

Magazine

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# by ASIAN BURG

*Thrive. Nourish. Connect*  
Community Edition – March-2026

## Eid Then and Now

From Crescent Moons to Digital Greetings A Cultural Journey Across Faith, Festivity and Fast-Changing Times

## Japan Lifestyle

Daily Habits Shape Longevity and Disease Resistance

## Women's Health in the Modern World

Understanding Hormonal Disorders, Nutrition and Lifestyle Interventions

## Spring in Asia

Festivals of Joy Color and Togetherness

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# Reflection On Our First Edition

The inaugural edition of the Asian Burg Ramadan Recipe Book – Community Edition marked an important step in our mission to promote healthier living during the blessed month of Ramadan. Designed as a practical guide for the community, the publication combined expert nutritional insight with accessible guidance on balanced Sehri and Iftar practices, hydration and responsible dietary habits during fasting. By bringing together health awareness and everyday cooking, the magazine aimed to help readers observe Ramadan with both spiritual devotion and physical well-being.

The response to the first edition was deeply encouraging. Within a short period, the magazine reached over thousands of readers worldwide engaging a diverse global audience through the Asian Burg digital platform. With its blend of expert advice and 30+ nutritious recipes, the publication translated health knowledge into practical daily routines for families. This remarkable engagement reaffirmed the growing need for credible, accessible health information and strengthened our commitment to continue building Asian Burg as a platform for knowledge, community awareness and healthier living.



# Editorial Note

This issue of Asian Burg brings together voices from nutrition, agriculture, public health and lifestyle to explore a simple but urgent question: how our daily choices are shaping the health of tomorrow.

Across the world, conversations about food are changing. Rising lifestyle diseases, climate pressures on agriculture, ultra-processed diets and changing family structures are redefining how people eat and live. South Asia stands at a unique crossroads. We possess one of the richest culinary traditions in the world yet we simultaneously face malnutrition, micronutrient deficiencies and growing obesity. This paradox demands reflection as well as action.

The articles in this edition move beyond trends and headlines. They examine hidden hunger, evolving dietary patterns, community health initiatives and the science behind nutrition and wellbeing. Experts, practitioners and researchers contribute perspectives that connect academic knowledge with everyday life reminding us that health policy begins at the household table.

This issue also highlights an important reality: sustainable health cannot be achieved by

institutions alone. Governments, researchers, communities and families must work together. Traditional wisdom and modern science are not opposing forces rather if combined thoughtfully, they offer powerful solutions for healthier societies.

Asian Burg was founded with a simple vision to create a platform where information is credible, accessible and socially meaningful. In an age of overwhelming digital noise, knowledge must not only inform but also guide. Through this magazine, we aim to encourage informed choices, responsible consumption and a renewed respect for food as a foundation of public wellbeing.

As we approach Eid and a season of renewal and gratitude, this edition invites readers to pause and reflect on balance between tradition and modernity, convenience and nutrition, growth and sustainability. Health is not shaped by a single decision but by consistent awareness practiced every day.

We hope this issue serves not only as reading material but as a conversation starter within homes, classrooms and communities.

Because healthier societies begin with informed minds and conscious choices.

## Community

# Feedback

“

“The Asian Burg Ramadan Recipe Book is a thoughtful initiative that combines nutritional science with practical dietary guidance. It helps families approach fasting with balance, awareness, and healthier food choices.”

**Khawaja Imran Nazir**

Primary & Secondary Healthcare Department,  
Government of the Punjab (P&SHD)

“

The recipes and health advice presented in this edition are both practical and easy to follow. It is encouraging to see a platform promoting healthier Ramadan habits for families.”

**Munir Hussain Chopra**

Head of Nutrition wing,  
Punjab Food Authority

“

Public awareness about nutrition during Ramadan is often overlooked. This publication fills that gap by presenting reliable health information in a simple and accessible manner for the wider community.”

**Prof. Dr. Hengyi Xu**

State Key Laboratory of Food Science  
and Technology, Nanchang University, China

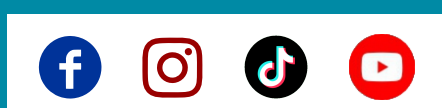
# About Asian Burg

Asian Burg is an independent digital media and knowledge platform dedicated to food, health, agriculture, nutrition, culture, lifestyle and public awareness. The platform aims to bridge the gap between scientific knowledge and everyday living by presenting credible, research-based and socially relevant content in an accessible format.

Founded with the vision of promoting informed choices and healthier communities, Asian Burg focuses on evidence-driven storytelling, expert opinions, public health awareness and cultural perspectives on food and society. The platform brings together nutritionists, academicians, policy practitioners, development professionals and young writers to create meaningful dialogue around contemporary challenges.

Through its digital magazine, social media platforms, website and multimedia content, Asian Burg engages an audience that includes students, professionals, researchers, health conscious, readers and community as a whole across the globe.

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# Hidden Hunger

## *The Missing Nutrients Problem*

*Dr. Akhtar Surani*

Despite abundant food supplies in many parts of the world, billions of people suffer from a silent but devastating form of malnutrition known as hidden hunger. This condition occurs when diets provide sufficient or even excessive calories but fail to deliver essential vitamins and minerals required for normal growth, immunity and metabolic function. Often invisible and overlooked, hidden hunger quietly undermines health, human development and economic productivity across the globe.



## What Is Hidden Hunger?

Hidden hunger refers to deficiencies of critical micronutrients such as iron, iodine, vitamin A, zinc, calcium and several B-vitamins. These nutrients play indispensable roles in immune defense, cognitive development, energy

metabolism and hormonal regulation. Unlike overt starvation, hidden hunger may not produce immediate or obvious physical signs allowing deficiencies to persist undetected while causing long-term and often irreversible damage to health.



# How Widespread Is the Problem?

Recent global nutritional analyses reveal alarming inadequacies in micronutrient intake worldwide:

- **Iodine:** Approximately 68% of the global population consumes less iodine than required.
- **Iron:** Around 65% of people fail to meet adequate dietary iron intake.
- **Vitamin E and Calcium:** Nearly 66–67% of individuals consume insufficient amounts.
- **Other micronutrients:** Riboflavin, folate, vitamin C and zinc also show widespread deficiencies across populations.

Among the most vulnerable groups, anemia largely driven by iron deficiency affects an estimated 42% of children under five years of age and about 40% of pregnant women globally. These figures highlight the scale of a crisis that persists even where food availability is not limited.

## Who Is Most Affected?

Hidden hunger disproportionately affects low and middle-income countries particularly in regions such as South Asia and sub-Saharan Africa. However, it is not confined to resource-poor settings. In high-income countries, micronutrient deficiencies increasingly arise from diets dominated by ultra-processed and nutrient-poor foods.

Children, adolescents, women of reproductive age and older adults are especially vulnerable. In several regions, more than half of preschool-aged children and nearly two-thirds of women of reproductive age suffer from deficiencies of iron, zinc or vitamin A placing them at higher risk of illness, developmental delays and reduced quality of life.



## Consequences of Hidden Hunger

The consequences of hidden hunger are profound and far-reaching:

- **Impaired growth and cognitive development:** Micronutrient deficiencies during early life negatively affect brain development, learning capacity and educational achievement.
- **Increased disease susceptibility:** Poor micronutrient status weakens immune defenses, increasing vulnerability to infections and prolonging recovery.
- **Maternal and infant health risks:** Deficiencies of iron and folate raise the risk of maternal complications, preterm birth and low birth weight.
- **Economic and social costs:** Reduced productivity, increased healthcare expenditure and intergenerational cycles of poor health slow national development and economic progress.



## Micronutrient Deficiency in Energy-Excess Diets

Hidden hunger can also exist alongside obesity. Individuals may consume excessive calories yet remain deficient in essential micronutrients, a condition often described as being “overfed but undernourished.” Diets dominated by ultra-processed foods are typically high in refined carbohydrates, unhealthy fats and added sugars but low in vitamins, minerals and dietary fiber.

As a result, obese individuals frequently lack key nutrients such as iron, zinc, vitamin D, vitamin B12, magnesium and calcium. These deficiencies impair metabolic regulation, weaken immunity, disrupt hormonal balance and promote chronic inflammation. This nutritional imbalance contributes to fatigue, insulin resistance and poor appetite control perpetuating weight gain while

masking underlying malnutrition. Obesity, therefore, does not indicate nutritional adequacy but often conceals a state of hidden hunger driven by poor diet quality rather than insufficient food intake.





## What Can Be Done?

Addressing hidden hunger requires coordinated, multi-level strategies:

- **Food fortification**, such as iodized salt and fortified flour, to restore missing nutrients at population level.
- **Nutrition education** that promotes dietary diversity, emphasizing fruits, vegetables, legumes, whole grains and appropriate animal-source foods.
- **Targeted supplementation** for high-risk groups, particularly children, adolescents and pregnant women.
- **Food system reforms** to improve access to affordable, nutrient-dense foods while reducing reliance on ultra-processed products.

Hidden hunger remains one of the most underestimated threats to global health. It affects billions of people, including those who are not calorie-deficient and silently erodes physical health, cognitive potential and economic resilience. Combating hidden hunger demands a

shift in focus from calories alone to **diet quality and nutrient adequacy**. Only through integrated policies, improved food environments and sustained public awareness can we ensure diets that truly nourish populations and support lifelong health.





کچھ اس  
میں نیا  
کنڈم سے بنا!



# Tea or Coffee

## *Which One Is Better for You?*

*Dr. Muhammad Rizwan Tariq*



## Introduction

Tea and coffee rank among the most widely consumed beverages in the world, woven deeply into social rituals, daily routines and cultural identities across continents. While both drinks are celebrated for their invigorating effects and rich flavors, they differ substantially in chemical

composition, physiological impact and health implications. This article delves into the science behind tea and coffee, examining caffeine content, antioxidant profiles, metabolic effects and personalized recommendations based on health goals and sensitivities.



## Caffeine: Quantity Matters

Caffeine, a natural stimulant, is perhaps the most recognized compound in both tea and coffee. It primarily acts on the central nervous system, enhancing alertness, reducing fatigue perception and improving cognitive performance.

Coffee generally delivers significantly more caffeine per serving than tea. This higher dose typically translates into a more pronounced wakefulness effect, which many habitual coffee drinkers rely on to jump-start their day.

# Physiological Impact of Caffeine

Caffeine exerts its primary effect by blocking adenosine receptors in the brain, a neurotransmitter that promotes sleep and relaxation. By inhibiting adenosine, caffeine reduces feelings of fatigue and increases neuronal activity. Secondary effects include enhanced release of dopamine and norepinephrine, which contribute to improved mood and reaction time.

However, caffeine sensitivity varies widely among individuals due to genetic differences in metabolism, primarily influenced by the *CYP1A2* gene, as well as habitual consumption patterns. While moderate intake (up to 400 mg/day for most healthy adults) is generally considered safe, excessive intake can lead to jitteriness, insomnia, palpitations, and anxiety.



## Tea's Antioxidants Profile

Beyond caffeine, both tea and coffee are rich in bioactive compounds with antioxidant properties that neutralize harmful free radicals and support cellular health.

### Tea's Polyphenols

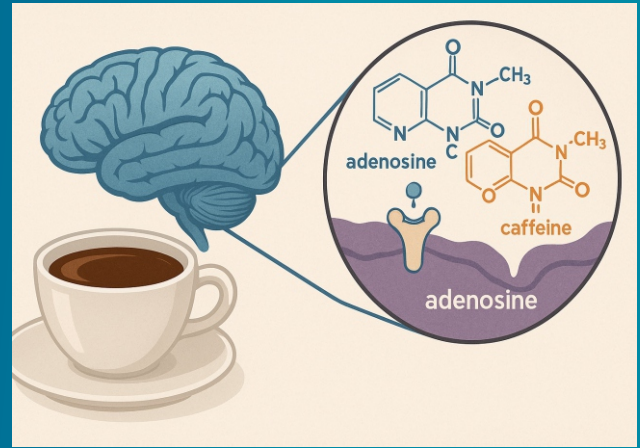
Tea, especially green tea, is abundant in polyphenols, particularly catechins such as epigallocatechin gallate (EGCG). These compounds have been investigated for anti-inflammatory, anti-atherogenic (preventing artery plaque formation), and anti-cancer effects. Concentrated green tea extract supplements have been linked to rare liver injury

- **Green Tea:** Richest in catechins, less oxidized.
- **Black Tea:** Contains theaflavins and thearubigins, products of oxidation, which still exhibit antioxidant activity, though different in profile from green tea catechins.



## Coffee's Antioxidant Profile

Coffee's antioxidant strength comes chiefly from chlorogenic acids, which may influence glucose metabolism and inflammatory pathways. Coffee consumption has been associated with lower risks of type 2 diabetes, Parkinson's disease, liver disease, and certain cancers in different studies, although mechanisms remain complex and multifactorial.



## Bioavailability and Health Meaning

Antioxidants differ not just in quantity but in how effectively the body absorbs and utilizes them. EGCG, for example, has lower bioavailability but is highly reactive once absorbed. Coffee's chlorogenic acids are bioavailable, but their clinical significance remains an active field of research.

## Metabolic Effects and Weight Management

Both tea and coffee can influence metabolism, but through slightly different pathways.

## Thermogenesis and Fat Oxidation

Caffeine itself increases metabolic rate modestly by stimulating thermogenesis, the body's heat production and mobilizing fatty acids for fuel. Beyond caffeine:

- **Green Tea Extracts:** Synergistic effects of caffeine and catechins have been linked to increased fat oxidation during exercise.
- **Coffee:** May enhance energy expenditure, though results vary with dose and individual response.

It's important to note that while acute metabolic boosts occur, long-term weight loss requires a consistent energy-balanced diet and that physical activity remains a cornerstone.

## Who Should Choose What? Personalizing the Pick

Choosing between tea and coffee isn't merely a matter of taste; it may hinge on health goals, sensitivity patterns, and lifestyle.



### Choose Tea If:

- **Caffeine sensitivity:** Tea provides a lower, more gradual caffeine release, leading to gentler stimulation with less jitteriness.
- **Calming antioxidants:** Tea contains L-theanine, which promotes relaxation and may reduce caffeine-related anxiety.
- **Digestive comfort:** Tea, especially green tea, is often easier on the stomach than the more acidic profile of coffee.

### Choose Coffee If:

- **You need stronger cognitive stimulation:** Coffee's higher caffeine content is beneficial for alertness and tasks requiring sustained attention.
- **You're targeting specific metabolic or performance benefits:** Many athletes favor coffee for pre-workout alertness.
- **You enjoy the ritual and flavor intensity:** Personal preference influences habitual intake and long-term satisfaction.

## Considerations and Contraindications

- **Pregnancy:** Most guidelines recommend limiting caffeine to 200 mg/day. Lower-caffeine options (e.g., green tea or decaf coffee) may be preferable.
- **Heart rhythm sensitivities:** People who notice symptoms after caffeine should discuss their intake with a clinician.
- **Anxiety disorders:** High caffeine consumption can worsen anxiety. Tea, particularly herbal and decaffeinated options, may be more suitable.
- **Sleep Disruption:** The average half-life of caffeine is about 5 hours, but it can vary widely, roughly 1.5 to 9.5 hours, and can be longer in pregnancy.





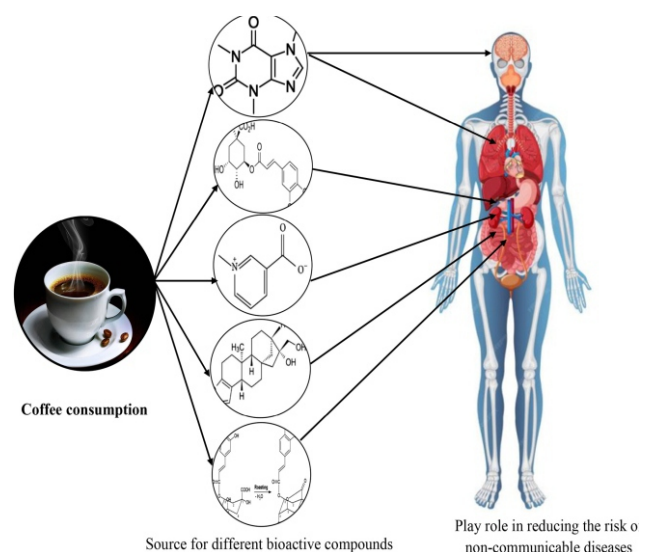
## Beyond the Cup: Preparation and Additives Matter

The health profile of tea and coffee is also influenced by how they're prepared:

- **Brewing time:** Longer steeping increases caffeine and polyphenol extraction in tea.
- **Roast level:** While there is some evidence suggesting that darker coffee roasts may have slightly less caffeine than lighter roasts, the difference is typically small. Caffeine content can vary based on factors such as bean type, brewing method, and serving size.
- **Additives:** Sugar, cream, and flavored syrups can significantly alter caloric and metabolic effects.

Tea and coffee both offer unique scientific benefits and small potential drawbacks. Tea excels in antioxidant diversity and gentle stimulation, while coffee delivers robust caffeine and a distinctive antioxidant profile, with emerging links to reduced chronic disease risk.

There is no universal “better” beverage; the optimal choice varies with individual goals, health status, and taste preferences. Whether you savor a delicate green tea at dawn or a bold espresso mid-morning, understanding the science allows you to enjoy these global favorites with awareness and balance.



**Disclaimer:** People who are pregnant or very caffeine-sensitive or have reflux, anxiety, or sleep problems should get individualized advice.

# Opus

## Dil Walon ki CHOCOLATE



SCAN TO  
EXPLORE

# Fast Food Culture

## *How Ultra-Processed Diets Are Fueling Obesity and Chronic Disease*

*Surraya Farooq*

***A scientific exploration of diet transitions, metabolic harm and global health consequences***

In the 21st century, food culture has shifted dramatically. Once rooted in minimally processed staples like legumes, grains, vegetables and fresh meats, global diets are now increasingly dominated by ultra-processed foods packaged

snacks, ready-to-heat meals, sugary drinks and industrial fast foods engineered for taste and convenience. This shift isn't just a matter of culinary change, it is a major public-health crisis.



### **What Are Ultra-Processed Foods?**

The term ultra-processed foods (UPFs) refer to edible products created mostly or entirely from industrial ingredients, with little resemblance to whole foods. They commonly contain refined starches and sugars, hydrogenated or refined fats,

emulsifiers, preservatives, colors and synthetic flavors many of which have no meaningful nutritional benefit. While the NOVA classification system remains the standard method for defining such foods, researchers emphasize that it is not processing alone, but the combination of high energy density, hyper-palatability and addictive qualities that makes ultra-processed foods problematic in human diets.

# The Rise of UPF in Global Diets

Today, more than half of the calories consumed in many Western nations including roughly 55 % of the total calories in U.S. diets come from ultra-processed foods, especially among children and young adults. This global dietary shift parallels rising rates of obesity and chronic disease leading scientists to investigate whether it's coincidental or causal.

## Ultra-Processed Foods and Obesity: A Consistent Link

One of the most robust conclusions in nutrition science over the past decade is the strong association between UPF intake and excess weight. Meta-analyses of multiple observational studies show that high UPF consumption is associated with:

- **Greater odds of overweight and obesity**, including abdominal adiposity with risk increases of 36 %–55 % compared with diets low in UPFs.
- **Every 10 % increase in daily energy from UPFs correlates with higher odds of overweight and obesity** suggesting a dose-response relationship.

Mechanistic evidence strengthens these observations. Controlled feeding trials demonstrate that individuals consuming ultra-processed diets spontaneously ingest significantly more energy, often several hundred additional calories per day than those eating minimally processed whole-food diets even when total macronutrient composition is carefully matched. This excess intake leads to rapid weight gain over relatively short periods.



The explanation lies in food design. Ultra-processed products are deliberately engineered to be highly palatable while being low in dietary fiber and essential micronutrients that normally promote satiety. In addition, these foods disrupt key hormonal regulators of appetite and fullness and encourage unconscious overeating. Compared with whole foods, this combination amplifies energy intake and weakens the body's natural appetite control mechanisms.

## Beyond Weight: Chronic Disease Risk

While obesity itself is a serious health issue, the harms of ultra-processed foods extend well beyond weight gain.



## 1. Metabolic and Cardiovascular Disease

Evidence is mounting that ultra-processed food diets are linked with increased risk of:

- Type 2 diabetes
- Hypertension (high blood pressure)
- Dyslipidemia (unhealthy blood lipid profiles)
- Cardiovascular diseases including heart attack and stroke

These associations persist even after adjusting for body mass index and lifestyle factors and suggest that ultra-processed foods may directly influence metabolic health. Systematic reviews show a consistent link between high ultra-processed food consumption and elevated cardiometabolic risk through altered glucose and lipid metabolism systemic inflammation and oxidative stress which are biological processes central to chronic disease.

## 2. Early Death and Multi-Organ Effects

Long-term population studies indicate that diets high in ultra-processed foods are linked with increased all-cause mortality including deaths due to cardiovascular disease and other chronic conditions. Published research has shown that such diets may raise overall mortality by more than 20 percent when comparing the highest with the lowest consumers.

## 3. Cancer and Other Conditions

Emerging epidemiological research suggests potential associations between ultra-processed food consumption and certain cancers especially colorectal cancer as well as digestive disorders chronic renal failure dementia and mental health conditions such as depression. Some cohort studies show that regular consumption of ultra-processed foods increases the risk of cellular changes and precancerous lesions over time.



## Biological Mechanisms

The ways in which ultra-processed foods harm health are multifold.

### Nutrient Imbalance

Unlike whole foods ultra-processed foods are typically high in added sugars unhealthy fats and sodium and low in fiber vitamins and phytonutrients essential for metabolic regulation.

### Disrupted Satiety

Low fiber content and high glycemic load promote rapid digestion and blood sugar spikes leading to repeated hunger and overeating a cycle that promotes weight gain.

### Inflammation and the Gut

#### Microbiome

Additives emulsifiers and nutrient-poor compositions may alter gut microbiota promoting chronic inflammation a root cause of many diseases including insulin resistance cardiovascular disorders and neurological conditions.

## Synthetic Chemicals and Packaging Agents

Certain preservatives artificial sweeteners and packaging residues may have endocrine-disrupting effects although research in this area is still evolving.

## Societal Costs and Policy Challenges

The health impacts of fast-food culture extend beyond individual bodies. Rising rates of obesity and chronic disease impose tremendous economic burdens on healthcare systems worldwide. Experts warn that without structural changes including food policy reform marketing restrictions and public health education the problem may continue to worsen.

Governments and public health agencies are experimenting with interventions ranging from stricter nutritional labeling to excise taxes on sugary drinks and junk foods. Litigation efforts have also been launched against major food corporations for their role in promoting harmful products.

## What Can Be Done?

While global food systems will not transform overnight individuals and communities can act now by:

- Prioritizing whole minimally processed foods such as fruits vegetables legumes whole grains nuts and lean proteins
- Reading ingredient lists and opting for foods with few recognizable ingredients
- Limiting sugary drinks and snack items which are disproportionately represented among ultra-processed foods
- Supporting policy initiatives that promote healthier food environments in schools and workplaces

The modern fast-food culture built on ultra-processed diets is not simply a matter of taste or convenience. It is a profound public health issue tightly linked to global epidemics of obesity and chronic disease. Scientific evidence from epidemiological studies-controlled trials and mechanistic research consistently shows that



ultra-processed foods increase total caloric intake promote metabolic dysfunction and elevate the risk of conditions ranging from diabetes and heart disease to certain cancers and premature death. Addressing this challenge requires both personal dietary shifts and systemic changes in how food is produced marketed and regulated.





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سب اچھا ہے!

# Yoga as Preventive Healthcare

## *Strengthening the Body, Balancing Hormones and Reducing Stress*

*Dr. Zubia Shafaat*



In an era marked by rising rates of non-communicable diseases, mental health disorders and lifestyle-related illnesses, healthcare systems worldwide are increasingly shifting focus from treatment to prevention. Among various preventive strategies, yoga has emerged as a scientifically supported, low-cost and accessible

intervention that addresses physical health, hormonal balance and psychological well-being simultaneously. Once viewed primarily as a spiritual or fitness practice, yoga is now recognized as a complementary preventive healthcare tool endorsed by global health authorities including the World Health Organization.

### **Yoga: More Than Physical Exercise**

Yoga is a mind–body discipline that integrates physical postures (asanas), controlled breathing (pranayama) and mental focus or meditation (dhyana). Unlike conventional exercise, yoga works on multiple physiological systems at once including the musculoskeletal, endocrine, nervous, cardiovascular and immune systems. This integrative nature makes it uniquely effective in preventive healthcare.

Scientific research increasingly demonstrates that regular yoga practice improves functional capacity, metabolic regulation, emotional resilience and stress adaptation all of which are central to disease prevention.



## Strengthening the Body and Improving Physical Resilience

From a physical health perspective, yoga enhances muscular strength, flexibility, posture and balance. Weight-bearing and isometric postures help preserve bone density, reducing the risk of osteoporosis particularly in older adults and postmenopausal women. Improved joint mobility and muscle tone lower the risk of musculoskeletal injuries and chronic pain conditions such as lower back pain and arthritis.

Yoga has also been shown to improve cardiovascular fitness by reducing resting heart rate, improving circulation and enhancing oxygen utilization. These adaptations contribute to lower blood pressure and reduced cardiovascular risk making yoga a valuable preventive strategy for heart disease.



## Hormonal Balance and Endocrine Health

One of yoga's most significant preventive benefits lies in its influence on the endocrine system. Chronic stress, irregular sleep and sedentary lifestyles disrupt hormonal regulation, contributing to conditions such as insulin resistance, thyroid dysfunction, menstrual irregularities and metabolic syndrome.

Yoga postures that gently compress and release endocrine glands combined with regulated breathing help modulate hormone secretion.

Research indicates that yoga practice can improve insulin sensitivity, regulate cortisol levels and support thyroid function. In women, yoga has shown benefits in managing symptoms of polycystic ovary syndrome (PCOS), premenstrual syndrome (PMS) and menopausal transitions by stabilizing reproductive and stress hormones.

By restoring hormonal equilibrium, yoga addresses root causes rather than symptoms and reinforces its role in preventive healthcare.



## Stress Reduction and Nervous System Regulation

Stress is a major driver of modern disease, contributing to hypertension, diabetes, depression, immune dysfunction and accelerated aging. Yoga directly targets the stress response by regulating the autonomic nervous system.

Slow breathing and meditative practices activate the parasympathetic nervous system, reducing excessive sympathetic activity associated with chronic stress. This results in lower cortisol levels,

improved sleep quality, reduced anxiety and enhanced emotional regulation. Neuroimaging and physiological studies show that yoga improves vagal tone and heart rate variability, both markers of resilience and long-term health.

By reducing stress at a biological level, yoga helps prevent a wide range of stress-related disorders before they manifest clinically.



## Mental Health and Cognitive Well-Being

Beyond physical and hormonal benefits, yoga plays a preventive role in mental health. Regular practice improves mood, attention and emotional stability while reducing symptoms of anxiety, depression and burnout. Unlike pharmacological interventions, yoga carries minimal risk and promotes self-regulation and mindfulness.

Studies indicate that yoga enhances neurotransmitter balance including increased gamma-aminobutyric acid (GABA) activity which is associated with calmness and reduced anxiety. These effects make yoga particularly valuable in preventive mental healthcare especially in high-stress populations.

## Immune Function and Inflammation Control

Chronic low-grade inflammation underlies many non-communicable diseases including cardiovascular disease, diabetes and autoimmune disorders. Yoga has been shown to reduce inflammatory markers and oxidative stress while supporting immune regulation.

By improving sleep, reducing stress hormones and enhancing circulation, yoga creates an internal environment that supports immune resilience. This positions yoga as a preventive tool not only for chronic disease but also for maintaining overall vitality and resistance to illness.

## Public Health Relevance and Accessibility

One of yoga's greatest strengths as a preventive healthcare strategy is its accessibility. It requires minimal equipment, can be adapted for all ages and physical abilities and is culturally acceptable across diverse populations. As healthcare costs rise, yoga offers a cost-effective and scalable intervention that can be integrated into schools, workplaces, community centers and primary healthcare settings.

Recognizing its preventive potential, international health bodies and national governments are increasingly promoting yoga as part of lifestyle medicine and wellness programs.

## Conclusion

Yoga represents a scientifically supported and holistic approach to preventive healthcare. By strengthening the body, regulating hormones, calming the nervous system and reducing stress-induced inflammation, yoga addresses the underlying drivers of many modern diseases. Its integration into daily life has the potential to reduce disease burden, enhance quality of life and shift healthcare from reactive treatment to proactive prevention.

As evidence continues to grow, yoga stands not merely as a wellness trend but as a vital component of sustainable preventive healthcare for the modern world.



# Hydration Beyond Sugar Drinks

## *Homemade Lemonade and Natural Electrolytes for Optimal Balance*

*Jaweria Nazeer*

Hydration is fundamental to human health, yet modern hydration practices are increasingly dominated by sugar-sweetened beverages, flavored drinks and commercial electrolyte formulas that often contain excessive sugar, artificial additives and unnecessary calories. While these products are marketed as essential for energy and performance, growing scientific

evidence suggests that they may contribute to obesity, insulin resistance and dental and cardiovascular problems when consumed regularly. In contrast, simple homemade beverages and natural electrolyte sources offer a safer, more effective approach to maintaining fluid and mineral balance.

### **Understanding Hydration and Electrolyte Balance**

Hydration is not solely about water intake. The body requires an appropriate balance of electrolytes, including sodium, potassium, magnesium and chloride, to maintain fluid distribution, nerve transmission, muscle contraction and blood pressure regulation. These minerals are lost daily through sweat, urine and respiration and their replacement becomes

particularly important during hot weather, physical activity, illness, pregnancy and fasting. According to the World Health Organization, optimal hydration should support physiological needs without excessive sugar or unnecessary additives. However, many commercial hydration drinks contain sugar levels comparable to soft drinks, undermining their health benefits.





## The Problem with Sugary Hydration Drinks

Sugar-sweetened beverages marketed as sports or energy drinks often provide more calories than electrolytes. Regular consumption can lead to rapid blood glucose spikes, followed by insulin surges that promote fat storage and metabolic stress. In children and sedentary adults, these drinks are a documented contributor to weight gain, dental caries and increased risk of type 2 diabetes.

Moreover, artificial colors, preservatives and flavor enhancers may burden the liver and kidneys without offering any nutritional advantage. For most individuals who are not endurance athletes, these drinks are unnecessary and counterproductive.

## Homemade Lemonade as a Functional Hydration Drink

Homemade lemonade, when prepared without refined sugar, is one of the most effective and affordable hydration solutions. Fresh lemon juice provides potassium, vitamin C and natural citric acid, which enhances mineral absorption and supports digestion.

A basic formulation of water, freshly squeezed lemon juice, a small pinch of salt and optional natural sweeteners such as honey or dates creates a balanced beverage that replenishes fluids while supplying essential electrolytes. Unlike commercial drinks, homemade lemonade allows full control over sugar content and ingredient quality.

Scientific studies show that citrus-based beverages improve hydration adherence due to palatability while avoiding the metabolic burden of high sugar intake. Vitamin C further supports immune function and reduces oxidative stress, particularly during heat exposure.





## Natural Electrolyte Sources from Foods

Electrolyte balance does not require synthetic powders or bottled drinks. Many whole foods naturally provide the minerals needed for optimal hydration:

- **Coconut water** is rich in potassium and magnesium, making it effective for mild dehydration.
- **Fruits such as oranges, bananas and watermelon** contribute potassium and water simultaneously.
- **Vegetables like cucumber, tomatoes and leafy greens** provide hydration along with sodium and magnesium in natural ratios.
- **Yogurt and fermented foods** support hydration while improving gut health and mineral absorption. These foods hydrate the body while also delivering fiber, antioxidants and micronutrients that sugar drinks lack.

## Electrolytes, Hormones and Energy Balance

Proper hydration influences hormonal regulation, including aldosterone and antidiuretic hormone, which control fluid balance and blood pressure. Excess sugar intake disrupts these systems by promoting insulin spikes and increased sodium retention, contributing to bloating and hypertension.

Natural electrolyte drinks maintain hydration without triggering hormonal stress responses. This is particularly important for individuals with diabetes, hypertension, kidney disease and hormonal disorders, as well as for pregnant and lactating women.



## Hydration in Hot Climates and Fasting States

In hot climates and during fasting periods, dehydration risk increases due to fluid loss and limited intake windows. Homemade electrolyte drinks consumed during non-fasting hours can prevent fatigue, headaches, muscle cramps and dizziness without overwhelming the digestive system.

Unlike sugary beverages, natural hydration solutions restore balance without increasing thirst or causing gastrointestinal discomfort.

## Public Health and Preventive Nutrition Perspective

From a public health standpoint, promoting natural hydration strategies can significantly reduce sugar consumption at the population level. Encouraging homemade beverages, traditional drinks and water-rich foods aligns with preventive nutrition goals and helps combat rising rates of obesity and metabolic disease.

Schools, workplaces and healthcare programs can play a critical role by discouraging sugary drinks and educating communities on simple, evidence-based hydration practices.

## Conclusion

Hydration should support health, not compromise it. While commercial sugar-laden drinks dominate the market, they are neither necessary nor beneficial for most people. Homemade lemonade and natural electrolyte sources offer a physiologically sound, affordable and culturally adaptable solution for maintaining optimal hydration.

By shifting away from sugar drinks and embracing natural hydration, individuals can protect metabolic health, support hormonal balance and enhance overall well-being, making hydration a powerful tool in preventive healthcare rather than a hidden risk factor.

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# Pesticides on Our Plate

## *Invisible Residues and Their Long-Term Impact on Human Health*

*Mohsin Bhatti*



Agriculture is the backbone of Pakistan's economy, with Punjab serving as the country's primary food basket. To protect crops from pests, weeds and diseases, pesticides are widely used during cultivation. While these chemicals play a

role in securing food production, their excessive, improper, or unregulated use has raised serious concerns about invisible pesticide residues entering the food chain and their long-term effects on human health.

## **Pesticide Use in Punjab and Pakistan**

Pakistan relies heavily on chemical pesticides in the cultivation of major crops such as wheat, rice, cotton, vegetables, fruits and sugarcane. Commonly used categories include insecticides, herbicides and fungicides. In Punjab, intensive farming practices, multiple cropping cycles and pressure to maximize yields have led to frequent pesticide applications, often without adequate training or adherence to safety guidelines.

Policy data from provincial agriculture departments indicate that pesticides are sometimes applied in higher-than-recommended doses, at incorrect stages of crop growth or without observing prescribed waiting periods before harvest. Such practices significantly increase the risk of pesticide residues remaining on food when it reaches markets and households.

## Invisible Residues on Food

Pesticide residues are small quantities of chemicals that remain on or within food after harvesting, processing and storage. These residues are not visible, cannot be removed completely by washing and may accumulate over time through repeated dietary exposure.

Monitoring reports by food safety authorities in Pakistan have repeatedly detected pesticide residues on vegetables and fruits, particularly leafy greens, tomatoes, chilies, gourds, apples and citrus. While some residues fall within permissible limits, others exceed Maximum Residue Limits (MRLs) established under international food safety standards endorsed by the World Health Organization and the Food and Agriculture Organization.

## Health Effects of Long-Term Pesticide Exposure

Unlike acute poisoning, which produces immediate symptoms, chronic exposure to low levels of pesticide residues can silently affect health over years. Scientific research links long-term dietary exposure to pesticides with multiple health outcomes:

## Endocrine and Hormonal Disruption

Many pesticides act as endocrine-disrupting chemicals, interfering with hormone regulation. Chronic exposure has been associated with reproductive disorders, thyroid dysfunction, delayed puberty, menstrual irregularities and reduced fertility.

## Neurological and Cognitive Effects

Certain pesticides affect the nervous system and have been linked to memory impairment, reduced cognitive performance, developmental delays in children and increased risk of neurodegenerative disorders with prolonged exposure.

## Cancer Risk

Epidemiological studies associate long-term pesticide exposure with increased risks of certain cancers, including leukemia, lymphoma and hormone-related cancers. Repeated low-dose exposure through food is considered a significant contributor.





## Immune and Metabolic Effects

Pesticides can weaken immune response, increase oxidative stress and contribute to insulin resistance and metabolic disorders, particularly when combined with poor diet quality.

Children, pregnant women, agricultural workers and the elderly are especially vulnerable due to higher exposure levels or increased biological sensitivity.

## Regulatory Framework and Monitoring in Pakistan

Pakistan has a regulatory framework governing pesticide registration, import, sale and use, overseen by federal and provincial authorities. In Punjab, food monitoring and residue testing are carried out by the Punjab Food Authority in coordination with agriculture and laboratory services.

Additionally, environmental oversight is provided by the Pakistan Environmental Protection Agency, while agricultural extension services guide

farmers on pesticide application. Despite these systems, enforcement challenges remain due to limited laboratory capacity, fragmented supply chains and lack of farmer awareness.

Policy reports highlight gaps in farmer training, inadequate labeling comprehension, illegal sale of banned pesticides and weak compliance with pre-harvest intervals as key contributors to residue problems.

## High Risk, High Exposure in Punjab

Punjab's dense population, intensive vegetable cultivation and reliance on local markets increase public exposure to pesticide residues. Small-scale farmers often lack access to integrated pest management techniques and depend heavily on chemical solutions promoted by informal dealers.

Urban consumers, particularly those with limited purchasing power, are more likely to consume produce from unregulated sources, increasing the risk of exposure to unsafe residue levels.

## Reducing Risk: Policy and Public Health Interventions

To protect public health, experts recommend a multi-sectoral approach:

- **Strengthening farmer education** on correct pesticide use, dosage and waiting periods
- **Promoting integrated pest management (IPM)** to reduce chemical dependence
- **Expanding residue monitoring and laboratory testing capacity**
- **Strict enforcement against banned and counterfeit pesticides**
- **Public awareness campaigns** on washing, peeling and cooking practices that reduce surface residues
- **Encouraging organic and low-input farming models**, particularly for vegetables and fruits

Consumers can also reduce exposure by diversifying diets, avoiding excessive consumption of a single food item and preferring seasonal, locally sourced produce from trusted suppliers.



## A Hidden but Preventable Threat

Pesticides have become an integral part of modern agriculture in Punjab and Pakistan, but their invisible residues pose a long-term threat to human health if left unchecked. While pesticides are not inherently harmful when used responsibly, misuse during cultivation and weak regulatory enforcement amplify risks for the entire population.

Addressing pesticide residues requires stronger policy enforcement, improved agricultural practices and informed consumer choices. Ensuring food safety is not only an agricultural challenge but a public health imperative essential for protecting current and future generations.

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# Japan Lifestyle

## *Daily Habits Shape Longevity and Disease Resistance*

*Prof. Dr. Hengyi Xu*



Japan has one of the largest populations of centenarians, reflecting sustained health into very old age rather than merely survival with prolonged illness. The country is widely recognized as one of the healthiest and longest-living societies in the world, with many people reaching 100+ years in regions often referred to as “longevity hotspots” or Blue Zones. This remarkable lifespan is supported by a combination of factors, including a nutrient-rich traditional diet, regular physical activity, strong family and community bonds, high-quality

### **1. Life Expectancy and Healthy Aging: The Data**

Japan not only has a high life expectancy but also a high healthy life expectancy, meaning more years lived without disability or chronic illness. Reports from the World Health Organization show that Japan has:

- Lower premature mortality from

healthcare and low-stress living. According to global demographic and health statistics, Japan consistently ranks among the top countries for life expectancy, with an average lifespan exceeding 84 years. This longevity advantage is neither accidental nor solely genetic, a substantial body of evidence from epidemiology, nutrition science and public health research indicates that daily lifestyle practices play a central role in enhancing disease resistance and promoting healthy aging in the Japanese population.

- cardiovascular diseases
- Lower obesity rates compared to most high-income countries
- Reduced incidence of diet-related non-communicable diseases

Importantly, Japan also has one of the largest populations of centenarians, reflecting sustained health into very old age rather than survival with prolonged illness.

## 2. Dietary Patterns and Disease Prevention

The traditional Japanese diet is a cornerstone of longevity research. It is characterized by:

- High intake of fish and seafood (omega-3 fatty acids)
- Regular consumption of soy products (tofu, miso, natto)
- Abundant vegetables, seaweed and fermented foods
- Low consumption of ultra-processed foods and added sugars

Large cohort studies published in peer-reviewed journals show that adherence to Japanese dietary guidelines is associated with lower all-cause mortality and reduced cardiovascular risk. These dietary patterns contribute to:

- Improved lipid profiles
- Better insulin sensitivity
- Reduced systemic inflammation

Fermented foods further support gut microbiome diversity, which is increasingly recognized as a key factor in immune regulation and metabolic health.



## 3. Portion Control and Energy Balance

A culturally ingrained practice often cited in longevity research is moderation in eating. Traditional meals are smaller, visually balanced and emphasize variety over volume. This supports:

- Lower average caloric intake
- Reduced obesity prevalence
- Better long-term metabolic regulation

Scientific evidence suggests that mild calorie moderation without malnutrition activates cellular pathways associated with improved mitochondrial function and slower biological aging.

## 4. Physical Activity as a Daily Norm

Unlike exercise models that rely on gyms or structured workouts, physical activity in Japan is embedded into everyday life. Walkable neighborhoods, public transportation and active commuting result in:

- Higher daily step counts
- Improved cardiovascular fitness
- Lower sedentary time

Older adults often remain physically active well into later life, preserving muscle mass, balance and functional independence—key determinants of healthy aging.

## 5. Stress Regulation, Social Structure and Mental Health

Chronic stress is a known driver of inflammation, immune dysfunction and cardiometabolic disease. Japanese society emphasizes:

- Social cohesion and community belonging
- Respect for routine, order and predictability
- A sense of life purpose, often described through cultural frameworks of meaning and contribution

Population studies link strong social ties and psychological purpose with lower mortality risk, reduced cognitive decline and better immune resilience.

## 6. Inflammation, Immunity and Biological Aging

Comparative studies between Japanese and Western populations show that Japanese adults often exhibit:

- Lower levels of inflammatory biomarkers (e.g., CRP, IL-6)
- Better vascular function
- Slower progression of age-related metabolic disorders

These physiological advantages are closely tied to diet quality, physical activity, sleep patterns and stress regulation rather than genetic differences alone.

Notably, studies on Japanese populations living abroad demonstrate that when traditional lifestyles are replaced with Westernized diets and sedentary habits, the longevity advantage declines, reinforcing the role of environment and behavior.

## 7. Healthcare Access and Preventive Culture

Japan's universal healthcare system supports early diagnosis, regular health screening and preventive care. However, healthcare works in synergy with lifestyle not as a substitute for it.

Preventive behaviors such as:

- Routine health checkups
- Early dietary adjustments
- Active aging policies

help reduce disease burden before it becomes severe or costly.

### A System Built on Daily Choices

Japan's exceptional lifespan is the result of cumulative daily habits, not isolated interventions. Nutrition quality, portion control, habitual movement, social stability, stress moderation and preventive healthcare together create a biological environment that supports longevity and disease resistance.

For global audiences, the Japanese example offers a clear lesson: **long life is not achieved through medical advances alone but through consistent, sustainable lifestyle patterns practiced across the lifespan.**



# Adulteration in Milk and Its Adverse Health Effects

*Dr. Farhan Aslam*



## When a “Complete Food” Becomes a Health Hazard

Milk has long been regarded as one of nature's most complete foods. Rich in high-quality proteins, essential fats, carbohydrates, vitamins and minerals, it plays a foundational role in human nutrition—particularly for infants, growing children, pregnant women and the elderly. In many societies, milk is consumed daily and trusted implicitly as a symbol of purity and nourishment.

However, this trust is increasingly being undermined. Across many parts of the world, especially in developing countries, milk adulteration has emerged as a serious public health concern. The deliberate addition of foreign, inferior or harmful substances to milk often driven by economic gain compromises not only its nutritional quality but also consumer safety.

Studies have repeatedly shown that adulterated milk can act as a vehicle for toxic chemicals, pathogens and carcinogenic compounds, leading to both acute and long-term health consequences (Tipu et al., 2007; Javaid et al., 2009).

Milk adulteration may involve seemingly harmless practices, such as dilution with water, or far more dangerous interventions, including the addition of detergents, formalin, urea, hydrogen peroxide and other chemicals. In addition, biological contamination from microbes and toxins such as aflatoxins further exacerbates the risk. Understanding the types of adulterants, their purposes and their health impacts is essential for consumer awareness, regulatory action and food safety enforcement (Alonso et al., 2012).

## Why Milk Is Adulterated

Milk adulteration is largely motivated by economic incentives. By adding water or low-cost substances, suppliers can increase volume, improve visual appeal, mask spoilage or artificially enhance density and solids-not-fat (SNF) content. In poorly regulated supply chains,

these practices often go undetected, exposing large populations to unsafe food.

While some adulterants merely reduce nutritional value, others are highly toxic even in small amounts posing serious risks to organs such as the liver, kidneys, heart and nervous system.

# Major Milk Adulterants and Their Health Effects

## 1. Water

Water is the most common adulterant added to milk to increase volume and reduce cost (Francis et al., 2020). While dilution with clean water lowers nutritional value, the use of contaminated water is far more dangerous. It can introduce pathogenic bacteria, viruses and parasites, leading to diarrhea, typhoid, cholera and other gastrointestinal infections. Vulnerable populations including infants, the elderly and immunocompromised individuals are at highest risk (Bhuiyan & Noor, 2020).

## 2. Detergents and Soap

Detergents are added to emulsify water and oil, producing a thick, foamy, milk-like appearance (Singuluri & Sukumaran, 2014). These substances contain harmful chemicals such as sodium lauryl sulfate, phosphates and dioxane. Consumption can cause nausea, vomiting, diarrhea and irritation of the digestive tract. Long-term exposure has been associated with liver damage, endocrine disruption, cytotoxicity and cancer, particularly due to dioxane, a known carcinogen (Raturi et al., 2022; Cheng et al., 2010).





### 3. Starch

Starch is added to diluted milk to increase thickness and simulate higher fat content. Although starch is a common food ingredient, its unauthorized addition can cause digestive problems such as bloating, abdominal discomfort and diarrhea. For people with diabetes or starch intolerance, it may also disrupt blood glucose control (Singuluri& Sukumaran, 2014).

### 5. Formalin

Formalin is illegally added as a preservative to extend shelf life by inhibiting microbial growth. It is highly toxic and carcinogenic. Ingestion can cause severe abdominal pain, vomiting, kidney and liver damage and long-term cancer risk. Its use in food is strictly prohibited due to its extreme toxicity (Raturi et al., 2022).

### 7. Carbonates (Baking Soda)

Sodium bicarbonate is added to neutralize acidity in spoiled milk, giving it a fresh appearance. Excess intake can disturb the body's acid-base balance, leading to bloating, muscle weakness, alkalosis and kidney stress especially dangerous for individuals with renal or cardiac conditions.



### 4. Urea

Urea is used to enhance whiteness, increase SNF content and artificially mimic natural milk composition. It is also a component of so-called “synthetic milk.” Even small quantities can cause nausea, vomiting, gastritis and ulcers. Chronic exposure places excessive stress on the kidneys and may damage the liver and heart. Prolonged intake has also been linked to carcinogenic risks (Kandpal et al., 2012).

### 6. Hydrogen Peroxide

Used to delay spoilage, hydrogen peroxide can irritate the mouth and gastrointestinal lining, causing nausea, vomiting, ulcers and internal bleeding. Chronic exposure may result in oxidative stress and cellular damage (Lindmark-Månsson & Åkesson, 2000).

### 8. Hypochlorite

Hypochlorite compounds are sometimes used as disinfectants or preservatives. Ingesting them can cause gastrointestinal irritation, abdominal pain, vomiting and long-term liver and kidney damage. Children are particularly vulnerable to its toxic effects (Cheng et al., 2010).

## 9. Boric Acid

Boric acid is illegally used to extend shelf life. Acute exposure causes nausea, diarrhea, vomiting and stomach cramps, while chronic intake may lead to kidney damage, neurological effects, reproductive toxicity and in severe cases, death. Infants and children are especially at risk (Guan et al., 2005; Francis et al., 2020).

## 11. Salt and Added Sugar

Salt increases density, while sugar or glucose masks dilution. Excess sodium intake may contribute to hypertension and kidney stress, while added sugars increase the risk of obesity, diabetes and dental caries particularly in children (Reddy et al., 2017).

## 13. Aflatoxins

Aflatoxins originate from mold-contaminated animal feed and appear in milk as aflatoxin M1. They are potent carcinogens and hepatotoxins. Chronic exposure is linked to liver cancer, immune suppression and impaired child growth, even at low levels (Singuluri & Sukumaran, 2014).



## 10. Skimmed Milk Powder

Skimmed milk powder is added to mask dilution by increasing SNF content. While not inherently toxic, it alters the natural nutritional balance of milk. When low-quality or contaminated powder is used, it can introduce microbial or chemical hazards. Its use as an adulterant constitutes food fraud and may indirectly compromise health (Singuluri & Sukumaran, 2014).

## 12. Vegetable Fat and Vanaspati

Vegetable oils and vanaspati ghee are used to imitate milk fat. These may contain trans fats, which raise LDL cholesterol, lower HDL cholesterol and increase the risk of cardiovascular disease, obesity and type 2 diabetes (Guan et al., 2005).

## 14. Antibiotic Residues

Antibiotics used in dairy cattle may persist in milk if withdrawal periods are ignored. These residues can trigger allergic reactions, contribute to antimicrobial resistance, disrupt gut microbiota and in some cases, exhibit carcinogenic potential. They also interfere with dairy fermentation processes, causing economic losses (Das et al., 2016).





## 15. Microbial Contamination

Poor hygiene during milking, storage, or transport can introduce pathogens such as *E. coli*, *Salmonella*, *Listeria monocytogenes* and *Mycobacterium tuberculosis*. These organisms cause serious illnesses ranging from gastroenteritis to tuberculosis and can be life-threatening for pregnant women and immunocompromised individuals (Guan et al., 2005).

### Protecting a Staple Food

Milk adulteration is not merely a matter of food fraud it is a serious public health threat. The presence of toxic chemicals, harmful microorganisms and deceptive additives undermines nutritional security and places millions at risk of acute illness and chronic disease.

Addressing this issue requires a multi-sectoral approach including stronger regulatory enforcement, routine surveillance, public awareness campaigns and strict penalties for offenders. Equally important is empowering consumers with knowledge, enabling them to make informed choices and demand safer food.

Protecting milk means protecting health especially that of children, who depend on this “complete food” for growth, development and survival.



# Eid Then and Now

*From Crescent Moons to Digital Greetings A Cultural Journey Across Faith, Festivity and Fast-Changing Times*  
*Munir Hussain Chopra*



Before Eid arrives, it announces itself through Chand Raat.

The anxious waiting for the moon, the sudden confirmation, the rush of joy spreading through neighborhoods and phone calls made with excitement. Markets glow late into the night, bangles clink, mehndi stalls overflow and children stay awake longer than allowed.

Chand Raat was never just about sighting the moon, it was about anticipation, togetherness and

the feeling that something sacred was about to begin. Even today, when moon sightings reach us through screens, the emotional pull of that night still stirs nostalgia for crowded bazaars, laughter and sleepless excitement.

After iftar, the news would spread quickly. In most homes, it was the elderly woman, often the mother, who became the most excited, preparing localized traditional sweet dishes for the family. Mothers readied their children with care, knowing Eid was nearby.

## Eid Morning A Prayer That Once Defined the City

Eid begins before sunrise, with hearts lighter than air and homes filled with quiet excitement. Whether in a small village, a bustling megacity or a distant diaspora community, Eid prayer remains the spiritual anchor of the day. Men, women and children walk toward mosques and open grounds dressed in their finest clothes, exchanging smiles with strangers who feel like family. After prayer come hugs, greetings and shared joy.

Yet urbanization has quietly altered this ritual. Vast open Eid grounds have given way to crowded mosques, limited parking and rushed prayers. Many city dwellers now pray in shifts or within apartment complexes, missing the sea of worshippers that once symbolized unity. Traffic schedules, work commitments and distance mean some miss Eid namaz entirely, catching glimpses through broadcasts or social media. While faith remains unchanged, the collective physical experience has narrowed, reminding us how space shapes spirituality.



## Why We Still Begin Eid with Something Sweet

One of the most universal Eid customs is eating something sweet before or after the prayer, dates, sheer khurma, baklava, maamoul, kheer or regional desserts. After a month of fasting, sweetness represents gratitude, celebration and the return to lawful nourishment.

Over time, sweets became emotional currency, exchanged between neighbors, guests and relatives as gestures of love. Today, boxed mithai, designer desserts and imported chocolates dominate Eid tables, reflecting convenience and commercialization. Still, that first bite on Eid morning continues to signal joy and emotional attachment to the festival.

## Mehndi Hands That Carried Stories

Mehndi was once an unspoken language of Eid. Women and girls gathered on Chand Raat, hands stretched forward as stories, laughter and secrets flowed. The designs were imperfect, yet filled with love, applied by sisters, friends and neighbors. The fragrance of henna lingered into Eid morning, becoming part of memory itself.

Today, mehndi is often pre booked, professionally applied or replaced by instant cones and stickers. The art remains beautiful, but the communal ritual around it has thinned. What was once shared time has become scheduled beauty.



## From Handwritten Cards to Instant Wishes

In the 1980s and 1990s, Eid cards were treasures. Children waited eagerly for colorful envelopes decorated with moons, mosques and glittering calligraphy. Cards were displayed proudly and saved long after Eid had passed. Each carried handwriting, effort and emotional weight.

Today, Eid wishes travel instantly through messages, stories and animated greetings. Global reach has increased, yet the pause, the intention and the tactile memory have faded. Wishes are abundant but fleeting.

## Retail Lights and the Business of Celebration

As the crescent approaches, markets come alive, but differently than before. Traditional bazaars now compete with malls, online stores and branded campaigns. Eid editions, influencer promotions and countdown sales define trends rather than reflect heritage.

Shopping, once rooted in conversation and bargaining, has become fast, curated and algorithm driven. Eid remains festive, but increasingly commercial.



## Urban Living and the Quiet Shrinking of Community

In older neighborhoods, doors stayed open all day. Children moved freely, elders gathered without invitation and visits were spontaneous. In today's apartments and gated societies, Eid visits are scheduled, shortened or replaced by calls. Comfort, efficiency and privacy have come at the cost of shared presence. The warmth remains, but it requires more effort to reach.



## Eidi A Tradition Wrapped in Love and Memory

For many of us, the most cherished part of Eid was not the clothes or sweets, but the quiet moment when grandparents pressed a crisp note into our hands with a smile and a blessing. That simple gesture carried warmth and affection far beyond its monetary value.

Eidi symbolized love, continuity and family bonds, teaching us joy, gratitude and even the first lessons of saving and sharing. Long after the money was spent, the feeling remained.



## When Celebration Became Content

Digital life has transformed Eid into a visual performance. Outfits, tables and moments are curated for screens. While sharing joy is natural, the pressure to display perfection can overshadow gratitude and presence. Children remember Eid through photos more than games and conversations are often interrupted by notifications.



## Clothing Between Heritage and Hybrid Identity

Traditional Eid clothing once spoke clearly of region and history. Today, fashion blends heritage with global influence. Designs evolve, fabrics travel and identities mix. Tradition has not vanished, it adapts quietly, sometimes losing clarity, sometimes gaining freedom.



## Looking Back Without Losing Today

Eid in the 1980s and 1990s lives warmly in memory because life moved slower and bonds felt closer. There were fewer choices, fewer distractions and deeper presence. Yet today's Eid offers connection for families spread across continents, inclusion for those once distant and new forms of expression.

Eid has not disappeared, it has transformed.



## Holding the Crescent in a Changing World

Eid will continue to evolve, shaped by cities, technology and culture. The challenge is not resisting change, but protecting meaning. Digital greetings paired with personal calls, modern fashion worn with cultural pride and sweets shared with intention.

As long as Eid prayer gathers hearts and sweetness opens the morning, the spirit of Eid will endure, quietly adapting yet unmistakably alive.





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# Spring in Asia

## *Festivals of Joy Color and Togetherness*

*Rafia Batool*



As winter loosens its grip and the first blossoms appear Asia comes alive in celebration. Streets brighten parks fill with people and rooftops echo with laughter. Across the continent spring is more than a seasonal shift. It is a shared feeling of renewal and hope. Festivals unfold with music food color and movement turning ordinary spaces into places of connection and joy.

What unites these celebrations is not geography or belief but the human instinct to welcome change together. Spring festivals across Asia become moments of reunion where families gather neighbors reconnect and communities celebrate life with warmth and pride.

## **Nowruz Welcoming New Beginnings**

One of Asia's oldest spring celebrations is Nowruz the Persian New Year observed on the spring equinox across Iran Afghanistan Tajikistan and parts of Central Asia. It marks renewal hope and the start of a new cycle of life.

Homes are cleaned and decorated families prepare symbolic meals and communities gather for music dance storytelling and outdoor festivities. Fire jumping rituals symbolize leaving behind hardship and entering the season with optimism. Shared meals public celebrations and cultural performances strengthen unity and remind people of the joy found in togetherness.



## Holi: A Celebration of Color and Freedom

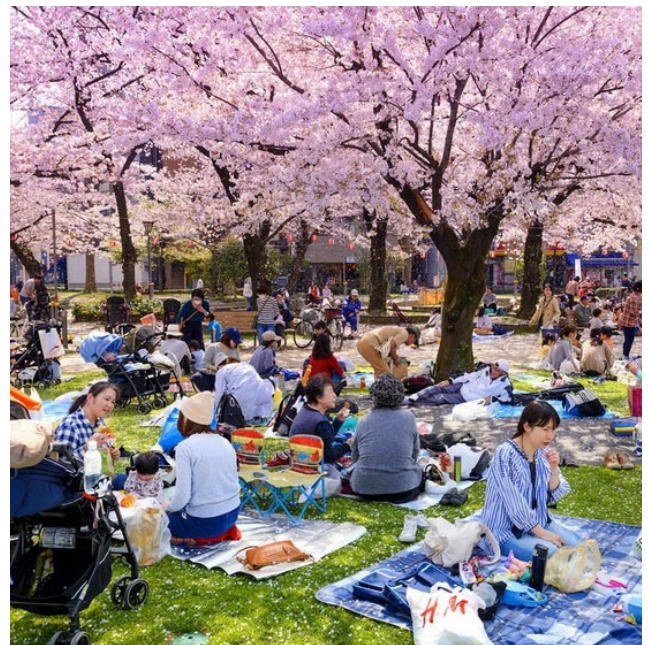
In South Asia spring arrives with Holi celebrated across India and Nepal. Towns and villages transform into open spaces of joy where people throw vibrant colors and water while music fills the air.

Bonfires mark the eve of celebration and the following day is filled with laughter dancing and playful interaction. Traditional sweets and spiced drinks bring families and friends together. Holi represents joy equality and emotional release creating memories that remain long after the colors fade.

## Hanami: Finding Joy in Stillness

Spring in Japan unfolds gently through Hanami the cherry blossom season. From late March to early April parks become gathering places for family's friends and colleagues.

People picnic beneath blooming trees enjoy cultural performances and share seasonal foods. Hanami encourages reflection appreciation of nature and quiet connection. It celebrates life's beauty and its fleeting nature reminding people to slow down and cherish shared moments.



## Songkran: Celebration Through Play

Thailand welcomes spring with Songkran the traditional New Year festival held in mid-April. Cities and towns turn lively as people take to the streets for joyful water celebrations.

Families share meals parades fill the roads and music and dance energize public spaces. Songkran represents cleansing renewal and unity expressed through laughter participation and shared happiness.

## Basant: Skies Filled with Color

In Pakistan spring has long been associated with Basant especially in Lahore. Rooftops once filled with families flying colorful kites while cheers echoed across neighborhoods.

Street fairs music food stalls and cultural events created a festive atmosphere. Basant reflected friendship creativity and cultural pride offering a powerful example of how seasonal celebrations can unite communities.



## A Shared Spirit Across Asia

Across the continent similar celebrations reflect the same spirit. Cherry blossom festivals in South Korea lantern festivals in Taiwan and spring fairs across Southeast Asia highlight family culture and community.

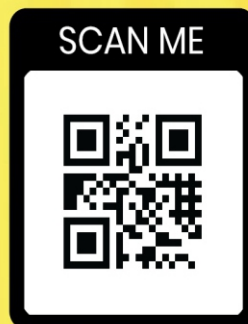
These events fill public spaces with color sound and movement creating shared experiences that connect generations and strengthen social bonds.

## Celebrating Life Together

Spring festivals in Asia go beyond entertainment. They preserve tradition strengthen relationships and renew collective spirit. Through music food gatherings and shared rituals communities celebrate not only the season but each other.

From kite filled skies to flower lined parks and lively streets spring reveals Asia at its most vibrant. These festivals remind us that joy grows when shared and that togetherness remains the heart of celebration.





For More Information:

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# Women's Health in the Modern World

## *Understanding Hormonal Disorders, Nutrition and Lifestyle Interventions*

*Dr. Kanza Aziz Awan*



Women's health has gained increasing global attention in recent decades as research highlights the complexity of female physiology and the wide range of health challenges women face across their lifespan. Hormonal disorders, reproductive health issues and lifestyle-related diseases increasingly affect women worldwide. Conditions such as Polycystic Ovary Syndrome (PCOS), endometriosis, menstrual irregularities, infertility and metabolic disorders not only affect physical health but also impact emotional well-being, productivity and quality of life.

Understanding these conditions through scientific evidence and adopting preventive nutrition and lifestyle strategies is essential for improving women's health outcomes.

### **The Global Burden of Women's Reproductive Health Disorders**

Many reproductive health conditions remain underdiagnosed due to lack of awareness, cultural stigma and limited access to healthcare services. Research shows that millions of women suffer from hormonal and gynecological disorders globally.

## For example:

- **PCOS affects approximately 8–13% of women of reproductive age worldwide**, making it one of the most common endocrine disorders among women. (World Health Organization)
- **Alarmingly, up to 70% of women with PCOS remain undiagnosed globally.** (World Health Organization)
- **Endometriosis affects about 10% of reproductive-age women (around 190 million globally)** and is associated with chronic pain and infertility. (World Health Organization)

These statistics demonstrate that women's health disorders are not rare conditions but major public health concerns requiring greater attention.

# Polycystic Ovary Syndrome (PCOS)

## What is PCOS?

PCOS is a hormonal disorder characterized by irregular ovulation, increased androgen levels and polycystic ovaries. It is one of the leading causes of infertility among women. (World Health Organization)

Common symptoms include:

- Irregular or absent menstrual cycles
- Acne and excessive facial or body hair
- Weight gain and difficulty losing weight
- Infertility
- Ovarian cysts
- Insulin resistance and metabolic disturbances

PCOS is also associated with increased risk of type 2 diabetes, cardiovascular disease and metabolic syndrome. (NCBI)

## Risk Factors

Several factors contribute to PCOS development:

- Genetic predisposition
- Insulin resistance
- Obesity and sedentary lifestyle
- Environmental endocrine disruptors
- Poor dietary patterns (Springer)



## Types of PCOS

### 1. Insulin-Resistant PCOS

This is the most common form, affecting nearly 70% of women with PCOS. In this type, the body's cells become resistant to insulin, causing high insulin levels which stimulate the ovaries to produce excess androgens (male hormones).

## Common features

- Weight gain, especially around the abdomen
- Irregular or missed periods
- Acne and excessive facial/body hair
- Dark patches on the skin (acanthosis nigricans)
- Management focus

### Low-glycemic diet

- Regular exercise
- Weight management
- Insulin-sensitizing medication if needed

## 2. Inflammatory PCOS

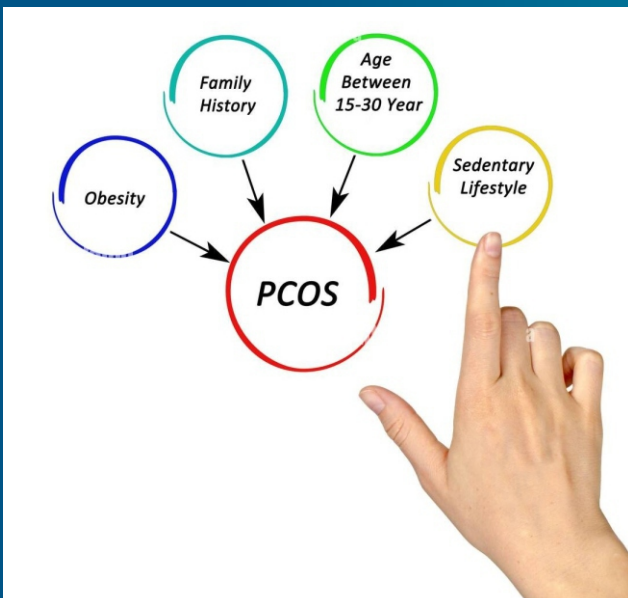
Inflammatory PCOS occurs when chronic low-grade inflammation triggers hormone imbalance and increases androgen production.

### Common features

- Acne and skin problems
- Persistent fatigue
- Digestive issues
- Joint pain
- Irregular cycles

### Management focus

- Anti-inflammatory diet (fruits, vegetables, omega-3 fats)
- Reducing processed foods and sugar
- Stress reduction and gut health improvement



## 3. Adrenal PCOS

This type is related to overproduction of androgens by the adrenal glands, often linked with chronic stress.

### Common features

- Elevated DHEA-S hormone
- Stress sensitivity
- Sleep disturbances
- Acne and hair thinning
- Normal insulin levels in many cases

### Management focus

- Stress management
- Adequate sleep
- Moderate exercise

## 4. Post-Pill PCOS

Post-pill PCOS can occur after stopping oral contraceptive pills, when hormone levels rebound and temporarily increase androgen production.

### Common features

- Irregular cycles after stopping birth control
- Acne
- Temporary hormonal imbalance
- Management focus
- Hormonal balance through nutrition
- Time for the body to restore natural cycles
- Medical monitoring if symptoms persist
- Adaptogenic nutrition support

## Clinical Phenotypes (Medical Classification)

Doctors sometimes classify PCOS into four phenotypes (A–D) based on symptoms such as irregular ovulation, androgen levels, and ovarian cysts on ultrasound.

Type A: Classic PCOS with high androgens, irregular periods, and polycystic ovaries

Type B: High androgens and irregular ovulation but normal ovaries

Type C: Regular ovulation but high androgen levels

Type D: Polycystic ovaries and irregular cycles without androgen excess

## Understanding Endometriosis

Endometriosis occurs when tissue similar to the uterine lining grows outside the uterus, leading to inflammation, scar tissue formation, and chronic pain. (World Health Organization)

### Major symptoms include:

- Severe menstrual pain
- Chronic pelvic pain
- Pain during intercourse
- Heavy menstrual bleeding
- Fatigue and digestive symptoms
- Difficulty conceiving

Among women experiencing infertility, 25–50% are estimated to have endometriosis, highlighting its strong link with reproductive health challenges. (World Health Organization)

Diagnosis can be difficult and may take several years due to overlapping symptoms with other conditions.

## Other Common Women's Health Issues

Women face multiple health challenges throughout different life stages.



### 1. Menstrual Disorders

Conditions such as dysmenorrhea (painful periods), heavy menstrual bleeding and irregular cycles often indicate underlying hormonal imbalance.

### 2. Infertility

Infertility affects millions of couples worldwide and may result from ovulatory disorders, endometriosis, hormonal imbalance or metabolic diseases.

### 3. Iron Deficiency and Anemia

Due to menstruation and pregnancy demands, women are at higher risk of anemia, which can lead to fatigue, reduced immunity and cognitive impairment.

### 4. Mental Health

Hormonal disorders often increase the risk of anxiety, depression and reduced self-esteem due to physical symptoms such as acne, hair growth or infertility.

# Nutrition and Women's Hormonal Health

Nutrition plays a crucial role in preventing and managing hormonal disorders.

## 1. Balanced Macronutrient Intake

A balanced diet containing complex carbohydrates, lean protein and healthy fats supports hormonal balance.

Recommended foods include:

- Whole grains
- Legumes
- Nuts and seeds
- Fresh fruits and vegetables
- Lean protein sources

These foods help stabilize blood glucose and improve metabolic health.

## 2. Low Glycemic Index Diet

Women with PCOS benefit from low-glycemic diets that reduce insulin resistance. Whole grains, oats, lentils, and vegetables help maintain stable blood sugar levels.

## 3. Anti-Inflammatory Diet

Inflammation is believed to contribute to PCOS and endometriosis. Anti-inflammatory foods include:



- Turmeric
- Ginger
- Fatty fish
- Olive oil
- Green leafy vegetables

These foods may reduce inflammation and support hormonal balance.

## 4. Micronutrients Important for Women

Key nutrients include:

- Iron – prevents anemia
- Calcium & Vitamin D – support bone health
- Magnesium – improves PMS symptoms
- Omega-3 fatty acids – reduce inflammation
- Folate – important for reproductive health
- Adaptogenic nutrition support



# Lifestyle Modifications for Women's Health

Lifestyle interventions remain the first-line strategy for many hormonal disorders.

## 1. Physical Activity

Regular exercise improves insulin sensitivity and hormonal balance.

Recommended activities:

- Brisk walking
- Yoga
- Strength training
- Cycling

Even moderate exercise for 150 minutes per week significantly improves metabolic health.

## 2. Weight Management

Maintaining a healthy weight helps regulate menstrual cycles and reduce PCOS symptoms.

Even 5–10% weight reduction can improve ovulation and fertility outcomes in women with PCOS.

## 3. Stress Management

Chronic stress disrupts hormonal pathways. Effective stress-reducing techniques include:

- Meditation
- Mindfulness practices
- Deep breathing exercises
- Adequate sleep (7–9 hours daily)

## 4. Limiting Ultra-Processed Foods

High intake of sugar-sweetened beverages, refined carbohydrates and ultra-processed foods contributes to insulin resistance and metabolic disorders.

Replacing these foods with natural, whole foods improves hormonal balance.

# The Need for Greater Awareness

Women's health conditions remain underdiagnosed due to social stigma, limited research funding, and lack of awareness. Many women suffer silently for years before receiving a diagnosis.

### Healthcare systems must prioritize:

- Early screening
- Health education programs
- Nutrition counseling
- Access to reproductive healthcare

Empowering women with knowledge about their bodies and health risks is a key step toward improving health outcomes.

## Conclusion

Women's health is a cornerstone of family and community well-being. Conditions such as PCOS and endometriosis highlight the complex interaction between hormones, metabolism, lifestyle and nutrition.

While medical treatment is often necessary, preventive strategies including balanced nutrition, physical activity, stress management and early diagnosis can significantly improve quality of life. Greater awareness, research and policy support are essential to ensure that women receive the healthcare attention they deserve.

## Disclaimer

This publication is an independent health awareness guide prepared for community education. It is not a newspaper or government publication. Nutritional advice is general and not a substitute for professional medical consultation.

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کچھ خاص ہے آپ کے لیے



# Sundas Foundation

## *A Lifeline of Hope for Patients with Blood Disorders in Pakistan*



Founded in 1998 in Gujranwala by social worker Muhammad Yaseen Khan Sundas Foundation has become one of the most prominent welfare organizations in Pakistan dedicated to supporting patients suffering from serious blood disorders such as Thalassemia Hemophilia and Blood Cancer. What began as a small humanitarian effort to provide safe blood transfusions has evolved into a nationwide healthcare network. Today the foundation operates multiple centers across cities including Lahore Karachi Islamabad Gujranwala Faisalabad Gujrat Sargodha and Sialkot serving thousands of patients every month with plans to expand further to Quetta and Peshawar.

Over the years Sundas Foundation has registered more than 12000 patients requiring lifelong treatment particularly those with thalassemia who depend on regular blood transfusions for survival. The foundation provides free or highly subsidized medical services including blood transfusions diagnostic testing and supportive care for underprivileged families who cannot afford expensive treatments. It also supports patients battling blood cancers and other hematological disorders ensuring early diagnosis proper disease management and safe transfusion practices.

Beyond medical care Sundas Foundation promotes awareness and community participation through regular blood donation drives counseling programs and preventive campaigns such as premarital screening to reduce thalassemia cases. Supported largely by public donations zakat and corporate contributions the organization continues to expand its reach while maintaining transparency and patient centered services. For thousands of children and families across Pakistan Sundas Foundation represents hope compassion and the promise of a healthier future.

# Unicef



The latest Punjab MICS 2024 data shows that the province continues to face serious nutrition challenges, with 27.3% of children under five stunted, 10.2% wasted, and 20.9% underweight figures that have shown minimal improvement since 2018 despite ongoing efforts. Exclusive breastfeeding remains low at 33.9%, and infant and young child feeding practices continue to require substantial strengthening. These indicators highlight persistent vulnerabilities in maternal, child, and adolescent nutrition across Punjab, underscoring the need for a coordinated and system-wide approach.

UNICEF is responding through a comprehensive, multisectoral strategy aligned with provincial priorities. This includes strengthening governance and coordination platforms to ensure nutrition and Early Childhood Development (ECD) are jointly planned and delivered; expanding early childhood nutrition interventions such as improved IYCF counselling, micronutrient supplementation, and nutrition-sensitive WASH services; and scaling up programmes for middle childhood, adolescent, and maternal nutrition with a strong focus on equitable access, dietary diversity, and improved service quality. Together with the Government of Punjab, UNICEF is committed to transforming these indicators by building stronger systems, driving community-level behavior change, and ensuring every child, adolescent, and mother receives the care and nutrition needed to survive and thrive



Since 1987  
Taste of Pakistan

SHARING SWEET MOMENTS  
WITH EVERYONE



# LAYERS

## About us

Like a fantasy that feels unreal, every delicacy by 'Layers' holds a charm that enchants with every bite, allowing one to be swept into a moment of bliss, making all your dessert dreams come true!

Founded in **Lahore** in **2020**, the philosophy of Layers Bakeshop was simple; to create connections through desserts while striking the ideal balance between flavor and feeling.

Since the beginning, Layers has secured an irreplaceable spot **in the hearts of people**.

No of branches: **46**



## Recent launches

Lemon cheesecake



Sab Sebastian cake



# Allah Waly Foundation (AWF)



**Allah Wale Foundation (AWF)** is a non-profit organization working in Pakistan since 2010 in the areas of food security clean water health and nutrition education volunteerism leadership and disaster management. The organization operates across Punjab Sindh federal areas and Gilgit-Baltistan and is registered under the Societies Registration Act 1860. Guided by the vision of empowering future generations AWF works to transform lives by providing essential resources in health nutrition education skills and leadership so that every child and young person can grow and achieve their potential.

One of its major initiatives is the **School Khana Program** which provides more than **130000** nutritious meals daily to students in 539 government primary schools across eight cities including Lahore Islamabad Gilgit City Chilas Skardu Faisalabad Dijkot and Kamoki. The program follows a structured nutritional menu and tracks impact through improvements in BMI attendance enrollment and student retention. In addition the **School Vision Program** conducts free eye screening camps in schools where more than **21519** students have been screened\* and free vision glasses are provided to those in need.

Beyond school nutrition AWF works in hunger relief clean water health education and disaster response. The foundation distributes cooked meals and dry rations supports hospitals and nutrition programs runs volunteer and leadership initiatives and manages large central kitchens capable of producing thousands of meals within hours. In **2025 AWF served over 215 million meals supported 173400 ration beneficiaries and operated across 561 locations** while also delivering emergency relief during floods and providing more than **one million Sehri and Iftar meals during Ramadan.**



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