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GRAHAK SATHI

Buying Guides - Consumer Products

Make more informed choices



CONSUMER EDUCATION AND RESEARCH CENTRE
AHMEDABAD

HELPLINE NO. 1800 233 0332

Email : cerc@cercindia.org, grahaksathi@cercindia.org

Consumers often face confusion and challenges when making purchase decisions for various products and services due to the availability of wide array of features, competing brand claims, varying prices, and marketing tactics. We, at CERC, try to help consumers by making it easier for them to choose by empowering them with the knowledge to make informed choices. With this aim, we regularly publish easy-to-understand Buying Guides in **Grahak Sathi**, which are designed to help readers navigate the complex market landscape. These Guides have become a trusted resource for many, offering valuable insights and practical tips for selecting products that best suit their needs and preferences.

In response to feedback and requests from consumers who have benefitted from our previous Buying Guides, we are excited to present this updated and expanded edition of our Buying Guides. This edition includes more products, additional insights, and the latest information to empower you in your purchasing journey. We are confident this comprehensive and ready-reference e-book will be a trusted companion for all your buying decisions.

Buying Guide - Product Categories

1. Electrical Home Appliances
2. Food Products
3. Other Items



ELECTRICAL HOME APPLIANCES

In today's world, electrical home appliances are indispensable companions in our daily lives, offering convenience, comfort and efficiency. From the kitchen to the living room, these appliances streamline tasks, saving time and energy while enhancing our overall comfort and enjoyment at home.

Given here are Buying Guides for the following commonly used appliances:

- Air conditioner
- Air cooler
- BLDC Ceiling Fan
- Air purifier
- Air fryer
- Hand Blender
- Mixer Grinder
- Electric Juicer
- Electric Sandwich Toaster
- Pop-up Toaster
- Microwave Oven
- Dishwasher
- Exhaust Fan
- Water Heater or Geyser
- Washing Machine
- Vacuum Cleaner
- Steam Iron
- Oxygen Concentrator



Air Conditioner

Many of you may be planning to buy/replace an air conditioner as the summer arrives. Here is a quick reference to help your purchase.

Type: There are various types of ACs available in the market from window to split, with inverter or without inverter. Each has its merits and demerits. The type of AC you choose will also depend on the room that you need to fix the AC in, and your budget.

Capacity or Tonnage: The recommended capacity or tonnage of the AC depends upon various factors like the size of the room, window area exposed to the sun, room insulation, the overall weather conditions, number of people in the room etc. Here is an easy and quick guide:

Room Size(Area)	AC Capacity
Upto 90 sq. ft	1 ton
Upto 110 sq. ft	1.2 ton
Upto 150 sq. ft	1.5 ton
Upto 200 sq. ft	2 ton

If your room gets direct sunlight in the later part of the day or if the room has high ceilings you may need to buy an AC with higher capacity for better efficiency. Similarly, if your room is not

well insulated you may require a higher capacity AC. If you buy an AC with a higher than recommended capacity, you will end up paying more for the purchase.

Energy Efficiency Rating: The efficiency rating of an appliance is given by Bureau of Energy Efficiency (BEE) on a scale of 5. More the stars, higher is its efficiency and less the power consumption. An AC with a higher star rating will be more expensive than the one with lesser stars but it is a one-time investment. In the long run you will save on the electricity as it will consume less power. However, if you are to use the AC only for a few hours at night during summer, you may consider buying an AC with lower star rating.

Copper coils: Select a model that has copper coils. Although copper coil ACs may be a little more expensive than aluminium coil ones, they are more durable, efficient and easier to maintain.

Some additional features you may want

Wi-Fi compatibility: This enables you to control your AC even when you are not at home.

Filters: Many ACs claim to have anti-bacterial filters that help disinfect the air of bacteria and other germs. Some even claim to remove odour. It is advisable to verify such claims before buying.

Self-clean feature: It cleans the filter periodically on its own.

Sensors: This monitors the presence of people and accordingly increases or reduces the air flow/room temperature.



Air Cooler

Air coolers are a good cooling option for places with hot and dry weather. Here is a guide to help you select the right air cooler.

Choose the right size: Choose an air cooler size depending upon where you intend to use it. A small cooler in big area will not cool efficiently while big cooler in small area will make it humid. A personal/tower cooler cools an area of about 100-120 sq. ft. For medium size rooms opt for window air coolers, while for larger areas (more than 200-250 sq ft) opt for desert cooler. Also check the airflow details.

Power consumption rating: For most homes, an air cooler with power rating between 200–300 Watts would be an ideal choice for a good balance between effective cooling and electricity bills. Rating lesser than 200 Watts would give relatively less cooling, whereas greater than 300 Watts would give better cooling but would mean higher energy consumption and therefore higher electricity bills. Branded air coolers mention power rating. However, if you buy a non-branded or assembled cooler, ask about it.

Type of cooling pads: Two types of cooling pads are used in air coolers- honeycomb pads made of cellulose and aspen pads made of wood wool. Cooling pads should be minimum 90 mm thick. Honeycomb pads are claimed to be more efficient, look better and last for 3-4 years, but are more expensive to replace. Aspen pads are claimed to be efficient in very hot and dry conditions, but need to be replaced every year. They are significantly less expensive to replace.

Water level indicator and ball cock: Water level indicator is of great use to check the water level so that you do not have to look into the tank to check water level. Most coolers come with this. Some also come with ball cock to connect to running water and thus provide additional advantage.

Other features: Most coolers these days come with a remote. Some also claim to have additional features like inverter power compatibility, mosquito repellent and air purification technology, humidity controller, IoT enabled etc. These claims may need to be verified.



BLDC Ceiling Fan

BLDC fans are made with ultra-smart technology and have an appealing aesthetic design. BLDC stands for 'Brush Less Direct Current' which uses permanent magnets with electronic drive circuit and not carbon brushes.

Energy efficiency:

As per BIS Standards, a 1200mm size fan should have a minimum airflow of 210 CMM (Cubic Meter Per Minute). Regular ceiling fans consume 70 - 80W with airflow of 230-250 CMM, while BLDC fans consume only 28 - 38W for the same airflow. Despite the higher initial cost, investing in a BLDC fan instead of a regular fan can lead to savings in electricity bills, with the additional higher cost being recovered in less than two years.

Consider these factors before buying BLDC Fans

Size of the fan:

- The size of a BLDC fan is dependent on the size of the room where the fan will be fitted.

Room Size (feet)	Fan size (mm)
8x8 to 9x11	900 mm / 1050 mm
10x10 to 10x12	1200 mm
12x12 to 13x16	1400 mm

- Use multiple fans for rooms larger than 225 square feet.
- Opt for 600mm fans for smaller spaces like store rooms, kitchens, and office cabins.

- Avoid oversized fans to prevent unnecessary power usage and noise, and undersized fans for inadequate cooling.

Energy star labelling: Choose a 5-star labeled BLDC ceiling fan certified by BEE and BIS for safety, durability, and efficiency.

Fan blades: Choose a BLDC fan with aerodynamic blades or tilted design for better air movement. Fans with three blades are more energy-efficient.

Cost: A basic BLDC ceiling fan may cost somewhere between Rs. 2,900 and Rs. 3,500. High-end BLDC ceiling fans with smart features like wi-fi support and motion sensors, inbuilt LED lights, decorative options may cost up to Rs. 9,000 or more.

Guarantee / Warranty: Check for a warranty of two to five years and ensure terms are endorsed by the dealer.

Ease of cleaning: Select a fan with simple design for easy maintenance and optimal performance.

Additional features

WiFi compatibility: This enables you to control the ceiling fans remotely even when you are not at home.

Sensors: Adjust airflow based on presence detection.

In-built LED lights: These fans offer versatile lighting options as an alternative to chandeliers.



Air Purifier

There are a lot of different factors to consider when buying an air purifier, from the cost to the design, but the most important is how effective the purifier will be for you.

- CADR (Clean Air Delivery Rate) value on the label shows the speed at which the purifier can filter dust and smoke particles in air within the specified room size. CADR ranges from 200 to 400 CMH (cubic meters per hour). Select a purifier with a higher CADR value for faster air purification for the same coverage area (size of room).
- Select an air purifier with around 20% larger coverage area than the size of room in which it will be used. It will not need to run the fan as fast, and thus will be quieter and consume less energy. Hence, purifier with coverage area 120 sq. feet will be more effective for a 100 sq. feet room.
- Also consider Air Change per Hour value – the number of times per hour that the purifier is able to filter all the air in the room. It is advised that the purifier should completely clean the air in the room at least once every 20 minutes, and ideally at least once every 12 minutes.
- Make sure that you buy a purifier with a genuine HEPA filter, as that is an international standard. There are no proper standards for purifiers in India so as consumers, we need to watch out for such facts.
- Check the noise level. Noise level of 50db marked on label is similar to that created by refrigerator which is comfortable to live with.
- Choose a model with multiple fan speeds, remote control, wheels and handles for easy mobility if you want to use it in multiple rooms.
- Select a purifier with washable/reusable pre-filters.
- Select a purifier with real time indicators to get air quality updates and alerts for changing filters.

- Check the after sales services of the brand that you are considering and also check the warranty terms.

How to choose air purifier based on your need

- Health benefits from using an air purifier vary from person to person and depend on the types of pollutants in the home.
- People with low immunity levels, asthma, and those on dialysis should opt for an air purifier with true HEPA filter, pre-filter and should avoid Ozone based purifiers.
- People living in industrial areas should opt for a purifier with activated carbon filters to remove the odour in air.
- People with pets and those living near construction areas should ensure that the purifier has a strong pre-filter. The pre-filters should be replaced frequently.
- Remember, air purifier does not cure allergies or breathing problems. It just improves air quality of your living area by preventing dust/ any other particles, but it cannot act as a medicine or a therapy.



Air Fryer

There are a number of air fryers available in the market. Here are some important points to keep in mind before purchasing an air fryer.

Capacity: Air fryers come in different capacities ranging from 1.5 to 12 litres. 4 to 6 litres capacity is ideal for a family of 4.

Wattage: Air fryers generally operate on 1000 to 1800 Watts. Most air fryers come with a 3-pin plug. This helps avoid accidents due to electric shock.

Cleaning: Look for a model that is easy to clean as it is very important to clean the air fryer after every use. Some brands come with attachments that are dishwasher friendly.

Temperature control: This is an important feature to cook a variety of foods. A high temperature of 200°C is required to cook chicken nuggets and tandoori whereas cooking vegetable dishes or baking cake etc. may need different temperatures. Therefore, opt for an air fryer that features temperature control.

Cost: Air fryers are an expensive appliance with cost ranging from Rs. 3,900 to Rs. 20,000. Their price is based on the size (capacity), wattage, and availability of other features like pre-programmed recipe settings, food separators/compartments etc.

Cord length: The cord length of most air fryers will be around 1.5 meters. Having a long cord helps in manoeuvrability and easy use.

Safety: Look for a well-insulated air fryer that has a cool-touch hand grip so that your hands do not get burned while pulling out the basket. Also, the base of the machine should be anti-skid so that the fryer does not slip. Some fryers also have the feature where it stops functioning if the tray is not set properly.

Automatic functionality: An automatic shut-off feature prevents over-cooking of food. The air fryer will turn off automatically once the cooking is done and will ring an alarm.

Food separator: Some air fryers have food separators that let you cook multiple food items at the same time.

Pre-programmed recipes: Some models have pre-programmed settings for recipes customised for Indian cooking.

Sustainable choice: Air fryers with pre-programmed settings (recipes), less noise and wattage rating of 1000W can be a sustainable choice.



Hand Blender

Hand blenders, also known as stick blenders, stem blenders or blending rods, are a popular kitchen appliance because of their compact size and convenience of use. They can be used for blending foods in any small container or in the cooking pot itself by popping the rod straight into the vessel. These are easy to use, store and clean and also quick for dealing with small quantities of food. Hand blenders are usually used for pureeing cooked vegetables or dal, soups, sauces, making fruit smoothies, milkshakes, lassi, buttermilk, making baby foods, etc.

Types of hand blenders: Two types of hand blenders are available - one with complete insulated / plastic body and the other with metal based outer shaft. The power rating ranges from 125W to 300W and the cost from Rs. 500 to Rs. 3,000.

Blenders have a small motor housing inside the stem and a shaft with a blade at its end. Simple blenders have a fixed all-purpose blade. However, more expensive models are available which provide other attachments and separate detachable blades for various functions like chopping, mixing, beating and whipping.

What to look for when buying a hand blender

- Look for ISI marking (IS 302-2-14) for safety.
- It should have a thick and long power cable, preferably 2 meters long.
- Hand blenders are operated by continuously holding them and using the switch (on/off and different speeds) at the same time. Therefore, look for a model with sleek handle, better grip, and switches that are wide enough and comfortable for fingers to change the speed or to switch off/on while operating.
- A blender with push button switches is safer, as it shuts the blender down as soon as one takes the finger off the button.
- A hand blender with a detachable shaft/blade is easy to clean. However, check the ease of dismantling the shaft /blade before selecting.
- A blender with long stem/shaft can be used with vessel of any shape.
- A blade guard will help prevent accidental contact with sharp edges/moving blades.
- The additional chopper attachment is useful for performing the daily tasks of chopping onions, garlic, ginger etc. faster and more uniformly.
- The additional whisking /whipping blade/ attachment is useful if you frequently make omelettes, cakes and desserts.
- People with painful or weak hand, disability, one hand users can select a light weight blender with large grip area, manageable rod length and push buttons.
- For visually impaired people, sleek models with fixed guarded blades are the best choice.



Mixer / Grinder

A mixer/grinder (also called mixie) provides great convenience for Indian cooking which requires wet or dry grinding of a variety of ingredients on a daily basis. The appliance has two units - the bottom unit consists of a high-speed motor connected with a speed controlling switch and power supply cord, while the top unit consists of a container bowl with the mixing/grinding blade.

- Choose a mixer based on your needs and the tasks you most often do in the kitchen. Mixers are available with a variety of features and accessories at a cost ranging from of Rs. 1,500 - 8,000 and with power rating of 500/550/600/750 W. A lot of mixing, grinding, grating, mincing, and chopping functions can be effectively done with a 500/550/600W rating mixer.
- Before buying (online or from authorized dealer), check to ensure that the packing contains all accessories, operating instruction manual, details of service stations and signed copy of bill with guaranty /warranty card.
- Select a mixer/grinder/blender which has ISI mark (IS-302-2-14 for hand-held blender and IS 4250 for mixer/grinder).
- Look for a model with thick power cable and 3-pin plug attached to mixer body with cord guard. This helps avoid accidents due to electric shock.
- Position of overload protection switch should preferably be at the edge of mixer body for easy operation, rather than at the bottom.
- Arrow/symbol for direction of fixing and removing the jars should be marked for convenience of use.
- There should be legible and durable marking of speeds on the operating switch. This also helps in safely switching it off from any speed.
- Mixer bowls with removable blades are more convenient to clean than the ones with fixed blade.
- Some models provide draining pipe within the mixer body and others give water outlet outside the mixer body (near bowl fixing area) to avoid damage to motor due to seepage of water/liquid. Select model with outlet outside the body for easy maintenance and cleaning.
- Choose mixer with interlocking safety system which does not allow machine to start unless the bowl is properly fitted.
- Look for a model with low or moderate noise.



Electric Juicer

Type of Juicers

Centrifugal Juicers

Centrifugal Juicers, known for quick extraction but noisy operation are available as standalone units or as mixer grinder attachments. These normally offer a 2-year warranty for the machine and 5 years for the motor. Fruit/vegetables need to be cut small in mixer grinder unit attachments and pulp cleaning is required often. Power ratings range from 600 - 2000W and costs from Rs. 2,000 - 6,000. Standalone units have wide feeder tubes and separate juice and pulp jars, power ratings from 400 - 1000W and cost between Rs. 3,000.

Cold Press Juicers

Cold Press Juicers extract juice from fruits, vegetables, and greens gently without heat, preserving nutrients and enzymes. They operate quietly at low speeds. Power ratings typically range from 150 - 500W. Most come with a 5-year motor warranty and 2-year warranty overall, and cost between Rs. 10,000 - 20,000 based on brand and features.



Features to consider before purchasing an Electric Juicer

Easy to use: Opt for a juicer with a simple-to-use rotary knob or touch panel for controlling speeds.

Juicer jar size: Choose one with a high jar that reaches the spout to avoid spills and holds enough juice to minimize emptying interruptions.

Detachable jars: A detachable juicer jar facilitates easy cleaning. The pulp collector Jar should also be easily detachable for proper cleaning.

Sieve material: Opt for rust-proof, removable stainless steel sieves for easy cleaning.

Power cord: Look for a long cord (2m or more) and a cord winder for convenient placement and storage.

Easy to assemble and dismantle: Ensure easy fitting and cleaning of various parts like sieve, cover, and jars.

Anti-skid base: Check for vacuum base or stable base to prevent the Juicer from toppling over when in use.

Wide feeding tube: Saves time and effort by juicing whole fruits or large pieces without chopping.

Anti-drip Spout: An anti-drip spout will ensure that any left-over juice in the juice container does not drip on the countertop.

Warranty: Check exactly what parts are covered under the warranty. Some brands may not cover certain parts of the Juicer under the warranty.

Look for an electric juicer with at least one-year warranty, and local service stations. A power rating of 200W to 400W is sufficient for an average family of four. Check the user manual to confirm that the selected juicer meets your requirements.

Electric Sandwich Toaster

Electric sandwich toasters are simple to use, comfortable and cost effective. However, when making your purchase decision, find out the various features available, if they meet your requirements and give you your money's worth. Also ensure that the sandwich toaster you choose has ISI mark.

Electric sandwich toaster is normally available with power rating of 650W to 1500W. It usually makes four-triangle sandwiches. It can cost between Rs. 900 to Rs. 4,500 depending on brand, capacity (2 slice or 4 slice), interior design and other additional features.

Features to consider before buying an Electric Sandwich Toaster

Size and Capacity: Consider your family size and usage. A 4-slice toaster is ideal for medium-sized families, while a 2-slice toaster is adequate for a single person.

Power rating/wattage: The higher the wattage, the faster it toasts the sandwich. Buy a 700-750W

sandwich toaster to make crispy, well-grilled sandwiches quickly.

Outer body: To avoid burns and shocks, choose a toaster with a totally insulated outer body, and heat-resistant or cool-to-touch body.

Handle: Avoid sandwich toaster with handles made of cheap plastic that heats up and breaks down. Choose one with a good heat-resistant handle.

Inner cooking surface: Check that the toaster's inside toasting/grilling surface is non-toxic and nonstick. This prevents cheese, drippings, and breadcrumbs from adhering to the pan. It also simplifies sandwich toaster use and cleanup.

Indicator lights and beeping signals: This feature allows you to grill and toast sandwiches without the need of constant monitoring, enhancing efficiency and making it easy to use.

Adjustable heat settings: Sandwich toasters with heat control settings let you cook sandwiches at moderate or high temperatures for different crispiness and colour.



Pop-Up Toaster

A Pop-up Toaster is a useful appliance to have if you like to eat toasted bread. It is affordable, portable, light weight and compact, and easy to use, clean and maintain. It gives you crisp crunchy toast very quickly.

Things to keep in mind while selecting an Electric Toaster

Size/Capacity: Check how many slices it can toast at a time, and if it has wide slots for a variety of breads.

Price: Toasters can cost from Rs. 800 to Rs. 10,000, hence it is important to know what your needs are. You can get a satisfactory toaster with a budget of Rs. 1,000 to Rs. 2,500 for a family of four.

Durability: Look for brand reputation, warranty, and after-sales service.

Important features to consider

Auto shut-down / Auto cut-off: With this feature, the toaster automatically switches off and pops-up after completing the toasting, even if it is left on or unattended by mistake.

Cancel function/button: Allows early toast removal for desired browning.

Browning options: Choose a toaster that offers at least 5-7 browning options. With the help of a knob, lever or electronic control, you can choose to make light to dark brown toast and even extra crisp toast.

Cool touch body: The internal body of toaster gets hot during toasting, hence additional insulation is used between the heating chamber and outer body.

This makes the outer body cool and safe to touch while toasting.

Material of toaster: Toasters with both internal and external body made of stainless steel are preferable.

Bread carriage tray: Bread carriage tray made of stainless steel is best as it is robust and gives long lasting performance.

Non-skid rubber base: This helps to use the toaster safely with no fear of it skidding.

Removable crumbs tray: A removable crumb tray is easier to clean and maintain. It should also be easy to remove and fit.

Length of power cord: Opt for 2 meters length for convenient placement.

Warranty: Select a toaster with a longer warranty period which also covers any defects or problems that may arise.

High Lift function: The high lift handle/lever can be pulled to lift the toast a little higher than the toaster. This helps to get smaller slices out easily.

Wide Slots and built-in bun warmer: Accommodates thick slices and buns.

Auto centering function: This function automatically centers the bread for uniform toasting.

Reheat function: This helps to reheat the toasted bread without making it darker.

Defrost function: This function helps to defrost the cool/frozen bread and bring it to normal temperature.



Microwave Oven

To find a Microwave Oven most suitable for you, consider the types available and their capacity, before deciding on additional features.

Types

- **Solo Microwave Oven:** Basic model for reheating, simple cooking, and defrosting. Cannot grill or bake.
- **Grill Microwave Oven:** Similar to solo, but with additional grilling features and accessories. Suitable for grilling meat, vegetables, and making popcorn.
- **Convection Microwave Oven:** Offers microwave cooking along with grilling, baking, roasting, browning, and crisping. Provides mode selection for microwave, grill, or convection, with some models offering combination settings.

Capacity

Microwave ovens typically range from 15 to 35 litres in capacity, indicating how much food you can cook at once. Select the type and size based on your family size and usage.

Price

Microwave oven prices vary by type. Solo microwaves range from Rs. 5,000 to 8,000, grill microwaves from Rs. 8,000 to 10,000, and convection microwaves from Rs. 12,000 to 20,000 or more, depending on brand and size.



Features to look out for while purchasing a Microwave Oven

Power rating: Microwave ovens come in the range of 600 to 1500 watts. More wattage means faster cooking as it generates higher heat in less time. A powerful microwave can cook for more people but a less powerful oven is sufficient for a small family.

Child Lock: Child lock is a unique feature that disables the microwave's functionality and helps keep your kids safe if they put their hands in the oven accidentally.

Auto Cook: With this feature you can select the dish type you want to cook from the auto cook menu, and the microwave will auto adjust the wattage and time based on the food weight.

Defrost: Rapidly and evenly defrosts frozen foods.

Preheat: Preheating of the oven may be required for certain recipes and can be done with grill/convection microwave ovens. Preheating should not be attempted in the microwave mode or in solo microwave ovens.

Timer: This allows you to set the cooking duration. You can specify how long the microwave should operate from 30 seconds to 10 minutes.

Operating Panel Types: A mechanical or dial type control panel uses a knob. It comes in low-end models, is easy to use and can handle rough usage. The touch panels operate by sensing the touch of your fingers.

Microwave oven accessories: Includes microwave-safe cookware, utensils, bowls, and accessories like gloves and stands.

Dishwasher

Buying a dishwasher can be confusing given the number of models available in the market. Several factors need to be considered when purchasing a dishwasher. Given below is information to guide you while choosing a dishwasher.

Type: The choice between a built-in, portable or countertop dishwasher would depend upon the size of your home, family size, frequency of use and average load.

Size and capacity: Choosing the right size of dishwasher is important. A compact dishwasher (18-inch) is adequate for a small family of 2 to 4. A standard size (24-inch width) dishwasher is ideal for a larger family.

Energy efficiency: It is recommended to choose a dishwasher with 3 or more energy star rating by the Indian Bureau of Energy Efficiency (BEE). Most dishwashers consume 1 to 2 units (kWh) of power for each load of dishes. However, these days you can choose dishwashers that are highly energy efficient and use only about 0.8 kWh per load.

Wash cycles: Dishwashers come with several wash cycle settings - light wash, regular wash, heavy wash (pots and pans) and other settings. Different settings consume different amounts of energy, water and

detergent. Dishwashers also have options to adjust the temperature of the water and steam. Hot water helps clean oily and greasy stains. Dishwashers with steam drying option give you ready-to-use utensils which don't require to be wiped with a cloth.

Number of racks: Check the number of racks, their arrangement and if they are movable. Standard dishwashers usually have two racks, while some may have three. Racks are designed to accommodate all types of utensils including tall glasses and oddly-shaped utensils. Most dishwashers, across every price range have height adjustable racks and removable baskets.

Cutlery basket: Several dishwashers provide a cutlery basket for placing all the cutlery including tall spoons.

Tub type: Most affordable dishwasher models use plastic tubs, while higher-end models use stainless steel tubs. Stainless steel tubs are more durable than plastic ones, but that doesn't affect the wash performance of the dishwasher.

Noise: A dishwasher which operates silently should be preferred as it runs for a long time.

Other features to consider: Child-safety lock, error alert, weight alert, anti-flood feature.



Exhaust Fan

Exhaust fans or ventilating fans are installed on the outer ends/walls of houses to expel the foul/stale/moist air from inside to outside. Exhaust fans in kitchen, bathrooms, toilets and basements help to minimise the risk of indoor air pollution.

Things to keep in mind while buying an Exhaust Fan

Place of use

Exhaust fans with 125/150/200mm sweep sizes work well in bathrooms and toilets and 230/250/300mm in the kitchen.

Material (Plastic or metal)

The exhaust fan blades typically get greasy from kitchen odours, dampness, and smoke. These need regular cleaning. For your kitchen, choose a metal-bladed fan that is easy to clean.

In bathrooms and toilets, humidity and odour are major issues. Exhaust fans with plastic blades don't corrode. For pest and bird protection, louvers are best.



Purchase cost

The size, material, design, and motor quality utilized to meet BIS safety, quality, and performance criteria determine the cost of these fans. Rs. 1,000 – Rs. 1,500 is typical for household exhaust fans.

Power rating

Fans rated 30W to 40W function well with minimal power. Therefore, these are sustainable.

Warranty and Guarantee

Check the manufacturer's warranty and terms. To avoid problems, study the warranty terms and receive the dealer's endorsement before buying.

Tips for installation

- Avoid placing the fan directly over a heat source.
- Mount the fan at a sufficient height to prevent exposure to excess smoke or vapour in the kitchen and water splash in the bathroom.
- Keep the fan away from doors or open windows, ensuring the area around it is fully enclosed.
- Ensure there is ample open space on both the inlet and outlet sides of the fan.

Tips for maintenance

- Clean blades and body regularly with a moist towel, but switch off the fan first.
- Avoid using chemicals, fuel, benzene, or thinner on plastic parts.
- Do not immerse plastic parts or blades in boiling water or let water into electrical components.
- Once a year, add 10-12 drops of lubricating oil to the two holes on the external cover to keep the fan motor in good condition. Close the holes with caps afterward.

Water Heater / Geyser

Here is a buying guide to help you choose the right Water Heater/Geyser for your use in the winter season.

Types of water heater

Water heaters can be storage type or instantaneous. They can be operated with electricity, gas or solar energy. They can be further classified as:

Electric - Storage type or instantaneous type

Solar - Storage type

Gas - Instant type

Energy Cost

- Energy cost for using an electric geyser for 2 hours/day with a power rating of 2.0KW is about Rs. 20/day, Rs. 600/month, Rs. 7,300/year. (Considering electricity tariff rate of Rs.5/unit)
- Energy cost depends on two main factors-
 - Power rating marked on geysers - e.g. 2.0KW, 3.0KW, 4.5KW.
 - Total time for which it is used to heat the water (by all family members) - e.g. 30 minutes by one person so a total of 2 hours by a family of four. Actual running time will depend on weather, personal preferences and if geyser is instant or storage type. However, it is advisable to switch off the geyser when not using.

- Electric water heaters are affordable to purchase. Although one would incur some monthly running expense for using it, these water heaters ensure ample supply of hot water when electricity is regular.
- The purchase cost and running cost of gas water heater maybe very similar to electric water heaters, but they are generally available only with low capacity similar to instant type electric water heater.
- The purchasing cost of solar heaters is relatively very high as compared to other water heaters but its energy cost is nil. There is, however, a marginal maintenance cost involved (Rs 3,000 – 5,000/year).

General safety precautions

- Buy geysers with auto cut-off feature and indicating lights.
- It is advisable to get all types of geysers installed through authorised service centre for safety.
- Ensure use of proper size plugs and sockets for power supply to geysers. E.g. 4.5KW instantaneous geysers should be given supply from 25A switch and 3.0KW from 16A switch.

Check for safety features, after sales service and warranty before buying.



Washing Machine

A vast variety of models with different types, design, and features are available in the market. This Buying Guide will help you to choose a Washing Machine which is user friendly, and suits your needs, the space in your house and your budget.

Factors to consider before selecting a washing machine

Capacity: Choose a capacity suitable for your family size. For a family of four, an 8-10 kg capacity is recommended. Larger families may require higher load capacities.

Power Rating: Consider the power rating of the machine. Semi-automatic machines range from 400W to 600W, while fully automatic ones range from 400W to 2000W.

Size: Measure the space available for installation. Semi-automatic machines are approximately 120 cm length X 60 cm width X 90 cm height, while fully automatic ones are usually around 100 cm length X 60 cm width X 90 cm height.

Settings Options: Some machines include settings for different fabrics, including wool or delicate clothing. Some provide settings for pre-soaking before the wash cycle.

Cost: Costs vary depending on capacity and additional features. Semi-automatic machines range

from Rs. 6,500 to Rs. 15,000, while fully automatic ones range from Rs. 10,000 to Rs. 70,000.

Affordable models with a power rating of 400W to 700W and costing around Rs. 12,000 are available. Monthly energy costs for such machines without inbuilt heaters are approximately Rs. 100 to 120.

Additional Features

Auto detergent dispenser: These can determine the required quantity of detergent using load sensing sensors. This helps to use optimum quantity of detergent.

Fuzzy logic: This feature checks for the extent of dirt and grease in clothes and chooses the best wash cycle by estimating load, water and soap requirements.

Inbuilt heaters: Useful for heavily soiled clothes or hard water areas, but increases energy consumption. Opt for models with 4-to-5-star energy ratings for better efficiency.

Thermal dryer: Utilizes hot air while spinning to completely dry.

Energy efficiency: Consider models with 4-to-5-star energy ratings to minimize power consumption.



Vacuum Cleaner

Before buying a Vacuum Cleaner, consider your specific needs such as the size of the house, flooring type and amount of dirt to be cleaned regularly because the efficiency of Vacuum Cleaner depends on suction power, filtration system and design of cleaning attachments. Generally Indian households require a multipurpose Vacuum Cleaner. Hence it is important to look for required attachments before purchasing the Vacuum Cleaner.

Cost of Vacuum Cleaners varies with additional attachments, features, quality and number of filters used and convenience of use. Cost of premium models is much higher compared to economic models. Many cheaper models are also available online.

Things to consider when selecting a Vacuum Cleaner

Type of Vacuum Cleaner: Select the type of Vacuum Cleaner based on your cleaning requirements - where do you intend to use it, how often do you plan to use it, and what type of debris you want to clean. Choose one that offers multiple functions and uses. Canister type can be used for cleaning of floors, mats, carpets, under furniture, staircase etc. and Handheld type for cleaning crevices, corners, inaccessible parts of upholstery. Upright Vacuum Cleaners are best suited for cleaning large open floors/carpet areas but not convenient to clean under sofas or furniture, while Stick types are the light weight version of upright Vacuum Cleaners. Robotic Vacuum Cleaners are battery operated, rechargeable, fully automatic Vacuum Cleaners which move over the floor space on their own to clean it. They are extremely easy to use and hands-free.

Type of Flooring: Most Vacuum Cleaners clean tiled floors well. For carpets, you need a Vacuum Cleaner with roller brush and strong suction power.

Suction Power: Check the suction power (AW- Air Watts) of the Vacuum Cleaner which determines

its cleaning ability. 180–200 AW suction power is considered good for Upright Vacuums which can effectively clean carpets and large floors. Cordless Vacuum Cleaners with 80–100 AW suction power are good for compact spaces, quick cleanups and spot cleaning. Canister Vacuum Cleaners with higher suction power of around 300 AW are useful for a wide variety of floor surfaces including tiles or carpets.

Power and capacity: A Vacuum Cleaner with higher capacity or power rating (wattage) will give stronger suction and better cleaning experience.

Energy efficiency: Efficiency of a Vacuum Cleaner depends on various factors like power rating, suction power, filtration system and design of cleaning attachments. A Vacuum Cleaner with a power rating of 1000W is useful for most homes. However, choose a Vacuum Cleaner based on its suitability to your usage and ease of use.

Size, weight and portability: Select a Vacuum Cleaner which is not very heavy and has large swivel wheels for easy movement. A lighter, more portable Vacuum Cleaner (Upright, Stick type) is easier to use when cleaning large areas. Handheld models can weigh from 2 to 6 kgs. Weight of Stick, Canister and Upright models is from 5 to 10 kgs but these have wheels for easy movement.

Power cord: If the power cord is long, you don't have to constantly change plug points while using it. Normally, a 4 to 7 meters long power cord is available. Battery operated Vacuum Cleaners are cordless type and easy to handle.

With Bag or Bagless: A Vacuum Cleaner has either a dust bag or a dust container/bin. Disposable bags hold more dust and can be replaced with a new one when full. Dust containers can be emptied and cleaned when full and reused. So, select a bagless or bin model as per your budget and convenience. It is good to buy a Vacuum Cleaner with a reusable dust bag which can be cleaned and reused.

Dust Collection Capacity: Check the size of the dust collecting container or bag. A larger capacity means you do not have to stop frequently to empty or change the bag. Vacuum Cleaners with indicators to warn for bag/container full of dust are useful.

Filters: All Vacuum Cleaners are fitted with more than one filter. Dust/dirt collected through vacuuming is filtered through a primary filter. A Secondary filter further cleans the air before it goes to the most sensitive parts of the machine. Premium models come with HEPA filters. A good filter system helps to trap small particles, reduce allergens and improve air quality.

Corded or Cordless: Cordless Vacuum Cleaners are lighter, easy to handle and make less noise. But they are not very powerful and the dust container needs to be emptied frequently. Corded Vacuum Cleaners like Canister type offer consistent suction power. You can complete your cleaning in one go as recharging is not necessary.

Accessories and Attachments: A Vacuum Cleaner can be used to clean floors, cobwebs, upholstery, curtains, shelves, computer keyboard, car, etc. with

the right accessories. Check what accessories and attachments are included and if they fulfil your requirements. Also check for ease of attaching the different parts.

Noise level: Check the noise level. If your Vacuum Cleaner is too noisy then you will not be able to use it whenever needed.

Warranty and Customer support: Look for a model with longer warranty period. Select a brand which has local service centres.

For regularly cleaning your home it is better to select a corded model with high power performance, good filters and one which makes less noise which can fulfil most of your cleaning needs. Check that it has multiple attachments, which can help clean difficult to reach places. It should be easy to use and should not require frequent replacement or emptying of the dust collection bag. Cordless/handheld Vacuum Cleaners are good for quick and specific cleaning needs.



Steam Iron

Steam irons are versatile and can handle nearly every fabric type. Steam irons give a smoother press. They can remove tough wrinkles on fabrics like denim and linen and are also effective on delicate fabrics like silk and polyester.

Different types of steam irons have their own set of features and choosing the right one is very important. Choose a steam iron which is safe, affordable and user friendly.

Some features to look for when buying a Steam Iron

Fabric Setting/Temperature Control Knob: Look for adjustable temperature settings to suit various fabrics for preventing damage.

Indicating Lamp: A visual indicator signals when the iron is heated and ready for use.

Automatic Temperature Cut Off: Ensures safety by shutting off the iron if it overheats, preventing fire hazards.

Intelligent Sensors: Energy-efficient sensors automatically turn off the iron when not in use, reducing energy costs.

Base Plate/Soleplate: Opt for a durable soleplate material like stainless steel for even heat distribution and resistance to scratching.

Soleplate Vents/Holes: Iron with more vents facilitates better wrinkle removal.

Variable Steam Setting: Allows customization for different fabric types.

Steam Burst Function: Helps to remove stubborn creases effectively, especially on thick fabrics.

Anti-Scale/Anti-Calcium/Self-Cleaning Feature: Prevents iron damage by removing calcium and other minerals from water and prevents steam vent clogging.

360-Degree Swivel Cord: Enhances manoeuvrability and prevents tangling of cord while ironing.

Large Water Tank: Provides longer steam generation, reducing the need for frequent refills.

Shape and Design: Look for a comfortable, ergonomic design that aids in easy ironing.

Warranty: Opt for a longer warranty period. Ensure that a user manual is included with the iron.



Oxygen Concentrator

Oxygen concentrators gained importance as a household equipment during the Covid pandemic. There are two types of oxygen concentrators -continuous flow type and pulse dose or intermittent flow type. Each one is best suited for a specific type of patient. To keep blood oxygen levels in an acceptable range, it is essential to take advice from a doctor/ respiratory therapist and/ or oxygen specialist for specific oxygen requirement of an individual. After the ideal dose is prescribed by doctor, oxygen concentrator unit can be selected to fit the patient's need.

Continuous flow type - If patient requires 4 to 5 litres/minute of oxygen. It provides the same flow of oxygen per minute.

Pulse dose /intermittent flow type - If the patient needs lesser quantity of oxygen, i.e., 2 litres/minute or less. It pulses oxygen when patient inhales and does not deliver oxygen continuously.

Look for the following while buying:

- Model of a trustworthy brand.
- A model which is portable and easy to maintain. Filters, humidifier bottle and nasal cannula need to be often cleaned properly.
- Check for oxygen purity level that the machine provides ($93 \pm 3\%$ is preferable).
- Sound level while using (Less than 50 dB is preferable).
- Outlet pressure (0.04 to 0.07 MPa is preferable).
- Check the flow rate capability. Every patient requires different flow rates, therefore take the doctor's recommendation.
- Timer and automatic shut off feature for ease of adjusting time and flow rate.
- Flow rate indicator and flow regulator.
- Auto temperature control. (Temperature inside the machine should be maintained up to 50°C).
- Power Consumption - Oxygen concentrators need continuous electricity supply ranging from 100W to 600W. It is better to opt for a concentrator that has the lowest power consumption.
- Capacity of backup battery.
- Warranty (2 to 3 years).
- Red light indicator to avoid causing harm to patient. It typically means 'Low Oxygen Purity' or 'Needs Service' depending on model.
- Additional number of air intake filters and molecular sieve beds.



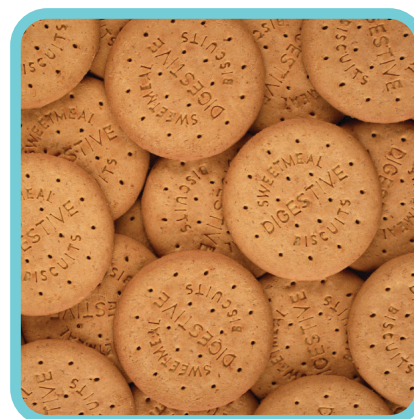
FOOD PRODUCTS

Food plays an essential role in providing energy for life sustenance, for movement and warmth, and for growth and repair of tissues as well as to satisfy our taste buds. This is why the food we consume should be healthy, nutritious, safe, and hygienically prepared.

According to Food Safety and Standards Authority of India Guidelines (Expert Group consultation on Fat, Sugar and Salt), a product containing sugar more than 22.5g/100g can be considered as 'high sugar'. If the salt mentioned on the label is more than 1.5g/100g (0.6g sodium) it is considered 'high salt' and for fat, 17.5g/100g is considered high. Ensure that any food item you buy has values that are lower than these recommended values.

We bring you buying suggestions for some routinely consumed food items:

- Bread
- Tomato Ketchup
- Digestive Biscuits
- Namkeens
- Packaged Snacks
- Ready to Make Instant Food Mixes
- Pickles
- Mawa
- Packaged Fruit Juices
- Aamras
- Plant based dairy substitutes



Bread

Bread is consumed widely due to its convenience, affordability, and versatility of use. Many bread varieties like white, whole wheat, multigrain, etc. are available. It is important to read labels to know the nutritional composition of bread for making informed dietary choices.

Types of bread

- **White Bread:** Made from refined wheat flour (maida). The soft bread is utilized for sandwiches.
- **Whole Wheat Bread:** Made, principally, from whole wheat flour (atta). FSSAI requires 75% atta in whole wheat bread. It has more minerals and fiber than white bread, making it healthier.
- **Brown Bread and Wheat bread:** FSSAI requires minimum 50% whole wheat flour or atta in brown and wheat loaves. The ingredient list usually lists additional colours that make brown bread brown.
- **Multigrain Bread:** Contains various grains (e.g. wheat, oats, jowar, bajra, millets) and seeds (e.g. flaxseeds, sunflower seeds). FSSAI requires 20% non-wheat grains in such breads.

Tips for buying bread - Bread package labels should include ingredients and nutrition information.

- Verify fibre content on the label. Fiber-rich bread is healthier. Prefer bread with 3g/100g dietary fibre.
- Verify protein content on label. Choose bread with at least 7g/100g protein.
- Celiac illness or gluten sensitivity patients should seek gluten-free breads.
- Check presence of sugar and sweeteners if diabetic.
- Check the nutritional label for sodium content. Avoid bread without a salt content label if you have high BP or are watching your salt intake.
- Commercial breads contain preservatives to extend shelf life. Choose healthier handmade breads without these additives.
- Whole wheat roti/chapati is a healthier alternative to bread due to its fibre content. The minerals, fibre, and digestive health benefits are higher.
- For weight management, wholewheat bread with higher fiber content may be beneficial.
- Whole wheat bread provides longer-lasting energy than white (maida) bread.
- Market-available brown bread may contain colouring chemicals for a brown tint. See how much whole wheat flour (atta) is on the label. It may not necessarily be whole wheat just because it's brown.



Tomato Ketchup

One of the most favourite and widely consumed condiments in India is Tomato Ketchup or Tomato Sauce, whether it is in homes or in restaurants. It is an essential accompaniment to samosas and chips etc. and children eat it even with roti or bread. It is liked for its sweet and spicy taste. It is easily available, affordable and has a long shelf life. Tomato sauce or ketchup is also available in small packages including single serve pouches.

Buying tips to suit your taste and health needs

- Never avoid reading the label. When choosing a tomato ketchup or sauce, make sure that you look at ingredients and nutritional values. Compare different brands before buying.
- Check the ingredients list. Make sure that all the ingredients are natural, not synthetic.
- For a good ketchup, look for key ingredients - tomato paste, essential spices, vinegar and sugar. Compare brands and choose one with more tomato content and less sugar.
- Check the label for caloric value. It is recommended to select a brand with less than 100 calories per 100g of ketchup/sauce.
- Compare brands and select one which has low sodium (salt) content. Also see that it is low in fat.
- Tomato ketchups/sauces come in many varieties – regular, no onion, no garlic, sweet and spicy etc. Some may be higher in salt or sugar than others. Choose according to your taste preference but always read the nutrition label to make sure that you are not compromising your health with a high salt or high sugar variant.
- Some brands make various health claims such as low fat, low sugar, or no added sugar etc. Always check the Nutritional Facts table to know the actual sugar content, as the claims can be very misleading specially for people with Diabetes.
- Check for storage instructions. Some products may need refrigeration after opening, while others can be stored at room temperature. Store the product according to the manufacturer's recommendations to ensure freshness.
- Always check the 'expiry date' or 'use before date' while purchasing.
- If you use tomato ketchup and tomato sauce frequently, buying in bulk/large package may save you money. Just ensure you have proper storage for larger quantities.
- Before trying a new brand or product, read reviews from other consumers to get an idea of the taste and quality.



Digestive Biscuits

Digestive biscuits are commonly believed to be healthier than other regular biscuits. This is a myth created by aggressive advertising. Digestive biscuits should be avoided for a healthy diet. Many other healthier snack options are available, which should be considered instead of the high sugar and fat Digestive biscuits.

- Consider buying snacks such as low fat and sugar biscuits, toast or khakhras etc.
- People suffering from diabetes, high blood pressure and heart ailments should refrain from buying Digestive biscuits, though these are often recommended for them.
- Prepacked foods are required to display on their label the per 100g content of sodium (salt), sugar and fat. They should also display the serving size and the per serve amounts of sodium, sugar and fat as percentage contributions to RDA. Always check that the Salt/Sodium content is mentioned on the packet label Nutritional Information table. Refrain from buying biscuits (and other food products) where salt content is not mentioned.
- Chose a brand with minimum sugar content. In a survey conducted by us, one brand mentioned maximum sugar content on the label as 20.1g/100g. This means that eating 100g of those particular Digestive biscuits would almost

fulfil your recommended daily sugar requirement and no more sugar should be consumed that day for a balanced diet.

- Chose a brand with a low-fat content. One brand showed maximum 23.4g/100g fat content as per label, meaning that 100g of such digestive biscuits almost fulfils your day's requirement of fat. Therefore, it is not a healthy food choice.
- 7 out of the 8 brands surveyed by us had more than 17.5g/100g fat content making them a high fat product. Avoid buying a biscuit brand (or any other food product) which can be classified as a high fat product.
- If possible, consider preparing snacks at home as you can control the quantity and quality of ingredients.

What is a high fat, sugar, salt (HFSS) food

According to Food Safety and Standards Authority of India (Expert Group on Fat, Sugar and Salt) Guidelines, a food product containing -

- sugar more than 22.5g/100g is considered as high sugar product
- salt more than 1.5g/100g (0.6g sodium) is considered high salt product
- fat more than 17.5g/100g is considered high fat product



Namkeens

Namkeens may not be the healthiest snack option but some caution while purchasing can ensure that you select a brand which is least harmful to your health.

Some points to keep in mind when buying Namkeens

- Check the best before date when buying a namkeen packet. It is preferable to buy a packet as close to manufacturing date as possible to ensure freshness.
- Check Nutritional Information as namkeens contain high salt, sugar, and oil (fat). Ensure that the salt, sugar, fat content is mentioned on the nutritional information table on the label.
- Avoid buying namkeen in which salt, sugar and fat content is not mentioned. Consuming salt and sugar without knowing can have adverse health effects. Not mentioning sugar can be misleading to diabetics, whereas not mentioning salt can be misleading to people suffering from high blood pressure and hypertension.
- Compare the salt content in varieties available.

Choose a namkeen which contains lesser amounts of salt/sodium.

- Similarly, compare sugar and fat content also to ensure that you buy namkeen which has lesser amounts of sugar and fat.
- There are many varieties of namkeens and snacks which can be considered instead of the high salt, sugar and fat namkeens such as Khatta Meetha.
- Low fat or roasted namkeens, toast or khakaras should be considered if suffering from diabetes, high blood pressure and heart ailments. However, you should always check label for salt and fat content in all packaged snacks, even in roasted varieties.

Consider making namkeens or snacks at home so that you can control the quantity of salt, sugar and fat used. You are also assured of the quality and freshness of the snacks you consume. However, regular consumption of namkeens should be restricted.



Packaged Snacks

Most of us get lured to indulge in snacks that marketers promote as ‘baked’, ‘healthy’, ‘roasted’ or ‘not fried’ to make them sound healthy. But do we ever stop to wonder if what we are eating and giving to our children is really as healthy as we think it is?

Be cautious while buying packaged snacks, especially while buying roasted/baked snacks. You may be looking forward to guilt free snacking but that may not be true unless you make an informed choice by reading the nutrition information on label. Consuming high salt, sugar and fat without knowing can have adverse health effects.

- Always check Label Nutritional Information to see what it contains. Ensure that it is not high in salt, sugar or fat and has the least preservatives and artificial colours and flavourings.
- Do not be misled by claims such as baked, roasted, contains less oil etc. Always read the label for contents before buying.
- Avoid buying if nutritional information is not mentioned on the label.

- At times sodium may be mentioned instead of salt. Per day Recommended Dietary Allowance (RDA) of salt (sodium chloride) is not more than 6g/day (1 teaspoon of salt). 1g salt contains approximately 400mg sodium.
- Some products may mention names of various sugar substitutes like maltodextrin. Avoid buying if you are confused about the information given.
- Compare the salt, sugar and fat content in varieties available. Choose a variant which contains lesser amounts of salt/sodium, sugar and fat.
- Check the best before date when buying. Buy a packet as close to manufacturing date as possible to ensure freshness.

Consider making snacks at home so that you can control the quantity of salt, sugar and fat used. You are also assured of the quality and freshness of foods you consume.



Ready to Make Instant Food Mixes

Ready to Make Instant Food Mixes have become very popular as you can make many food items easily and quickly without spending hours in the kitchen to prepare homemade foods/snacks. They also turn out to be cheaper than buying similar readymade food items from the market. However, you have to exercise caution while purchasing instant food mixes to ensure that you select a brand which is least harmful to your health.

- Check the best before date when buying. Buy a packet as close to manufacturing date as possible to ensure freshness.
- Check Label Nutritional Information to ensure it is not high in salt, sugar or fat and has the least preservatives and artificial colours and flavourings.
- Avoid buying if the salt, sugar, or fat content are not mentioned on the label. Consuming salt, sugar and fat without knowing can have adverse health effects.
- At times sodium may be mentioned instead

of salt. Some products may mention names of various sugar substitutes. Avoid buying if you are confused about the information given.

- Compare the salt, sugar and fat content in varieties available. Choose a variant which contains lesser amounts of salt/sodium, sugar and fat.
- Consider making such food items at home from scratch so that you can control the quantity of salt, sugar and fat used. You are also assured of the quality and freshness of foods you consume.
- Regular consumption of processed foods like ready to make instant food mixes should be avoided.

Be aware of what you are consuming. What you perceive to be a healthy food choice may not actually be so healthy. Our test findings show that foods prepared from instant mixes can often be quite high in salt, sugar and fat. E.g. Khaman mixes were found to be quite high in sugar and fat, while Upma mixes were high in salt and fat.



Pickles

Pickles are made with different seasonal vegetables and fruits with addition of oil, salt and spices, often to last the whole year or more. The spicy, sweet, sour taste makes them a meal-time favourite. With modern day busy lifestyles, more and more people are now buying pickles from the market.

Are pickles healthy for us? They have a high sodium (salt) content, as salt is added for seasoning as well as preservation. Excessive salt in pickles increases our dietary salt intake which can lead to many ill health effects.

How much salt does pickle contain

On studying the label information of a dozen major pickle brands available in the market, it was found that all had salt content of at least 11.8g/100g. For pickles having 11.8g/100g salt, one tablespoon of pickle (approximately 15g) will contain about 1.8g salt. So, if you have a serving of 1 tablespoon pickle with both meals, you will be consuming about 3.6g

salt, which is 60% of your RDA of 6g/day. Along with other meal items and snacks etc., this will substantially increase your salt intake.

Tips for buying pickles

- Always check if salt content is mentioned in the Nutritional Information Table on the label. Do not buy pickles that don't mention the amount of salt/sodium.
- Avoid buying a pickles brand that has salt close to 10g/100g or more. If you have to consume it, restrict your consumption, as many other everyday foods that we eat contain salt/sodium.
- Compare salt content of available brands and buy the one with lowest salt/sodium content.

Eat pickles in moderation for preserving your health and avoid frequent consumption. It is best to consume homemade pickles as you can control the amount of salt used. Moreover, they are free of preservatives which may also contain sodium.



Mawa

Celebrations during the festival season are incomplete without indulging in a variety of Indian sweets. Buying sweets from stores/mithai shops is on the rise but there are many households that still prefer to make sweets at home, often with store-bought mawa or khoya. However, many times the store-bought mawa may be adulterated or contaminated.

It is a huge health risk to consume sweets made from adulterated mawa. We show you ways to identify whether the mawa you are buying is adulterated or not.

Common adulterants in mawa

- Vanaspati is added to increase the fat content.
- Starch is added to increase the solid content to falsely increase the mass of mawa.
- Formalin is a preservative added to increase the shelf-life. Formalin can cause damage to the kidney, liver and can cause asthma and cancer.
- Blotting paper is added to give a thick and rich texture to mawa.
- Coal tar dyes are sometimes added for colour.
- Flour, suji or semolina are added to increase mass.

Quick checks before buying

- Check the manufacturing date before buying mawa. The shelf life of packaged mawa should not be more than 2 days.
- A simple test to check mawa at the time of purchase itself is to check its taste and texture. Pure, fresh and unadulterated mawa has an oily and grainy texture. It leaves a trail of grease when rubbed on the palm and tastes slightly sweet.
- Before buying, take a pinch from the stock and rub it on your palm. Taste it, pure mawa should taste slightly sweet. If it tastes odd, it is probably adulterated.
- Check for rancidity (sour/foul odour) by smelling it before buying. It will also taste sour.
- Check for appearance for foreign matter like black particles and colour.
- Avoid buying mawa which is off-coloured or has a greenish tinge (due to fungus infestation).



Packaged Fruit Juices

It is commonly believed that fruit juices are healthy. It may not be easy or affordable to drink fresh fruit juice frequently but packaged juices are available everywhere and quite affordable. These are widely consumed for breakfast or as refreshment and even given for nutrition to people who have been sick.

But, do you know what they contain and if they are beneficial for health? Read package nutrition label carefully before buying to choose wisely. You should always check the nutrition information on pack to know if it is a high fat, sugar or salt food.

Label checks before buying

- Choose a packaged fruit juice variety with low sugar or no added sugar. Look for healthier beverage options.
- Check for presence of any food additives like preservatives, artificial colours and flavouring agents to help you avoid them as much as possible. Opt for juices with lesser or no preservatives.
- Do not be misled by terms like no sugar, sugar-free or no added sugar. Fruit juices are naturally sweet and high in sugar.
- Check the label to see if any unhealthy sugar substitutes or artificial sweeteners have been added while claiming 'no added sugar'.
- Always check the manufacturing/expiry date or best before date to ensure freshness. Make sure to consume before expiry date.

- Check the packaging. If the tetrapak is puffy or leaking, it indicates spoilage or contamination.
- Check for the serving size and number of servings in the package. Compare it to your own serving size to know how much quantity, sugar and calories you are actually consuming. The nutrition information is given for one serving or per 100ml.
- Packaged fruit juice may claim to have 'natural fruit flavour'. It may mean that it contains artificial flavour designed to taste like fruit and not actual fruit.

Tips for consuming packaged juices

- Always look out for the total sugar content (natural and added sugars) on the label.
- Do not consume packaged juice directly from packet. Pour in a transparent glass and check for any visible contamination, haziness, foul odour or uneven coloration.
- Once opened, the package should be stored in refrigerator to avoid spoilage.
- Avoid consuming packaged fruit juices to limit your sugar intake as they are often high in sugar.
- Do not consume or serve packaged fruit juices to your children very often.



Aamras

Aamras, literally meaning mango juice, is widely consumed at part of daily meals in western India. It is made from pulp or puree of ripe mangoes with sugar usually added to sweeten it. It is often served at celebrations and weddings too. Ready to eat Aamras is sold in shops (mithai shops, dairies etc.) and is also available in pre-packaged tins.

A simple guide for buying ready-to-eat Aamras

- Always purchase Aamras from a reputed shop or brand and that having good packaging.
- Buy from a popular shop to ensure freshness and quality.
- When buying packaged Aamras, check for all labelling information on the pack like MRP, packed date, best before, batch no., manufacturing address etc.
- Check label for presence of artificial flavours and/or colours.
- If the best before date shows a long shelf life, it indicates that it has preservatives. Avoid such brand.
- Aamras having no label information should be avoided.
- If the label does not specify contents (by weight or percentages) you will not know the amount of sugar or additives. Thus, consumption of such brands should be avoided.
- Check to see if what you are buying is Aamras or mango milkshake.
- Avoid buying loose Aamras. If you still buy loose Aamras, check for its consistency. If it is too thin and runny, it may be adulterated with water. Contaminated water is a major reason behind water borne diseases such as typhoid, jaundice and diarrhea.
- Brightly coloured loose Aamras must be avoided as it contains synthetic food colours.
- If there is a slight bitter aftertaste after eating the Aamras, it may contain artificial sweeteners.
- Look for zero added sugar variety if available to control your sugar intake. You can always add sugar at home.

Aamras should preferably be made at home so that you can ensure purity, control added sugar and avoid artificial colour/flavour. Make sure that you buy naturally ripened mangoes as mangoes ripened artificially by using chemicals may lead to serious health conditions.



Plant-based substitutes for dairy products - Milk Analogues

Plant-based substitutes do not replicate in entirety the nutrient content and quality of milk. However, each one of these plant substitutes has its unique application and addresses a variety of health issues like allergies, lactose intolerance and other health conditions, and even ethical reasons.

Consider these while choosing a plant-based milk alternative.

- If you are on a low-fat diet, choose a brand with the lowest amount of fat per serving like soy or almond milk.
- Choose a plant-based milk with fewer ingredients like additives and preservatives. If possible, try making your own almond, cashew or coconut milk in your kitchen.
- In order to replace nutrients that you would otherwise get from dairy milk, read the nutrition facts when you are buying a non-dairy alternative. Pick one that is fortified with calcium, vitamin D, and vitamin B12.
- Buy unsweetened if you can. Flavoured plant-based substitutes (like chocolate, vanilla, elaichi flavoured) can contain a lot of sugar and artificial flavours. These are not recommended to be consumed on a daily basis. These vegan substitutes are available as beverages or in powder form and are completely devoid of dairy, milk solids or whey powders.
- Choose your non-dairy substitute based on your needs. If you are looking to replace dairy milk in your coffee, you can try oat, soy or cashew milk. If you want something that is similar to the taste of cow's milk, you can use pea milk if available.
- None of the plant-based alternatives match nutrients present in cow's milk entirely. The closest is calcium fortified soy milk, but it is still lower in potassium and other nutrients. Read the nutritional label for complete information before buying.
- If the choice to consume non-dairy plant-based alternatives is not based on allergies, lifestyle decisions or dietary restrictions, you can ensure adequate nutrition from a combination of dairy and non-dairy milk in consultation with your physician.
- Additives like glycerol, lactic acid, mono or diglycerides may be from animal fat although their plant-based substitutes are also available. If they are plant-based, it would be specifically mentioned on the label.



OTHER ITEMS

Today there is hardly any device which does not run on battery and more particularly AA and AAA size cells or batteries. Be it a TV remote or toys, such batteries are used to power these devices.

Sunscreens are another widely used product. Extreme sun exposure can lead to early ageing of the skin and sometimes elaborate skin care routine may also not help unless you use a good sunscreen.

Other items that have come into regular use, specially after the COVID Pandemic, are Face Masks, Hand Sanitizers and Steam Inhalers.

And we all know Indians' liking for glittering Gold Jewellery.

Here we bring for you Buying Guides for:

- AA and AAA batteries
- Face Masks
- Sunscreens
- Hand Sanitizers
- Steam Inhalers
- Gold Jewellery



AA and AAA Batteries

Everything runs on batteries today - from TV and AC remotes, clocks, toys, to weighing scales and blood pressure monitors. While there are several types of batteries that have different uses, single use AA and AAA are the most commonly used batteries. Given below is a guide to help you on how to buy these batteries.

How to select AA and AAA dry cell battery

Slot size in device: AAA batteries are thinner and shorter than AA batteries. Choose battery as per slot size. Incorrect battery size may lead to malfunctioning of the device.

Sustainable choice: Alkaline type batteries work longer than zinc carbon ones and are less prone to leakage. Check the label to find out which type a battery is. You can buy zinc carbon type batteries for clocks, weighing scales, TV remotes, and blood pressure monitors which require less power to operate. However, buying alkaline batteries is a sustainable choice for all devices.

Price: Zinc carbon batteries cost Rs. 10 to Rs. 15 per piece. Alkaline batteries are costlier (Rs. 25 to Rs. 40 per piece) but they last longer.

Chinese batteries: Avoid buying Chinese batteries (they are marked 'Made in China' or 'Made in PRC'). Although cheap (Rs. 5 to Rs. 7 per piece),

they do not last long and may even damage your device.

ISI mark: Purchase batteries marked with ISI mark, expiry date and zero percent use of mercury, cadmium and Lead (eco-friendly), as they are safer and give better life.

Tips for proper battery care and use

- Store batteries in their original packaging, in a dry place and at normal room temperature until ready to use.
- Don't store batteries or battery power devices in very warm places, as high temperature can reduce battery performance and may cause leakage.
- Leaking batteries should be removed from the device (by wearing hand gloves) and properly disposed. Clean the battery contacts with cotton cloth dipped in soapy water or vinegar. Allow the contacts to dry.
- Don't mix new and old batteries or batteries of different brands or types (zinc carbon and alkaline) in the same device. This may result in battery leakage causing personal injury or damage to device.
- Don't leave batteries in a device if you are not going to use it for a while



Face Masks

Face masks are one of the effective ways to arrest the spread of coronavirus and other cold/flu viruses.

Wearing face masks outside of homes had been made mandatory for the public during the coronavirus pandemic and not doing so attracted fines. People were advised to wear face masks and using scarves, dupatta or home-made masks was also considered good enough to keep oneself safe from the virus.

Types of face masks

Type	Things to note
N-95 mask	Primarily meant for healthcare workers or those who are in direct contact with infected persons.
Triple layer medical mask	These are generally disposable masks that can work effectively for 6 hours.
Cloth mask	These should be made of thick material or be multiple layered.
Bandana, Scarf or Handkerchief	They should be folded in such a way that there are multiple layers of cloth to cover the mouth and nose.

Things to remember when making a mask at home

Layering: Make sure that there are multiple layers of fabric in your mask as that reduces the chances of viral particles passing through the mask. It is suggested to add a layer of filter, like coffee filter or tissue paper to act as an added protection layer.

Type of fabric: Use a fabric that is tightly woven and thick so that the virus cannot pass through it. The easiest way to judge if the fabric is good for a mask or not is to hold it up against light. If it is tightly woven, less light will pass through it and therefore it is a good option. The fabric should also be soft and breathable since you will be using it for a long duration.

Fit: A mask should fit you well, which means it should effectively cover your nose and mouth. It should sit snugly on your face and allow comfortable breathing.

Care and disposal: Store the cleaned masks separately in a dry place. They should also be kept in a separate clean bag within your handbag for wearing. To discard a used mask, put it in a garbage bag and place it in the dustbin with a cover.



Sunscreens

An easy-to-follow buying guide for sunscreens is presented here.

Consider your skin type

Different sunscreens have different ingredients. Do a test to see if your skin is allergic to a certain sunscreen by applying a little product on your skin at the back of your ear lobe.

Choose gel, cream or water-based sunscreen that suits your skin type. For dry skin, choose a moisturising sunscreen with suitable oil-based contents like silicones, glycerine etc. Avoid alcohol-based products. In case of oily skin, use a gel-based or water-based sunscreen. For sensitive skin, always go for fragrance-free products and opt for mineral ones.

Sun Protection Factor (SPF)

Sunscreens are classified by an SPF (Sun Protection Factor) number which refers to their ability to deflect UVB rays. The SPF rating is an indicator of the amount of time needed to burn sunscreen-protected skin vs. unprotected skin.

Use a sunscreen that has minimum SPF 15. It is your best bet and you can apply it on a daily basis. If you are spending extended time outdoors, especially in the hot afternoons, use a sunscreen with higher SPF like SPF 30. SPF is an indicator of UVB coverage only, not UVA. So, look for sunscreen that extends UVA coverage (uva++ or uva+++).

UVA and UVB

The sunlight that reaches us is made up of two types of harmful rays - long wave ultraviolet A (UVA) and short-wave ultraviolet B (UVB). UVA rays penetrate deep into the skin. Unprotected exposure can lead to premature skin aging and wrinkling. UVB rays will usually burn the superficial layers of your skin. They may cause skin cancer. The intensity of UVB rays vary by season, location and time of day, with 10AM to 2PM being the peak hours.

Check for sunscreen that physically blocks the light

There are two types of sunscreens, physical and chemical. Physical or Mineral Sunscreens, usually stay on the surface of the skin and mainly block the rays. The chemical ones get absorbed into your skin and dissipate UV rays. Physical sunscreens have zinc oxide or titanium dioxide, which are naturally occurring minerals that are gentle on the skin and should be preferred.

Check for expiry

Always check the packaging for expiry date. If you use an outdated product, it will not give you adequate protection. Sunscreens usually remain effective at original strength for up to three years.



Hand Sanitizer

We bring you a guide to help you make an informed choice when buying hand sanitizer to protect you from common infections.

- Buy a sanitizer which contains at least 60-95% of either Ethyl Alcohol (Ethanol) or Iso-Propanol. According to experts, sanitizers with 60-95% alcohol content are most effective in combating coronavirus.
- Do not buy a non-alcohol based sanitizer, as it is not effective for COVID.
- Hand sanitizers for corona protection should ideally contain Ethanol - 80% (v/v). Look for this information on label.
- Check for manufacturing/expiry date on the sanitizer bottle. Hand sanitizers are considered to have a 3 years' shelf life. Alcohol slowly evaporates with time, so an older/expired sanitizer may become ineffective at fighting germs.
- Avoid sanitizers with antibacterial agents like Triclosan or Benzalkonium chloride, excessive use of which can develop antibiotic resistance, especially among children. They also cannot protect effectively against the virus. Check the label and avoid sanitizers containing these chemicals.
- Avoid scents and fragrances in your hand sanitizers. They may contain chemicals called Phthalates, which are endocrine disruptors and can cause hormonal imbalance.

Do's & Don'ts for hand sanitizer use

- Use sanitizers only when soap and water is not available. Sanitizer use kills good bacteria and can affect the balance of beneficial microbes in the body.
- Children should specifically be encouraged to wash hands with plain soap and water and use sanitizers only when soap and water is not available.
- Avoid using sanitizers on greasy hands as they do not work on grease/dirt and grime and will lead to accumulation of more germs.
- Avoid eating immediately after using hand sanitizer as you may ingest its chemicals. Wait at least 30 seconds.
- To use, take sanitizer in the palm of your hand and rub it for 20 seconds till it dries completely.
- Do not use it near fire, e.g. in the kitchen. It is easily flammable. Also do not keep a leaking bottle in the car.
- Do not store it above 40.5°C, e.g. do not store or leave hand sanitizer in a car during summer.
- Keep away from reach of children. If ingested, it can cause alcohol poisoning in children.
- Carefully analyse its contents – If it contains Methanol, a toxic substance, it can have disastrous side effects.



Steam Inhaler

Steam Inhalers (vaporizers) are widely used by people to clear nasal and throat congestion. They do not cure infections but can provide temporary relief to cold and flu like symptoms and help you breath easily.

What to check when buying steam inhalers

- Since steam inhalers are made from plastic, check for proper thickness so that it does not heat up while using.
- The lid should have proper threads for easy fitting and removal.
- Check that the power cable is not too thin and is at least two meters long.
- Power plug should have proper contact pins for safety.
- It should have wide base for vibration free operation.
- Ensure that the machine does not have loose wires to avoid accidents.
- Check that there is water level marking (minimum, medium and maximum).

How to use electric vaporizers safely

- Keep the inhaler on a steady table or flat surface. Avoid using it in hand or on shaky surface.
- Fill the jar with water above the minimum level.
- Avoid using hard /salty water.
- Screw the lid to the jar and plug the machine properly.
- Do not open the lid or tilt the machine during use.
- Do not add more water in the pot without switching off the device.
- Keep the eyes closed to avoid irritation.
- Empty after use and refill with fresh water. Daily cleaning, rinsing and drying is important as mineral deposits may occur with use.



Gold Jewellery

There is often doubt about the quality and purity of the jewellery purchased even when it is purchased from renowned shops. It is even more so in semi-urban and rural areas where goldsmiths often defraud customers by selling substandard precious metal products.

Here we answer your questions about gold jewellery buying, Hallmarking, how to check purity and what you should be careful about while buying gold.

What should you do when buying Gold jewellery

- Refuse to buy jewellery that does not carry the Hallmark with 6-digit HUID. The BIS Hallmark has three markings - BIS logo, purity and fineness, and the 6-digit alphanumeric HUID.
- Insist on checking the HUID with a magnifying glass and verify its authenticity on the BIS Care App. Check the purity of gold, the name of the Assaying centre and the Jeweller shown for the HUID.

- Hallmarking is available for gold jewellery of six levels of purity - 14, 18, 20, 22, 23 and 24 carats. Ensure that you are getting the jewellery of the purity you asked for.
- Ensure that the receipt mentions the HUID number and it matches the HUID marked on the jewellery.

How to check if the gold you are buying is real and pure

You can login to the BIS Care App and enter the marked 6-digit HUID to check the purity and other details of gold. Verify the purity of gold, the name of the Assaying centre and the Jeweller shown for the HUID.

How can you check that the Hallmarking is authentic

When purchasing gold, check that the BIS Hallmark has three markings - BIS logo, purity and fineness, and the 6-digit alphanumeric HUID. Use the “Verify HUID” feature in the BIS Care mobile App to verify the authenticity of the Hallmarked gold jewellery item.



About CERC

Consumer Rights Protection and Justice for consumers have been the focus of Consumer Education and Research Centre (CERC) right from its inception in 1978. Each activity undertaken is backed with in-depth research by our Advocacy and Testing Laboratory teams. CERC is India's only Consumer Rights Organisation that provides 360 degree services to the consumer in terms of Education, Empowerment and Protection.

A broad range of activities are undertaken in the organization – grievance redressal through mediation and litigation, consumer education and awareness building through various publications and outreach activities, testing and analysis of consumer products in our in-house product testing laboratories, advocacy for laws and regulations that better protect consumers, as well as a number of projects executed in various areas pertinent to consumer protection and empowerment. Promoting environmental awareness, energy conservation and sustainable consumption are also major activity areas in CERC.

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CERC Team

CEO

Anindita Mehta

Associate Editors

Rashmi Goyal & Anusha Iyer

Staff Writer

Tithi Bhandari

Consumer Education and Research Centre

Email - cerc@cercindia.org

