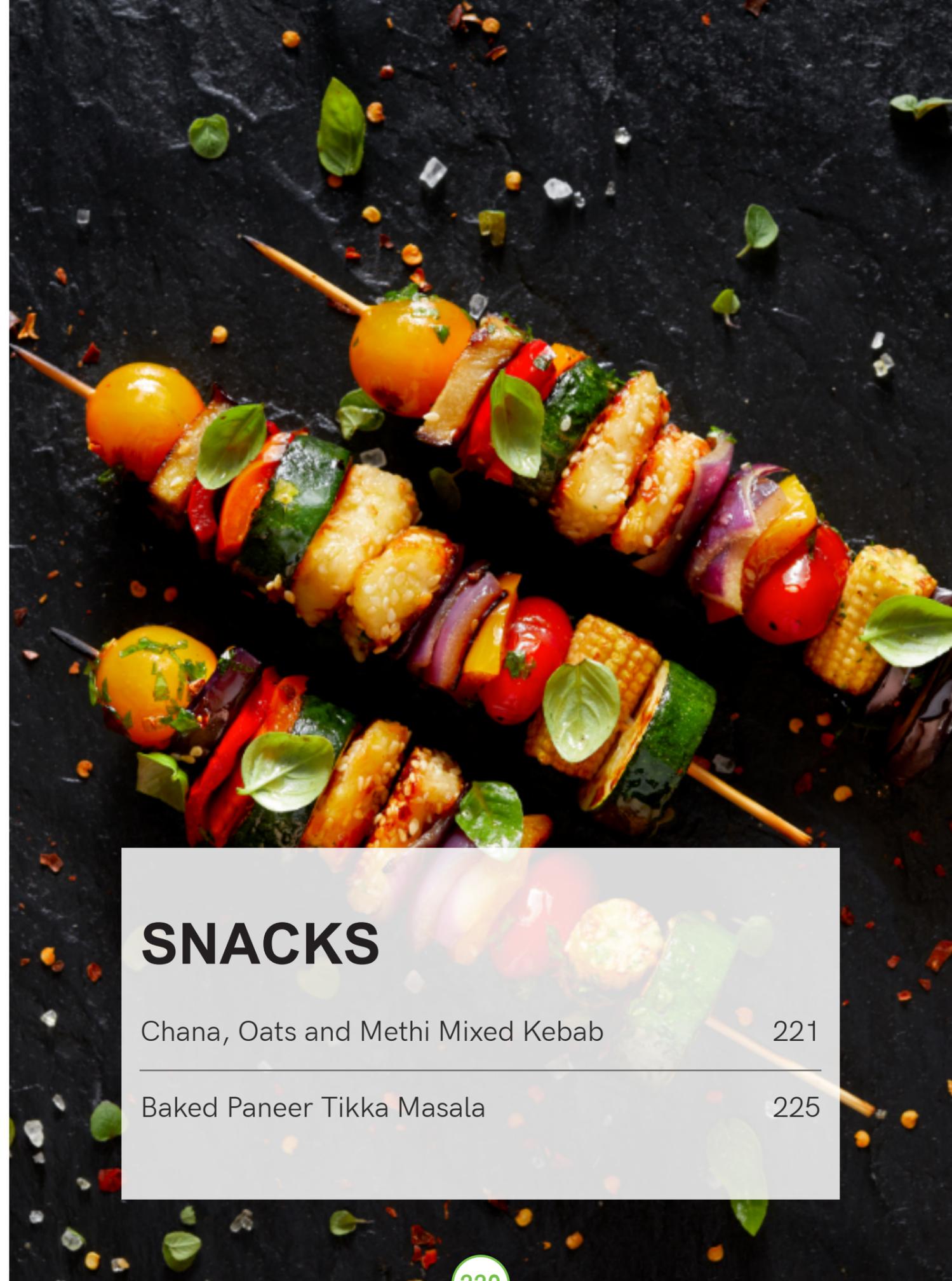
These recipes have been recommended by dietitians and nutritionists that are part of the NetProFaN (Network of Professionals in Food and Nutrition) initiative by FSSAI. Recipes from a variety of regions are included along with nutrition information. For more healthy recipes, visit www.eatrightindia.gov.in

SNACKS
220

BEVERAGES
230

MAIN COURSE
240

DESSERTS
262



SNACKS

Chana, Oats and Methi Mixed Kebab	221
Baked Paneer Tikka Masala	225



INGREDIENTS

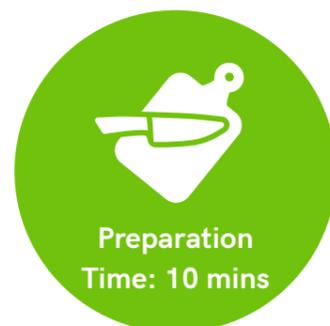
Black Gram	25gms
Oatmeal	25gms
Fenugreek leaves	25gms
Roasted Bengal Gram Flour	10gms
Fenugreek Seeds	5gms
Salt & Chat Masala to taste	1-2 pinch

HIGHLIGHTS

Black gram, fenugreek and oats are packed with nutrients such as protein, iron and fibre.

This mixed kebab not only offers a variety of flavours and textures in a single bite but also plenty of nutrients. An appetizing snack it is, indeed.

Chana, Oats And Methi Mixed Kebab



Recipe

Boil black gram and fenugreek seeds.

Soak oats in water for 5mins.

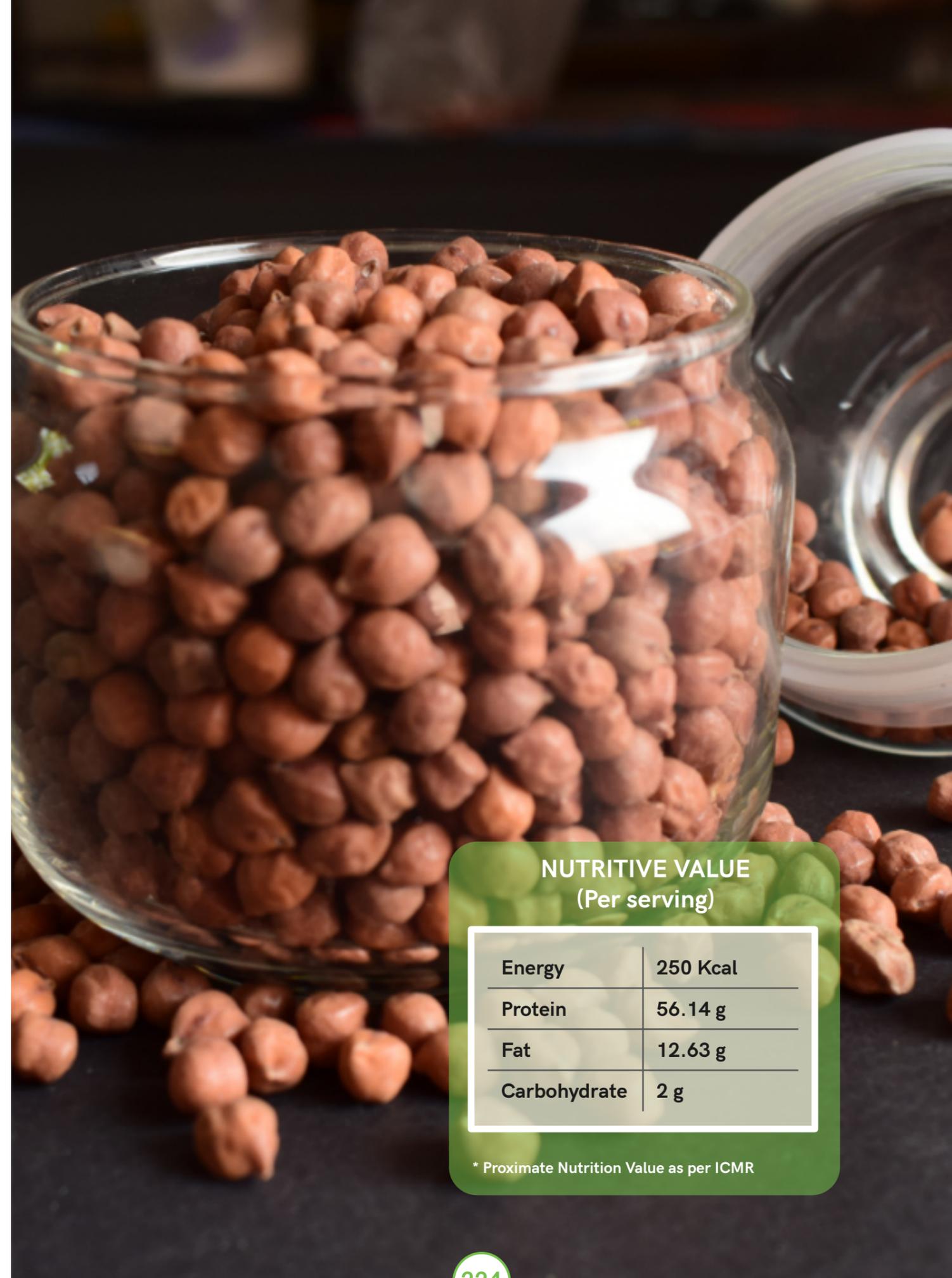
Chop the fenugreek leaves.

Crush and mash black gram and fenugreek seeds, add soaked oats and chopped fenugreek leaves in this, now add roasted black gram four to it. Mix well and add pinch of salt and chaat masala to taste.

Now prepare two round kebabs of this mixture.

Bake these kebabs for 4-5 mins in microwave till it become brown in colour.

Serve them as snacks with tea.



NUTRITIVE VALUE (Per serving)

Energy	250 Kcal
Protein	56.14 g
Fat	12.63 g
Carbohydrate	2 g

* Proximate Nutrition Value as per ICMR



INGREDIENTS

Paneer	200gms
Tomato	20gms
Bell Peppers (mixed)	45gms
Onion	20gms
Yellow Chilli Powder	5gms
Cumin Powder	5gms
Garam Masala Powder	6gms
Mango Powder	8gms
Ajwain	2gms
Mustard Oil	10gms
Hung Curd	100gms
Salt	As per taste

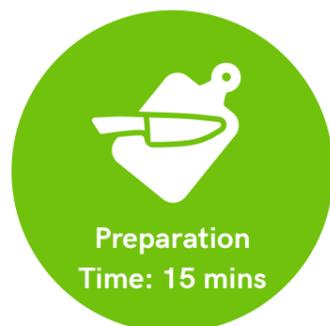
HIGHLIGHTS

Cottage cheese or paneer has been a staple for North Indians as the vegetarian population found it to be a great alternative to the chicken. Similar to other tikkas, paneer tikka has the nutrition & easy cooking aspect at its core. People in Delhi who were mostly migrants from neighbouring states had ample milk supplies & hence this vegetarian option evolved. Till today it is a healthy alternate to other milk products. A baked version of this authentic north Indian starter is better option as it reduces the fat consumption in the process of cooking.

Baked Paneer Tikka Masala



Serves: 4



Preparation
Time: 15 mins



Cooking
Time: 40 mins

Recipe

In a large mixing bowl take the hung curd & add all the dry ingredients, make a smooth batter ensuring no lumps are there.

Then cut the paneer into desired sizes and mix in the marination batter.

Rest it in a refrigerator for 1hour.

Prepare the oven preheat at 220° C.

Prepare the paneer skewers as desired.

Load the skewers into the oven on a baking tray or grid & bake as you load the skewers drop few ice cubes in the tray to get some flash steam in the oven.

Bake for 5 - 7 mins as per the paneer cut size. Once done serve with some lemon drizzled, mint dip & onion salad.



NUTRITIVE VALUE (Per serving)

Calories	210 Kcal
Total Fat	8.8 g (11%)
Saturated Fat	2.4 g (12%)
Cholesterol	11 g (4%)
Sodium	2392 mg (104%)
Carbohydrate	14 g (5%)
Dietary Fiber	2 g (7%)
Total Sugars	6.5 g
Protein	18.1 g
Calcium	200 mg (15%)
Iron	3 mg (16%)
Potassium	371 mg (8%)

The % Daily Value (DV) tells you how much a nutrient in a food serving contributes to a daily diet. 2000 calorie a day is used for general nutrition advice.

A glass of lemonade with ice, lemon slices, and mint leaves. The glass is filled with a clear liquid, ice cubes, several slices of lemons, and fresh mint leaves. A wooden skewer with a loop is stuck into the drink. The background is dark, making the glass and its contents stand out.

BEVERAGES

Spicy Buttermilk 231

Sattu and Pudina Sharbat 235



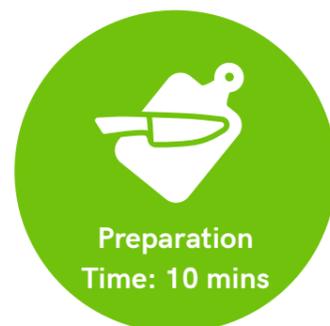
INGREDIENTS

Curd	50 ml
Water	100 ml
Pepper	A pinch
Coriander Leaves	Few
Curry Leaves	Few
Ginger	1/8 tsp
Asafoetida	A pinch
Oil	1 tsp (5 ml)
Mustard Seeds	A few
Cumin Seeds	A few
Salt	As per taste

HIGHLIGHTS

Buttermilk is a very common beverage in Karnataka that aids in digestion and is also considered as a refreshing drink during summers. Buttermilk is also a probiotic.

Spicy Buttermilk



Recipe

Mix in curd (plain yoghurt), water and salt.

Mix it well and prepare buttermilk.

Prepare tempering using oil, mustard seeds, cumin seeds, asafoetida, pepper, chopped ginger, curry leaves and coriander leaves.

Add this to the buttermilk and mix well.



NUTRITIVE VALUE (Per serving)

Calories	81.69 Kcal
Carbohydrate	2.47 g
Fat	7.24 g
Protein	0.75 g

Source: IFCT (2017)

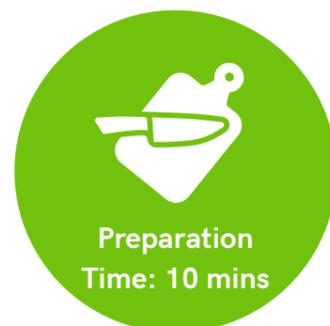
Sattu aur Pudina Sharbat

INGREDIENTS

Roasted Sattu Powder	60 gm (Roasted Gram powder)
Water	600 ml
Salt	As per taste
Black Salt	As per taste
Ginger Juice	10 ml
Lemon Juice	15 ml
Chaat Masala	3 gm
Roasted Cumin Powder	3 gm
Green Chillies deseeded and chopped	3
Chopped Coriander Leaves	10 gm
Chopped Mint Leaves	10 gm

HIGHLIGHTS

Rich in iron, manganese, magnesium and low in sodium, sattu provides instant energy and also works as a cooling agent that further keeps the internal organs at ease. The low-glycemic index of sattu is good for diabetic people. According to health experts, consuming sattu on a daily basis keeps blood sugar levels under control and also regulates blood pressure.



Recipe

Crush the ginger (using mortar & pestle or in a grinder) and squeeze the juice out of it.

Place the roasted sattu powder in a bowl. Add 300 ml of water and whisk well. Now add the remaining 300 ml of water and whisk again to combine.

Add the salt, black salt, ginger juice, lemon juice, chat masala, roasted cumin powder, deseeded green chilies, chopped coriander leaves and chopped mint leaves.

Whisk well and refrigerate.

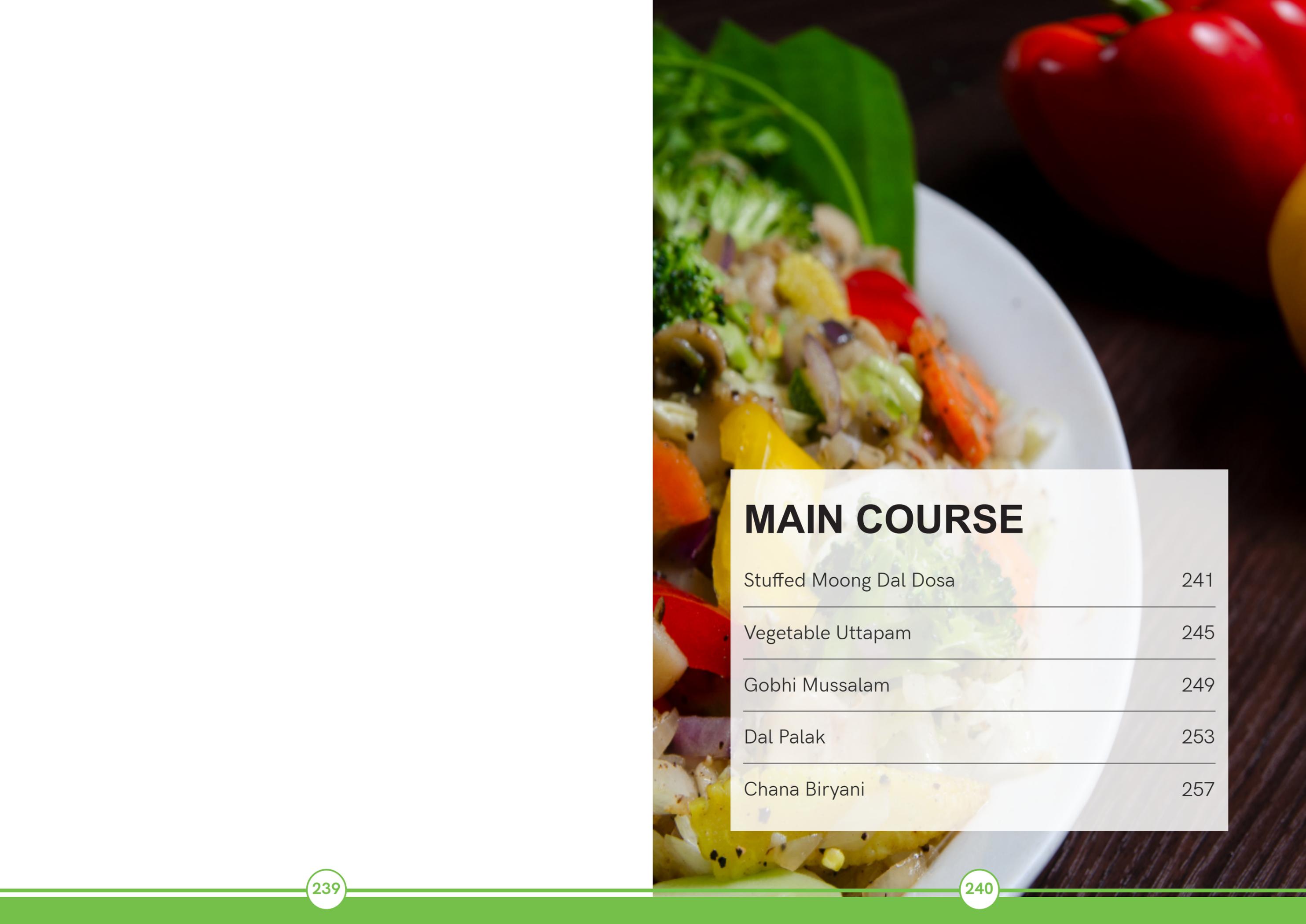
Stir well and serve chilled.



NUTRITIVE VALUE (Per serving)

Calories	260 Kcal
Carbohydrate	67 g
Fat	0.3 g
Protein	0.5 g

Source: IFCT (2017)



MAIN COURSE

Stuffed Moong Dal Dosa	241
Vegetable Uttapam	245
Gobhi Mussalam	249
Dal Palak	253
Chana Biryani	257



INGREDIENTS

Soaked Moong Dal	1.5 cup
Chopped Green Chilli	2-3
Ginger Garlic Paste	Little
Oil	1 Tablespoon
Chopped Carrot, Onions, Corn, Grated Paneer	2-3
Salt	As per taste

HIGHLIGHTS

This moong dal dosa makes the body feel full after eating and improves your metabolism to control weight. It is rich in high quality proteins as well as potassium and iron that help lower blood pressure

Moong dal has a low glycemic index, therefore, it helps bring down the insulin, blood glucose and fat levels in the body in turn this helps keeps blood sugar levels under control and diabetes in check.

Stuffed Moong Dal Dosa



Recipe

To prepare the stuffing, mix 10 gm crumbled paneer, 10gm of carrots, 10gm of capsicum, 10gm of corn salt to taste, a pinch of red chilli powder, 1/2 tsp grated ginger and handful of finely chopped coriander. Keep it aside.

To make cheela, grind 1 cup-soaked dal with salt to taste, 1" piece of ginger and a small green chilli. Add ½ tbsp water, if required. Grind it to a coarse paste.

Add a pinch of red chilli powder and a handful of chopped coriander.

Mix everything well.

Check the consistency and add water.

Heat a nonstick pan and add a few drops of oil.

Pour a ladle full of moong dal batter and spread it into a thin pancake.

Cook till the bottom leaves the pan. You can also flip and cook it from the other side, although it gets cooked without flipping too.

Fill in a spoonful of stuffing.

Roll the cheela and serve with green chutney or ketchup.



NUTRITIVE VALUE (Per serving)

Energy	148 Kcal
Carbohydrate	13 g
Fat	7 g
Protein	10 g

Source: IFCT (2017)



Vegetable Uttapam

INGREDIENTS

Idli Batter	1 cup
Onion (Finely chopped)	1 small
Capsicum (Finely chopped)	1/4 cup
Tomato (Finely chopped)	1/2 cup
Oil	Shallo frying
Salt	As per taste

HIGHLIGHTS

The outer layer of Uttapam is crispy whereas the inner layers are spongy and soft. Low in fat but high in flavours, it is a very easy and quick homemade breakfast option which is ideal for people who prefer a low fat diet. A variety of vegetables can be added to it or oats can be used in the batter to make it healthier.



Recipe

Heat cast iron tawa over medium flame add few drops of oil on hot tawa and spread it using a halved potato/onion.

Pour one laddle of batter and spread it in clock-wise or anti-clockwise.

Sprinkle 1-2 tablespoons of finely chopped onion, capsicum, after few seconds sprinkle chopped tomato and green chilly over it and gently press the veggies with a spatula.

Drizzle 1 teaspoon of oil around the edges and cook for approximately 2-3 minutes until bottom surface turns light golden brown.. Cover it with a lid to speed up the cooking process.

Flip it gently and cook another side for a minute or until the bottom surface looks cooked.



NUTRITIVE VALUE (Per serving)

Energy	130 Kcal
Carbohydrate	28 g
Fat	10 g
Protein	21 g

Source: IFCT (2017)



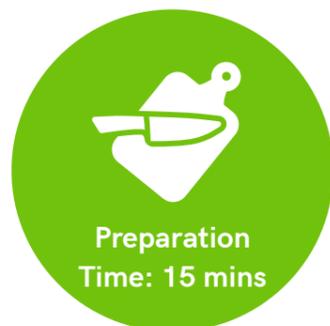
INGREDIENTS

Whole Cauliflower	1/2 kg
Oil	10 ml
Cloves	1-2
Bay Leaves	Few
Turmeric	1 Teaspoon
Red Chilli Powder	1 Teaspoon
Cardamom	1 Teaspoon
Onion	250 g
Garlic	4 cloves
Ginger	1 inch
Salt	As per taste
Tomatoes	300 g
Curd	200 g
Potato	200 g

HIGHLIGHTS

This preparation belongs to the northern region of the country and has a Mughlai touch. Weight watchers can cook it in oven to reduce oil amount.

Gobhi Mussalam



Recipe

Wash the cauliflower on the base as well as the top but don't cut it.

Heat oil in a deep pan preferably, non-stick.

Coarsely crush the cardamom along with cloves and add it to oil along with the bay leaves.

When they become brown, add sliced onions and garlic and saute till golden brown.

Add turmeric, red chili powder, garam masala, salt, grated ginger and tomatoes and saute for a minute.

Place the cauliflower in the pan, spread the masala evenly over the cauliflower with a spatula and place a tightly covered lid over it.

Lower the flame. Don't add water; there will be enough water for the cauliflower to be cooked if the lid is tight enough.

Stir it occasionally and gently till the cauliflower is cooked (approx 20-30 min).

Serve it hot after garnishing with chopped coriander.

Goes well with roti or paratha.



NUTRITIVE VALUE (Per serving)

Calories	142 Kcal
Carbohydrate	18.5 g
Fat	4.75 g
Protein	5 g

Source: IFCT (2017)

Dal Palak

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HIGHLIGHTS

This is a recipe, which has the goodness of two- Dal and Palak. Moong Dal with Spinach is a very nutritious and healthy main course dish that will provide you the dose of nutrients required day to day . It not only makes the dal interesting, but also rich in fibre and protein. Dal Palak requires minimal ingredients but is delicious creamy and flavourful.

INGREDIENTS

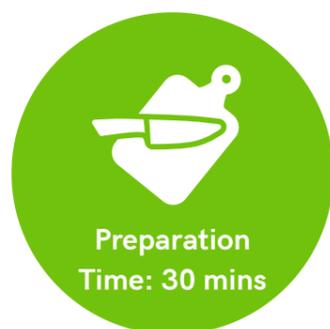
Whole Moong Dal	100 g (1 cup)
Spinach (After chopping)	300-350 g
Onion Medium Size (Slice them long)	2
Oil / Ghee	1 Tablespoon
Ginger (Finely chopped)	1 inch
Asafoetida	1 pinch
Green Chilli	2
Cumin Seeds	1/2 teaspoon
Turmeric Powder	1/4 teaspoon
Red Chilli Powder	1/4 teaspoon
Salt	As per taste
water	3 cups

For Garnish- Dried whole red chillies, ginger julienne, corriander leaves

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Serves: 4



Preparation
Time: 30 mins



Cooking
Time: 35 mins

Recipe

Soak the moong dal for half an hour in water after washing it thoroughly with water. Chop the spinach after washing it thoroughly.

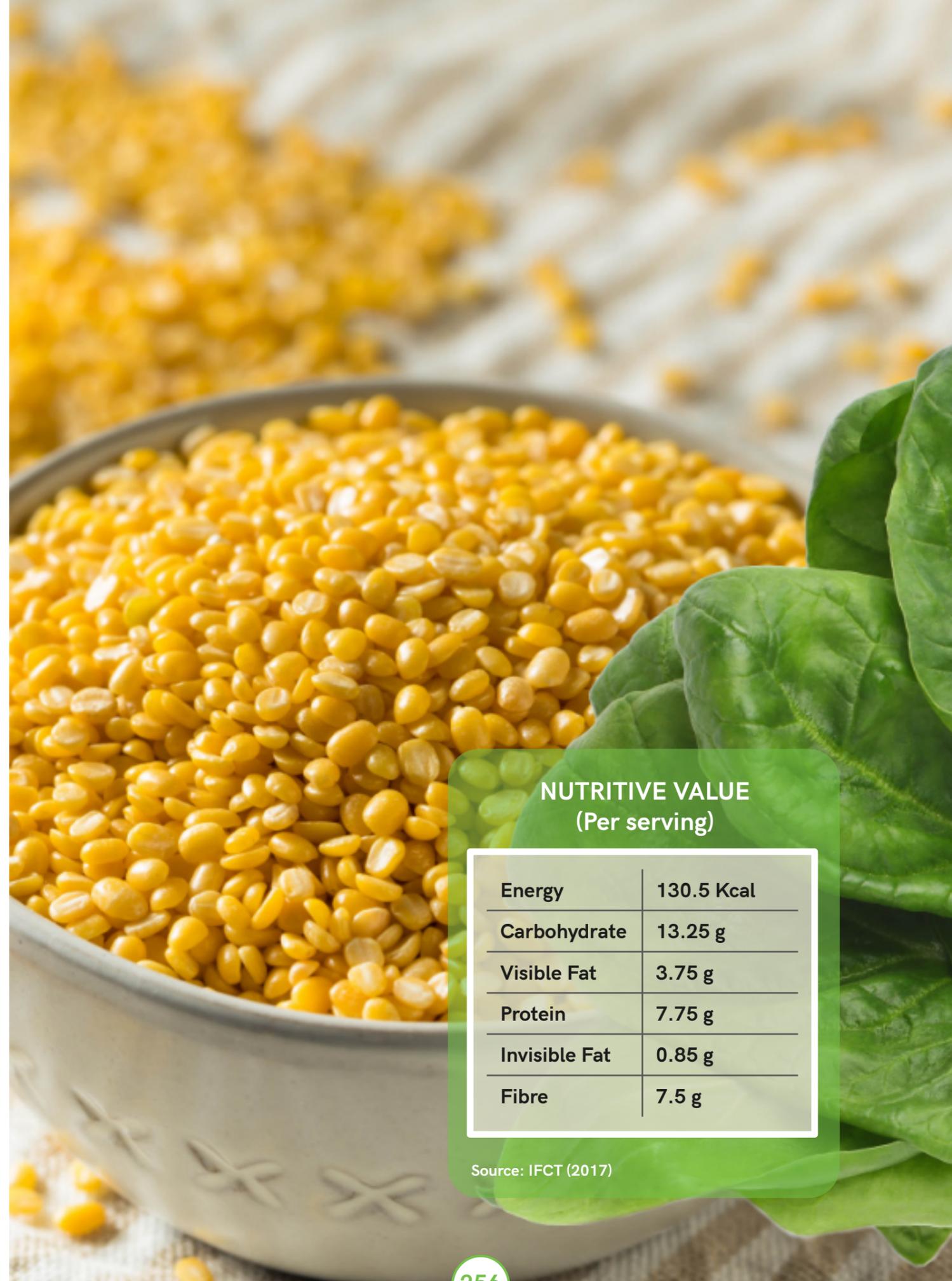
Add Moong dal and Palak with 1 ½ - 2 Cups of water in a pressure cooker and close the lid and cook the dal for whistle, reduce the flame and continue to cook for 15 minutes on low flame. Turn off the flame when done and let the cooker cool on its own.

Open the pressure cooker and coarsely mash the dal and spinach mix, with a spatula or hand beater. This will get the creamier taste. Do not over do the mashing. Consistency of the mix should resemble like a semisolid food / khichri (Neither thin nor thick) Do not over do.

Now for the tadka, In a kadai, add ½ tablespoon ghee, add asafoetida (hing) along with cumin seeds into it. Let the cumin splutter and then add finely chopped ginger, cook it for one minute now add sliced onion, cook them till they turn pink, add turmeric powder, red chilli powder, salt to taste.

After the onion masala is cooked, add the dal and spinach mix in the kadai, if you feel the consistency is thick, add a little boiled water. Cook for 4-5 minutes on low flame, till masala mixes well. Turn off the flame and Dal Palak is ready to serve.

Pour the dal in serving bowl, Take a tadka pan add remaining ½ tablespoon ghee, add dried whole chillies, 2 pinch degi mirch, let it cook for few seconds, splash it on the serving bowl which has dal Palak. Garnish with Ginger Julienne, Coriander Leaves and serve.



NUTRITIVE VALUE (Per serving)

Energy	130.5 Kcal
Carbohydrate	13.25 g
Visible Fat	3.75 g
Protein	7.75 g
Invisible Fat	0.85 g
Fibre	7.5 g

Source: IFCT (2017)



INGREDIENTS

Basmati Rice	200 g
Chickpeas White	100 g
Onion (big)	100 g
Green Chillies	10 g
Ginger	5 g
Garlic Cloves	5 g
Tomatoes	100 g crushed
Oil (Gingelly black seeds)	30 ml
Cinnamon	2 g
Cloves	2 g
Bay Leaf	2 g
Fennel Seeds	2 g
Turmeric Powder	2 g
Red Chilli Powder	5 g
Garam Masala Powder	5 g
Mint Leaves	100 g
Coriander Leaves	100 g
Lemon Juice	5 ml
Salt	As per taste

HIGHLIGHTS

Adding chickpeas to this biryani dish makes it rich in proteins and a complete meal. Chickpeas are also rich in fibre, which is good for digestion as well as iron and calcium that are good for bone health. To make it healthier, add vegetables and nuts to biryani and eat it with curd. It will not only look good but also taste good.

Chana Biryani



Recipe

Wash and soak the chickpeas overnight or for at least 6 hours.

Wash and soak the Basmathi rice. Let the rice soak till other things are done.

Coarsely grind the following ingredients in a blender or mixie- onion, green chilies, ginger, garlic, mint leaves, cinnamon, cloves, bay leaf and fennel seeds.

Heat the oil in a pressure cooker. Add the above ground paste. Sauté for 5 minutes.

Add the turmeric powder, red chilli powder and garam masala powder and fry for a minute.

Add the tomatoes and cook till the masala comes together.

Add 350ml water and bring it to a boil. To make the biriyani more rich add 150ml of coconut milk and 200ml water instead of full water.

Add the soaked chickpeas, salt as needed, lemon juice and cilantro. Finally drain the soaking rice and add to the boiling water.

Close the cooker, put the pressure and reduce the flame. Cook on low heat for 15 minutes and switch off.

Once the pressure is released, fluff the rice with a fork.

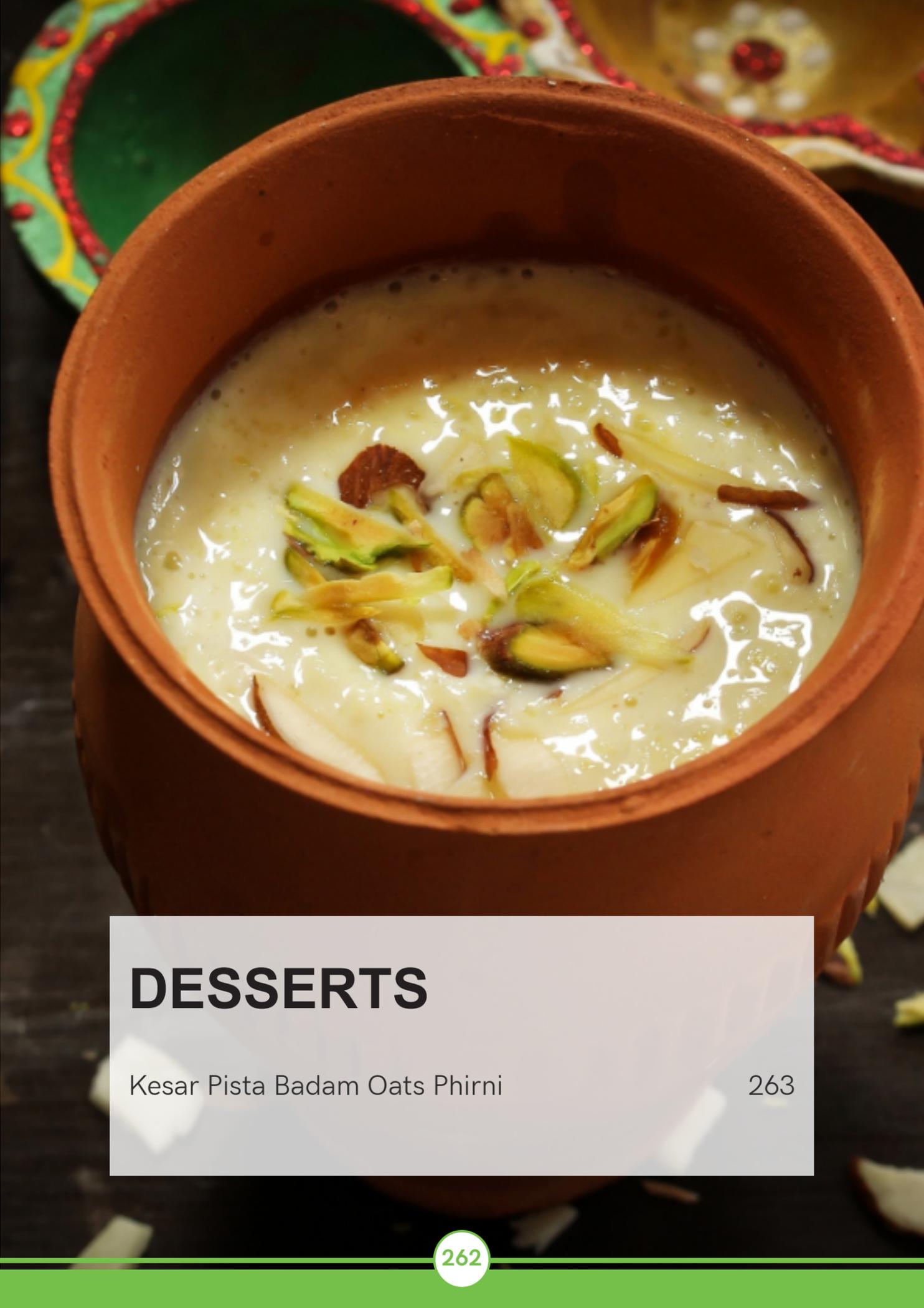
Channa biriyani is ready to serve.



NUTRITIVE VALUE (Per serving)

Energy	1254.553 Kcal
Carbohydrate	217.395 g
Fat	21.627 g
Protein	51.704 g

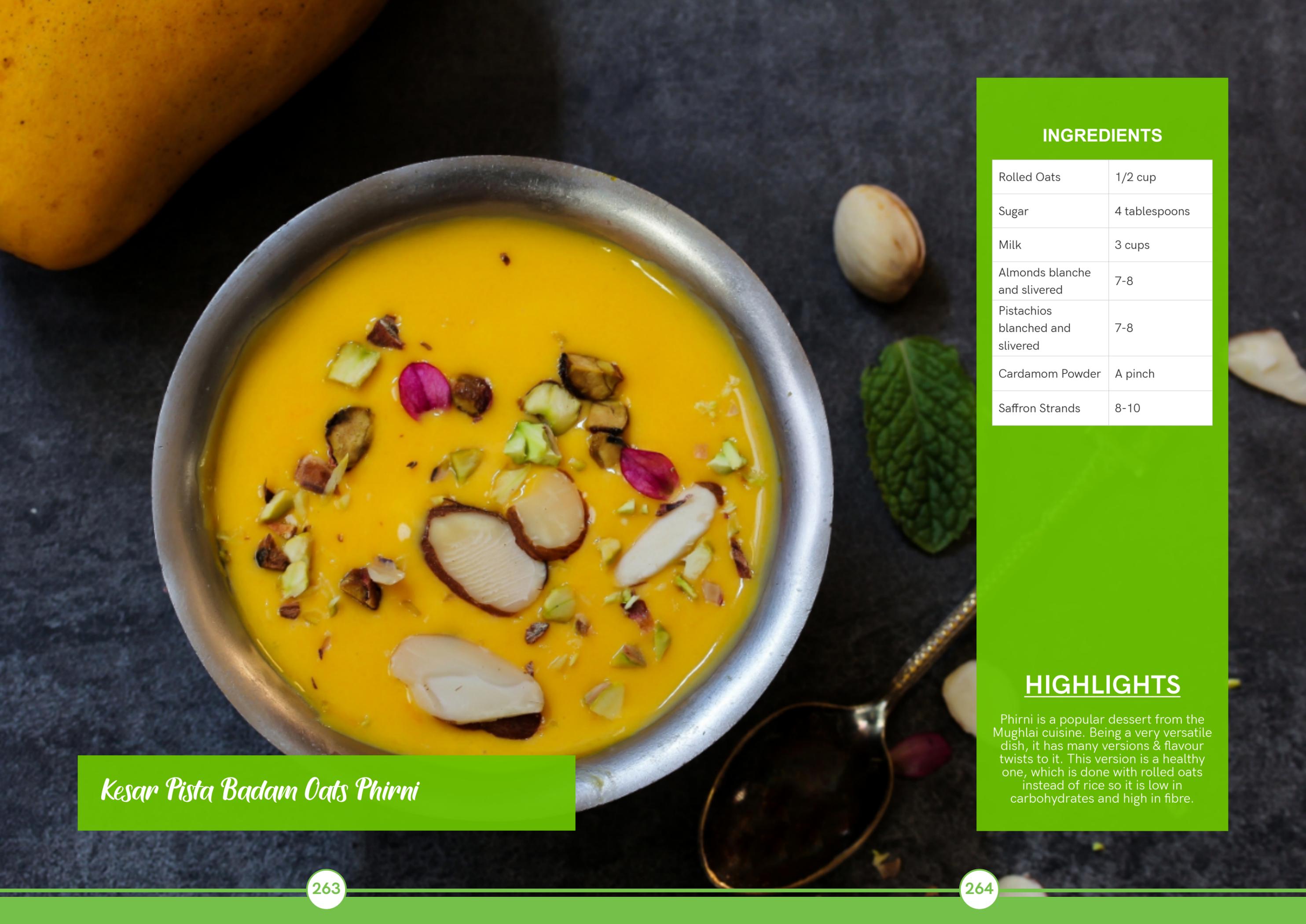
Source: IFCT (2017)

A close-up photograph of a traditional Indian dessert, Kesari, served in a rustic terracotta bowl. The dessert is a thick, creamy, yellowish-orange mixture, likely made from semolina and milk, topped with sliced almonds and pistachios. The bowl is set against a dark background with some decorative elements visible in the upper left corner.

DESSERTS

Kesar Pista Badam Oats Phirni

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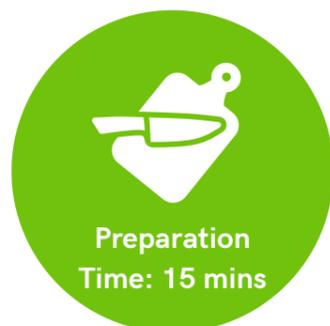
INGREDIENTS

Rolled Oats	1/2 cup
Sugar	4 tablespoons
Milk	3 cups
Almonds blanche and slivered	7-8
Pistachios blanched and slivered	7-8
Cardamom Powder	A pinch
Saffron Strands	8-10

HIGHLIGHTS

Phirni is a popular dessert from the Mughlai cuisine. Being a very versatile dish, it has many versions & flavour twists to it. This version is a healthy one, which is done with rolled oats instead of rice so it is low in carbohydrates and high in fibre.

Kesar Pista Badam Oats Phirni



Recipe

Bring milk to the boil in a medium sized non-stick pan.

Meanwhile, grind the oats to a fine powder. Once the milk starts to boil, add the oats powder & keep stirring continuously so that there are no lumps.

Once the oats are cooked and the mixture becomes thick, add sugar and stir till it is completely dissolved. Mix the saffron in warm water & add to the mixture.

Add cardamom powder & half of the almonds and pistachios & remove from the heat.

Transfer to individual serving bowls.

Garnish with the remaining almonds and pistachios & refrigerate for 2-3 hours.

Serve chilled.



NUTRITIVE VALUE (Per serving)

Calories	161 Kcal
Total Fat	2.7 g
Saturated Fat	0.3 g
Carbohydrate	25.8 g
Dietary Fiber	1.2 g
Protein	7.7 g
Iron	1 mg

Source: IFCT (2017)



CHECKLIST

INSPECTION CHECKLIST FOR EAT RIGHT CAMPUS

Date		Auditor	
Name of Campus		Auditing Agency	
Campus Representative		Address of Campus	

RATING: _____/5 STARS

Scoring Matrix:



Five Star (85% and above)
Exemplary/ Excellent



Four Star (75% and above)
Full Compliance/ Very Good



Three Star (65% and above)
Satisfactory Compliance/ Good



Two Star (55% and above)
Partial Compliance/ Needs improvement



Below 55%
Non Compliance/ Urgent improvement

TOTAL EAT RIGHT CAMPUS SCORE: _____/100

PART	PARAMETER	SCORE OBTAINED	MAXIMUM SCORE
PART A *	SAFE FOOD		40
PART B	HEALTHY FOOD		25
PART C	SUSTAINABLE FOOD		10
PART D	BUILDING AWARENESS		25
TOTAL			100

*DETAILED SCORING SYSTEM FOR PART A

	TYPE OF FOOD SERVICE ESTABLISHMENT	POINTS AS PER CHECKLIST or HYGIENE RATING	MAXIMUM POINTS
MANDATORY (AS APPLICABLE)			
1	(Each) in-house Pantry and Food Area		30
2	(Each) In House Canteen (With Food Preparation)		114
3	License/Registration of each outsourced Catering Establishments Serving Campus and Vendors (tuck shops/retail outlets)		20
VOLUNTARY HYGIENE RATING (AS APPLICABLE)			
4	(Each) outsourced Catering Establishment Serving Campus		100
5	(Each) Vendor (Tuck Shop/ Retail outlet)		100
	TOTAL MARKS OBTAINED		

PART A SCORE: 40 x (Total Marks Obtained)/(Maximum Marks)

Definitions:

In-house pantry and food area:

1. **Pantry:** A room/area where beverages, food, and sometimes dishes, cleaning chemicals, linens, or provisions are stored. It may serve in an ancillary capacity to the main kitchen.
2. **Food Area:** A room with seating arrangements for people to eat or drink. It may range from a full-fledged canteen seating area to a small set-up indoors or outdoors.

In-house Canteen:

Food service establishment in the campus in which food and beverages are prepared, served and eaten within the campus premises. It may or may not include a seating arrangement for customers.

Outsourced Catering Establishment:

A food service establishment that prepares food/beverages outside the campus premises and delivers prepared/cooked food and beverages to the campus.

Vendors:

This includes tuck shops, retail outlets and other food selling outlets or food vendors within the campus that sell cooked/packed/fresh/raw food and beverage items in the campus. They may be owned by the campus authorities or any other private entity or may function independently.

Marking System:

Scoring System for PART A: All food service establishments in the campus are to be evaluated. Depending on the type of food service establishment, the corresponding checklist/scoring method is to be used.

Mandatory

- For pantry area or food area, if present, the first checklist is to be used. The score for this section should be given out of 30.
- For in-house canteens, if present, the second checklist is to be used. The score for this section should be given out of 114.

- If there are multiple pantry areas/food areas/in-house canteens, the score for each of them is to be entered.
- If present, all outsourced catering establishment services in the campus as well as tuck shops, vendors etc., must be mandatorily licensed/registered with FSSAI. A single point should be given for each licensed/registered caterer and/or vendor, as applicable and the total should then be multiplied by 20 to get the score for this section out of 20.

Voluntary

- A campus may voluntarily do Hygiene Rating Certification of its outsourced catering establishment or vendors.
- The hygiene rating score for each of them is to be entered.

Total Score: The total score of all of the above, as applicable, is to be taken and then multiplied by 40 and entered as the final score for Part A.

The Scoring System for PART B, C and D will be as per the respective checklists provided. The actual marks obtained in the checklist will be entered as the final score.



MARKING SCHEME FOR INDIVIDUAL QUESTIONS

The marking scheme for questions ALL CHECKLISTS is as follows: The Auditor will inspect the facility of the campus according to the requirements as laid down in the inspection checklist and accordingly will mark the finding as compliance (C), non-compliance (NC), partial compliance (PC) & Not applicable/Not observed (NA). Separate requirements have been developed for the food businesses within the campus. All the requirements are allotted 2 marks and there are few requirements, which are allotted 4 marks. The 4-marks questions are critical to food safety and shall be essentially met by the campus. Each finding will be awarded marks as mentioned below:

S. No.	Finding	Marks to be awarded for 1 mark requirements	Marks to be awarded for 2 mark requirements	Marks to be awarded for 4 mark requirements	Marks to be awarded for 5 mark requirements
1	Compliance (C)	1	2	4	5
2	Non-compliance (NC)	0	0	0	0
3	Partial compliance (PC)	0.5	1 to 1.5	1.5 to 3	1-4
4	Not applicable/ Not observed (NA)	1	2	4	5

Compliance – Yes, the requirement is fully implemented. There is adherence with the requirement with no major or minor conformance is observed.

Non-compliance - No, the requirement is not documented and implemented. There is non-adherence with the requirement with major non - conformance is observed.

Partial Compliance – Requirement is partially implemented. A non-conformity that (based on the judgement and experience of the auditor) is not likely to result in the failure of the food safety or reduce its ability to assure controlled processes or products. It may be either a failure in some part to a specified requirement or a single observed lapse.

Not Applicable/Not observed (NA) – Requirements are not applicable to campus & hence cannot be observed.

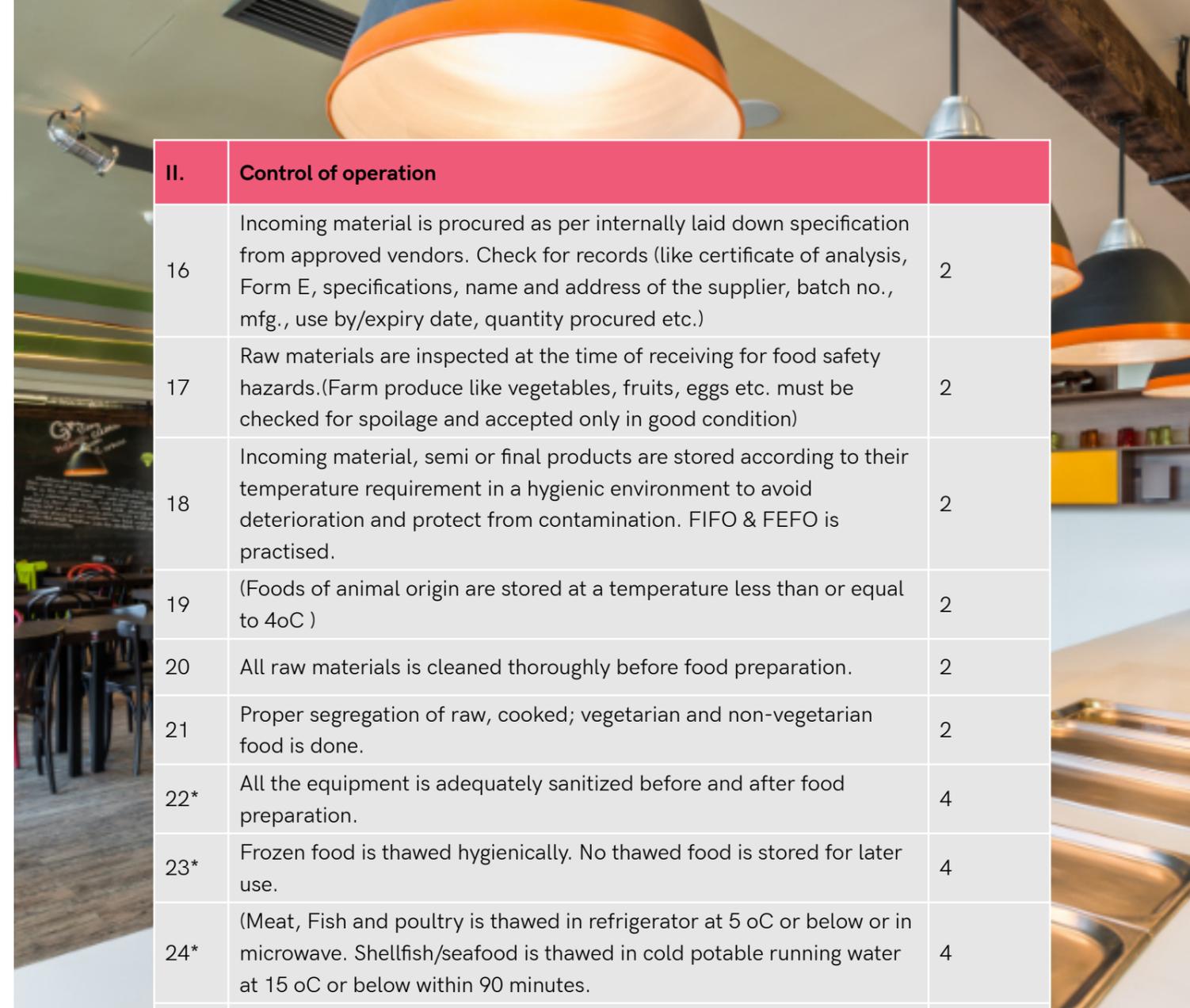
PART A

CHECKLIST FOR IN-HOUSE PANTRY OR FOOD AREA

S. N.	BASIC HYGIENE CHECKLIST-PANTRY/FOOD AREA	SCORING
1	Walls, ceilings & doors are free from flaking paint or plaster etc.	2
2	Equipment are made of non-toxic material and free from rust.	
3	Potable/drinking water used wherever it comes in contact with food or used in food preparation.	2
4	Proper ventilation and lighting is provided within the premises.	2
5	Separate storage facility for raw material, processed food, packing material etc.	2
6	All food stored properly in clean, closed containers away from moisture and sunlight. All perishable foods stored in the refrigerator at the right temperature. FIFO to be followed.	2
7	Adequate facilities provided for hand washing, pot washing, toilets etc. which should be segregated from food handling area to prevent cross contamination.	2
8	Cleaning of equipment, food premises and surrounding areas, drains is done properly and regularly. Timely pest control. No signs of pest activity in premises.	2
9	Food material and water is tested in FSSAI notified lab periodically. Records maintained.	2
10	Raw material is procured from licensed/registered suppliers only and check date of expiry before use.	2
11	Cutlery, crockery and utensils that come in contact with food are kept clean and made of ceramic/stainless steel and other food grade material only. No newspapers, plastic bags. Only microwave-safe material is used for heating in the microwave.	2
12	Garbage should be removed timely and should not accumulate. Garbage bins should be covered and kept clean.	2
13	Segregation of vegetarian and non-vegetarian food. Segregation of raw and cooked food.	2
14	No person suffering from a disease or illness or with open wounds or burns is involved in food handling.	2
15	Food handlers maintain personal hygiene such as clean hands, short clean nails, appropriate clothes, hair neatly tied/combed and use gloves/apron as required.	2
	TOTAL SCORE	30

CHECKLIST FOR IN-HOUSE CANTEEN (WITH FOOD PREPARATION IN PREMISES)

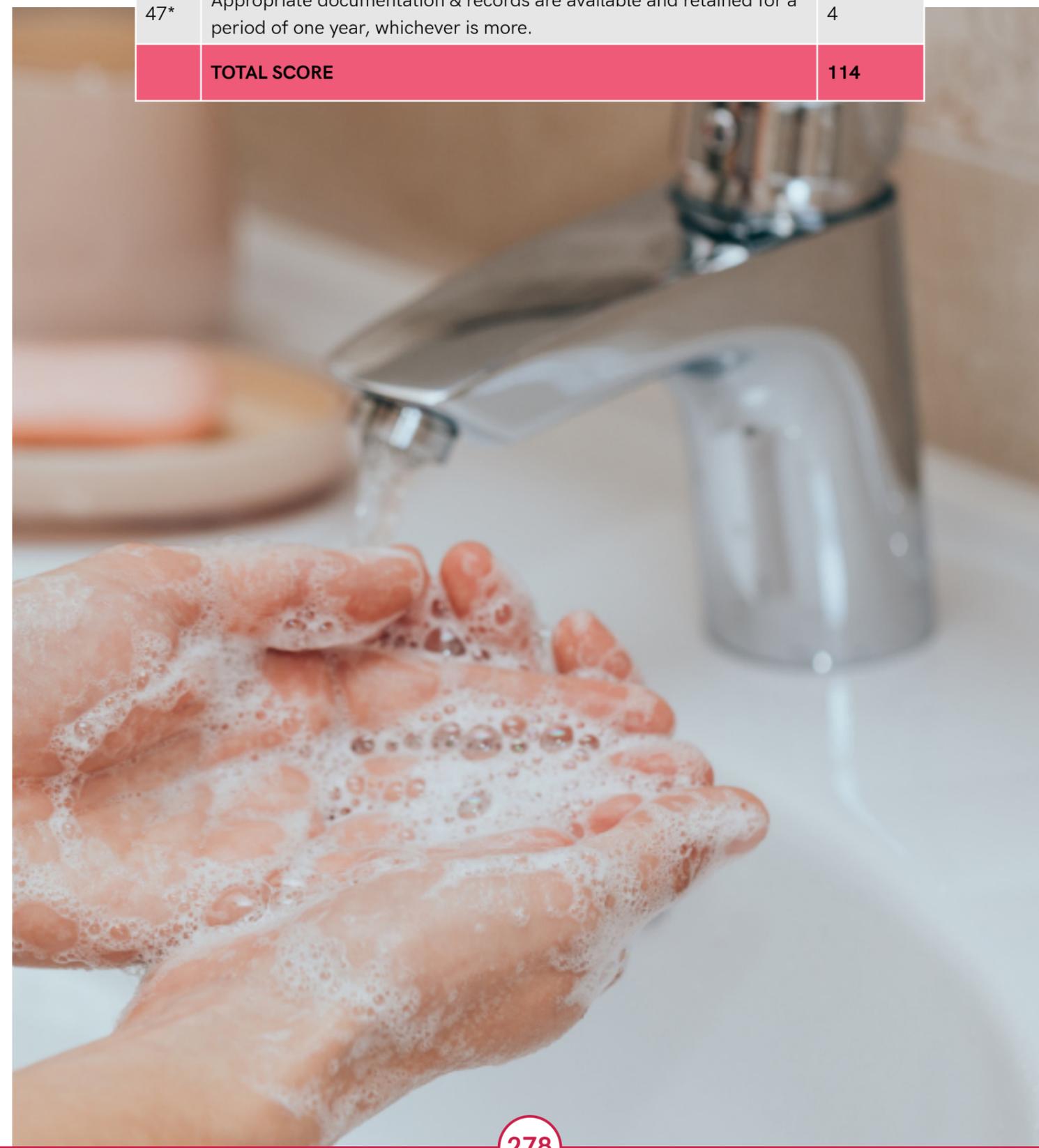
S. N.	AUDIT QUESTIONS	SCORING
	DAILY SAFE & HYGIENIC FOOD CHECKLIST	
1	Food establishment has an updated FSSAI license and is displayed at a prominent location.	2
I.	Design & facilities	
2	The design of food premises provides adequate working space; permit maintenance & cleaning to prevent the entry of dirt, dust & pests.	2
3	The internal structure & fittings are made of non-toxic and impermeable material.	2
4	Walls, ceilings & doors are free from flaking paint or plaster, condensation & shedding particles.	2
5	Floors are non-absorbent, non-slippery & sloped appropriately.	2
6	Windows are kept closed & fitted with insect proof screen when opening to external environment.	2
7	Doors are smooth and non-absorbent. Suitable precautions have been taken prevent entry of pests.	2
8*	Potable water (meeting standards of IS:10500 & tested semi-annually with records maintained thereof) is used as product ingredient or in contact with food or food contact surface.	4
9	Equipment and containers are made of non-toxic, impervious, non-corrosive material which is easy to clean & disinfect.	2
10	Adequate facilities for heating, cooling, refrigeration and freezing food & facilitate monitoring of temperature.	2
11	Premise has sufficient lighting. Lighting fixtures are protected to prevent contamination on breakage.	2
12	Adequate ventilation is provided within the premises.	2
13	An adequate storage facility for food, packaging materials, chemicals, personnel items etc. is available.	2
14	Personnel hygiene facilities are available including adequate number of hand washing facilities, toilets, and change rooms for employees.	2
15	Food material is tested either through internal laboratory or through an accredited lab. Check for records.	2



II.	Control of operation	
16	Incoming material is procured as per internally laid down specification from approved vendors. Check for records (like certificate of analysis, Form E, specifications, name and address of the supplier, batch no., mfg., use by/expiry date, quantity procured etc.)	2
17	Raw materials are inspected at the time of receiving for food safety hazards.(Farm produce like vegetables, fruits, eggs etc. must be checked for spoilage and accepted only in good condition)	2
18	Incoming material, semi or final products are stored according to their temperature requirement in a hygienic environment to avoid deterioration and protect from contamination. FIFO & FEFO is practised.	2
19	(Foods of animal origin are stored at a temperature less than or equal to 4oC)	2
20	All raw materials is cleaned thoroughly before food preparation.	2
21	Proper segregation of raw, cooked; vegetarian and non-vegetarian food is done.	2
22*	All the equipment is adequately sanitized before and after food preparation.	4
23*	Frozen food is thawed hygienically. No thawed food is stored for later use.	4
24*	(Meat, Fish and poultry is thawed in refrigerator at 5 oC or below or in microwave. Shellfish/seafood is thawed in cold potable running water at 15 oC or below within 90 minutes.	4
25	Vegetarian items are cooked to a minimum of 60oC for 10 minutes or 65oC for 2 minutes core food temperature. Non vegetarian items are cooked for a minimum of 65oC for 10 minutes or 70oC for 2 minutes or 75oC for 15 seconds core food temperature.	2
26*	Cooked food intended for refrigeration is cooled appropriately.	4
27*	(High risk food is cooled from 60o C to 21oC within 2 hours or less and further cooled to 5o C within two hours or less.)	4
28	Food portioning is done in hygienic conditions. High risk food is portioned in a refrigerated area or portioned and refrigerated within 30 minutes. Large amount of food is portioned below 15 o C.	2
29*	Hot food intended for consumption is held at 65o C and non-vegetarian food intended for consumption is held at 70oC. Cold foods are maintained at 5oC or below and frozen products are held at -18o C or below.	4

30	Food and non-food products transported at same time in the same vehicle are separated adequately to avoid any risk to food.	2
31	Cutlery, crockery used for serving and dinner accompaniments at dining service are clean and sanitized free from unhygienic matters.	2
32	Packaging and wrapping material coming in contact with food is clean and of food grade quality.	2
III.	Maintenance & sanitation	
33	Cleaning of equipment, food premises is done as per cleaning schedule & cleaning programme. There should be no stagnation of water in food zones.	2
34	Preventive maintenance of equipment and machinery are carried out regularly as per the instructions of the manufacturer. Check for records.	2
35	Measuring & monitoring devices are calibrated periodically.	2
36	Pest control program is available & pest control activities are carried out by trained and experienced personnel. Check for records.	2
37*	No signs of pest activity or infestation in premises (eggs, larvae, faeces etc.)	4
38	Drains are designed to meet expected flow loads and equipped with grease and cockroach traps to capture contaminants and pests.	2
39	Food waste and other refuse are removed periodically from food handling areas to avoid accumulation.	2
IV.	Personal Hygiene	
40	Annual medical examination & inoculation of food handlers against the enteric group of diseases as per recommended schedule of the vaccine is done. Check for records.	2
41	No person suffering from a disease or illness or with open wounds or burns is involved in handling of food or materials which come in contact with food.	2
42*	Food handlers maintain personal cleanliness (clean clothes, trimmed nails & water proof bandage etc.) and personal behaviour (hand washing, no loose jewellery, no smoking, no spitting etc.)	4
43	Food handlers are equipped with suitable aprons, gloves, headgear, etc.; wherever necessary.	2
V.	Training & records keeping	
44	Internal / External audit of the system is done periodically. Check for records.	2

45	Food Business has an effective consumer complaints redressal mechanism.	2
46	Food handlers have the necessary knowledge and skills & trained to handle food safely. Check for training records.	2
47*	Appropriate documentation & records are available and retained for a period of one year, whichever is more.	4
	TOTAL SCORE	114



PART B

HEALTHY FOOD CHECKLIST

S. N.	DAILY HEALTHY FOOD CHECKLIST	SCORING
I	Local, Seasonal & Traditional Food	
1	Do the food service establishments in the campus sell/provide fresh, seasonal and local fruits /vegetables/salads?	1
2	Do the food service establishments in the campus use a variety of local whole grains such as bajra, ragi, millets, jowar, amaranth, wheat, corn, rice, oats, barley, quinoa, sorghum, spelt, rye, samai, whole/ unpolished pulses and legumes to prepare food?	1
3	Do the food service establishments in the campus sell/provide local/ regional/seasonal/traditional dishes? (Idli, upma, dhokla, chilla etc)	1
II	Healthy Food Options	
4	Do the food service establishments in the campus sell / provide healthy snack options such as makhana, nuts, puffed rice, puffed wheat, water chestnuts, roasted seeds (lotus, flaxseed, pumpkin etc.)?	1
5	Do the food service establishments in the campus sell / provide healthy beverage options such as lemonade/shikanji, coconut water, buttermilk, aam panna etc)?	1
6	Do the food service establishments in the campus provide a variety of food options that include all food groups such as cereals, dairy (yoghurt, curd, milk, paneer, cheese), fruits and vegetables etc.?	1
7	Do the food service establishments in the campus use healthy cooking methods like steaming/boiling/roasting/grilling for food preparation?	1
8	Do the food service establishments in the campus use different type of oils in rotation for food preparations?	1
9	Do the food service establishments in the campus avoid the re-use of oil that has been used for frying?	1
III	Limiting use of foods high in salt, fat and sugar	
10	Do the food service establishments in the campus avoid vanaspati/ bakery shortening/margarine (hydrogenated fat) in food preparation?	2
11	Do the food service establishments in the campus limit selling/serving food high in fat/oil, sugar and salt (eg: samosa, chola bhatura, french fries, fried food, cakes, sweets, namkeen,, sice creams etc) to less than 10% of overall stock?	2

12	Do the food service establishments in the campus limit the use of sugar sweetened and /or aerated beverages to less than 10% of overall stock?	2
13	Do the food service establishments in the campus avoid putting salt/ sugar/pickle on food tables or serving on the side?	1
14	Do the food service establishments in the campus limit the amount of salt, sugar and oil while preparing/cooking food? (track and monitor the purchase and consumption of salt, sugar and oil)	1
IV	FORTIFIED FOODS	
15	Do the food service establishments in the campus use fortified rice, wheat flour and double fortified for cooking?	1
16	Do the food service establishments in the campus use fortified edible oil for cooking and frying?	1
17	Do the food service establishments in the campus provide/use fortified milk for preparing food?	1
V	Healthy Lifestyle	
18	Does the campus have a creche and a room/facility for mothers to breastfeed infants?	1
	SUSTAINABLE FOOD CHECKLIST	Scoring
19	Is there some provision in the campus for people to engage in physical activity such as parks for walking, yoga/aerobics/zumba classes, gym etc? Is physical activity encouraged in any way such as designating a 'play-time' or organizing a 'sports day' etc.?	2
20	Does the campus organize activities or make provisions to promote wellbeing such as meditation classes, nature walks, counselling sessions and entertainment activities etc.?	2
	TOTAL SCORE	25



PART C
SUSTAINABLE FOOD CHECKLIST

S. N.	SUSTAINABLE FOOD CHECKLIST	SCORING
I	RUCO- Repurpose of Used Cooking Oil	
1	Do the food service establishments in the campus ensure that vegetable oil having Total Polar Compound (TPC) more than 25% is not used. Customized checks should be done either through an SOP or the TPC meter. If using equipment, staff should be trained to use and clean it?	1
2	Do the food service establishments in the campus maintain Used Cooking Oil disposal records as per FSSAI directions, if consumption is above 50 litres/day? Does the facility aggregate used cooking oil and store it separately from fresh oil with proper labelling?	1
3	Do the food service establishments in the campus ensure that the stored used cooking oil is collected by authorized aggregators and then used for repurposing into biodiesel?	1
II	No Food Waste	
4	Do the food service establishments in the campus monitor food waste daily in kgs (dry and wet waste) and conduct food waste audits?	1
5	Do the food service establishments in the campus follow methods to reduce food waste such as small portion sizes, using food before it gets spoiled, procuring only as much food as required etc.?	1
6	Is food waste collected separately and recycled/reused/repurposed into compost or any other reuseable form in the campus?	1
7	Is surplus food that is safe for consumption shared with those in need directly or through food collection agencies (such as Indian Food Sharing Alliance)?	1
III	Environment-friendly Initiatives	
8	Does the campus minimize plastic-use and use safe, alternate options such as cloth/paper bags, glass bottles and biodegradable utensils?	1
9	Does the campus organize waste collection drives and recycle plastics, cans, papers etc.?	1
10	Does the campus recycle and reuse water (with treatment if necessary)?	1
	TOTAL SCORE	10

PART D
BUILDING AWARENESS CHECKLIST

S. N.	BUILDING AWARENESS CHECKLIST	SCORING
1	Are awareness messages on topics of Part A, B, C of the checklist disseminated in the campus through posters placed in prominent places, whatsapp/phone messages, emailers and other means on a regular basis?	5
2	Are important days such as World Food Day, World Food Safety Day, World Environment Day etc. celebrated in the campus every year for awareness-building?	5
3	Are there activities organized in the campus to engage, excite and enable people to make the right food choices such as a demonstration of tests of common food adulterants, counselling sessions by a nutritionist, health camps/check-ups, cleanliness drives, healthy cooking demos, games, challenges etc at least once a month?	5
4	Does the campus provide 'nudges' to people to choose healthier options such as placing healthy food options in prominent places in the canteen, placing weighing machines in the campus offices, subsidizing healthier options such as gym discounts or low-cost healthy food options, provide nutrition information for food, share lists of healthy eating/ordering joints etc.?	5
5	Is there a feedback system for people to provide suggestions, file complaints and in general improve the campus to promote safe, healthy and sustainable food and overall health?	5
	TOTAL SCORE	25





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LET US KNOW WHAT YOU THINK

Name: _____

Address: _____

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Gender: Male Female

Campus: _____

Designation: _____

Did you find the Orange Book useful? Yes No

Did you find the Orange Book easy to read? Yes No

Would you like to know more about food safety and nutrition? Yes No

What do you think should be added to the book?

What do you think should be removed from the book?

Please add any other suggestions for the Orange Book.

Please send this form by post or email to:

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