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Popular Dietary Patterns and Human Health: Mediterranean, DASH, Vegan, Nordic, Planetary, Ornish, Ketogenic, Atkins, Paleo, Gluten-free, Low-FODMAP, Intermittent fasting, Macrobiotic, Alkaline and Other Contemporary Diets

Amit Sachdeva[1*], Mukesh Kumar[2], Aashima Sharma[3] and Anju Sachdeva[4]
[1,3]Department of Community Medicine, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India
[2]Department of Anaesthesia, Maharishi Markandeshwar College of Medical Science and Research (MMCMSR), Sadopur Ambala, Haryana, India
[4]Shimla, Himachal Pradesh, India

Author Designation: [1]Assistant Professor, [2]Associate Professor, [3]Junior Resident, [4]Physiotherapist

*Corresponding author: Amit Sachdeva (e-mail: dramitsachdeva2410@gmail.com).

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Abstract Dietary patterns have become an important focus of nutrition research because health outcomes are influenced not only by individual nutrients but also by the overall combination, quality and quantity of foods consumed. Alongside well-established dietary patterns such as the Mediterranean and Dietary Approaches to Stop Hypertension (DASH) diets, numerous plant-based, carbohydrate-restricted, fasting-based, therapeutic, elimination and commercially promoted diets have gained popularity. These dietary approaches differ considerably in their composition, intended purpose, scientific evidence, nutritional adequacy, feasibility and potential health effects. This narrative review provides a concise overview of commonly followed dietary patterns, including Mediterranean, DASH, vegetarian, vegan, flexitarian, whole-food plant-based, Nordic, MIND, Portfolio, low-fat, low-carbohydrate, ketogenic, Atkins, Paleolithic, high-protein, low-glycaemic-index, intermittent fasting, time-restricted eating, gluten-free, low-FODMAP, macrobiotic, raw-food, carnivore, alkaline, blood-type, detox and selected commercial diets. Evidence regarding cardiovascular health, obesity, diabetes, metabolic outcomes, gastrointestinal disorders and other relevant health effects is summarized, together with important nutritional and practical limitations. Overall, dietary patterns emphasizing minimally processed foods, vegetables, fruits, whole grains, legumes, nuts and appropriate sources of protein and unsaturated fat have the most consistent evidence for long-term health. Highly restrictive dietary patterns may have selected therapeutic applications but generally require greater attention to nutritional adequacy, sustainability and clinical supervision.

Key Words Dietary Patterns, Mediterranean Diet, DASH Diet, Vegetarian Diet, Vegan Diet, Ketogenic Diet, Low-Carbohydrate Diet, Intermittent Fasting, Gluten-Free Diet, Nutrition

INTRODUCTION

Diet is a major modifiable determinant of health and plays an important role in the prevention and management of obesity, cardiovascular disease, hypertension, type 2 diabetes and several other chronic conditions. Contemporary nutritional research has increasingly shifted from studying isolated nutrients toward evaluating overall dietary patterns, because foods and nutrients are consumed in combination and may have additive or interactive effects on health. Dietary patterns also better reflect how people actually eat and therefore have greater relevance for public-health recommendations and clinical counselling.

A wide range of dietary patterns are now followed for health, weight control, ethical, cultural, environmental or therapeutic reasons. Some, such as the Mediterranean and DASH diets, are supported by substantial clinical and epidemiological evidence. For example, the corrected and republished PREDIMED trial reported a lower incidence of major cardiovascular events among high-risk adults assigned to Mediterranean dietary interventions supplemented with extra-virgin olive oil or nuts compared with a reduced-fat control diet [1]. A meta-analysis of randomized trials has similarly demonstrated clinically meaningful reductions in blood pressure with the DASH dietary pattern [2].

Plant-based approaches have also attracted increasing interest. Vegetarian dietary patterns may improve several cardiometabolic risk factors, although effects vary according to the quality and composition of the foods replacing animal products [3]. At the same time, public interest has expanded toward diets with markedly different philosophies, including low-carbohydrate and ketogenic diets, intermittent fasting, Paleolithic diets, gluten-free diets in people without coeliac disease, carnivore diets, alkaline diets and commercial weight-loss programmes. The scientific support for these approaches is highly variable and popularity should therefore not be considered equivalent to evidence of long-term benefit.

An American Heart Association scientific statement comparing popular dietary patterns with contemporary cardiovascular dietary guidance illustrates this heterogeneity. Dietary patterns rich in vegetables, fruits, whole grains, legumes, nuts and other minimally processed foods generally show greater alignment with cardiovascular-health recommendations, whereas highly restrictive patterns may exclude food groups associated with established health benefits or create challenges related to nutrient adequacy and long-term adherence [4].

Importantly, no single dietary pattern is appropriate for every individual. Health effects depend not only on the name of the diet but also on food quality, degree of restriction, energy intake, nutrient adequacy, underlying disease, cultural acceptability, affordability and long-term adherence. A poorly constructed vegetarian or low-fat diet, for example, may contain substantial quantities of refined carbohydrates and ultra-processed foods, whereas a thoughtfully designed version may be nutritionally balanced. Similarly, carbohydrate restriction can range from a modest reduction in carbohydrate intake to the very-low-carbohydrate ketogenic diet, with substantially different metabolic and nutritional implications.

Given the growing number of dietary approaches promoted through healthcare settings, commercial programmes and social media, clinicians and the general public require a practical comparison of their characteristics, potential benefits and limitations. This review therefore summarizes the major established, therapeutic and currently popular dietary patterns, with particular emphasis on their defining foods, major health effects, nutritional concerns, strength of evidence and appropriate clinical context. The purpose is not to identify one universally superior diet but to distinguish dietary approaches supported by relatively strong evidence from those for which evidence remains limited or uncertain.

Major Dietary Patterns

Mediterranean Diet: The Mediterranean diet is based on the traditional dietary habits of Mediterranean populations and emphasizes vegetables, fruits, whole grains, legumes, nuts, seeds and olive oil, with moderate intake of fish, poultry and dairy products and limited red and processed meat, sweets and highly processed foods. A typical meal may include a vegetable-legume preparation, whole-grain bread, salad with olive oil, fruit and a small serving of fish. It is among the most extensively studied dietary patterns, with evidence supporting cardiovascular and metabolic benefits. The PREDIMED trial demonstrated a lower incidence of major cardiovascular events among high-risk individuals following Mediterranean diets supplemented with extra-virgin olive oil or nuts [1]. More recent randomized-trial evidence also supports cardiovascular benefit [5]. Its flexibility and food variety favour long-term adherence, although cost, accessibility and adaptation to local food cultures may influence implementation.

DASH Diet

The Dietary Approaches to Stop Hypertension (DASH) diet emphasizes vegetables, fruits, whole grains, legumes, nuts and low-fat dairy products while limiting sodium, sweets, sugar-sweetened beverages, saturated fat and red and processed meats. A practical DASH meal could consist of whole-grain roti, dal, cooked vegetables, salad, curd and fruit, with limited salt and fried foods. DASH is particularly useful for prevention and management of hypertension. Meta-analytic evidence demonstrates clinically meaningful reductions in systolic and diastolic blood pressure [2], while an umbrella review also found favourable associations with cardiovascular disease and improvements in several cardiometabolic risk factors [6]. The diet is nutritionally balanced and can be adapted to different cultures; however, achieving recommended sodium restriction and maintaining high fruit, vegetable and whole-grain intake may be challenging for some individuals.

Vegetarian Diet

Vegetarian diets exclude meat, poultry and fish but vary according to whether dairy products and eggs are consumed. Lacto-ovo vegetarian diets include both eggs and dairy products, lacto-vegetarian diets include dairy but exclude eggs and ovo-vegetarian diets include eggs but exclude dairy. A typical Indian vegetarian meal of dal or rajma, vegetables, whole-grain roti, curd, salad and fruit can provide a nutritionally balanced example. Randomized-trial evidence suggests that vegetarian dietary patterns may modestly reduce LDL cholesterol, body weight and HbA1c among individuals with or at high cardiovascular risk [3]. However, health effects depend strongly on food quality; a vegetarian diet rich in refined grains, sweets and fried or ultra-processed foods should not automatically be considered healthy. Attention may be required to vitamin B12, iron, zinc, calcium, vitamin D, iodine and omega-3 fatty acids, particularly when dietary variety is limited.

Vegan Diet

A vegan diet excludes all animal-derived foods, including meat, fish, eggs and dairy products and is based on vegetables, fruits, grains, legumes, nuts and seeds. A

balanced vegan meal may include chickpeas or lentils, brown rice or whole-grain roti, vegetables, salad, fruit and nuts or seeds. A meta-analysis of randomized controlled trials found that vegan diets reduced body weight, BMI, HbA1c, total cholesterol and LDL cholesterol in people with overweight or type 2 diabetes, although significant improvements were not demonstrated for all cardiometabolic outcomes [7]. Because the diet completely excludes animal foods, vitamin B12 supplementation is essential and careful attention should also be given to protein quality, calcium, iron, zinc, iodine, vitamin D and omega-3 fatty acids. Thus, a well-planned vegan diet can be nutritionally appropriate, whereas an inadequately planned restrictive vegan diet may increase the risk of nutrient deficiencies.

Whole-Food Plant-Based Diet

A Whole-Food Plant-Based (WFPB) diet emphasizes minimally processed vegetables, fruits, whole grains, legumes, nuts and seeds while markedly reducing or excluding animal products, refined grains, added sugars and highly processed foods. Unlike a vegan diet, its primary emphasis is on food quality rather than complete avoidance of every animal-derived ingredient. A typical meal may include dal or beans, brown rice or whole-grain roti, mixed vegetables, salad, fruit and nuts. In the BROAD randomized trial, a low-fat WFPB intervention produced substantial reductions in BMI and body weight among adults with overweight/obesity and cardiometabolic conditions [8]. However, the trial was relatively small and broader long-term evidence specifically for strictly defined WFPB diets remains limited. Vitamin B12 and other potentially inadequate nutrients require attention when animal foods are completely excluded.

Flexitarian or Semi-Vegetarian Diet

A flexitarian diet is predominantly plant-based but permits occasional consumption of meat, poultry or fish, making it less restrictive than vegetarian or vegan diets. A practical example is eating dal, vegetables, whole grains, fruits and nuts on most days while consuming fish, chicken or another animal food occasionally. Available evidence suggests possible benefits for body weight, metabolic health and type 2 diabetes risk, although the evidence base is considerably less developed than that for Mediterranean or DASH diets [9]. Its major advantage is flexibility, which may improve acceptability and long-term adherence while allowing individuals to reduce meat consumption without eliminating it completely. However, there is no universally accepted definition of how frequently animal foods may be consumed, making comparison between studies difficult.

Pescatarian Diet

A pescatarian or pesco-vegetarian diet excludes meat and poultry but includes fish and seafood, usually alongside vegetables, fruits, whole grains, legumes, nuts and seeds; dairy products and eggs may also be included depending on individual preference. A typical meal may consist of grilled fish with vegetables, whole grains and salad, while plant-based meals such as dal, beans or chickpeas are consumed on other days. Prospective EPIC-Oxford data found that fish eaters had a lower risk of ischaemic heart disease than meat eaters, although such observational findings cannot establish causality [10]. The diet can provide protein, vitamin B12 and long-chain omega-3 fatty acids while retaining many features of plant-rich diets. Choice of fish is important because nutrient composition and exposure to environmental contaminants vary among species.

Nordic Diet

The healthy Nordic diet is based on foods traditionally available in Nordic countries and emphasizes whole grains such as rye, oats and barley, berries, vegetables, legumes, root vegetables, nuts, rapeseed oil and fish, while limiting processed foods, added sugars and excessive red meat. A representative meal could include whole-grain rye, root vegetables, berries and oily fish. A systematic review and meta-analysis found that greater adherence to Nordic dietary patterns was associated with modest reductions in cardiovascular disease and type 2 diabetes risk, while randomized trials showed improvements in LDL cholesterol and some other cardiometabolic risk factors [11]. The pattern shares many principles with the Mediterranean diet but uses regionally appropriate foods. Its specific ingredients may be less practical outside Nordic regions, although its underlying principles can be adapted using locally available foods.

MIND Diet

The Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet combines features of the Mediterranean and DASH diets with particular emphasis on foods proposed to support brain health, including green leafy vegetables, other vegetables, berries, nuts, whole grains, beans, olive oil and fish, while limiting red meat, butter, cheese, pastries, sweets and fried foods. A simple example is a meal containing leafy vegetables, beans, whole grains and nuts, with berries as fruit and regular fish intake. Observational studies initially suggested slower cognitive decline with greater adherence; however, a 3 year randomized clinical trial in older adults at risk of dementia found that cognition improved in both the MIND-diet and control groups, without a significant between-group difference [12]. Thus, the diet is nutritionally sound but claims of specific protection against cognitive decline should remain cautious.

Portfolio Diet

The Portfolio diet is a predominantly plant-based cholesterol-lowering dietary pattern that combines several foods with established LDL-cholesterol-lowering properties, particularly nuts, plant protein such as soy and legumes, viscous soluble fibre from foods such as oats, barley and

psyllium and plant sterols. A practical meal might include oats with nuts for breakfast and beans or soy with vegetables and whole grains later in the day. A systematic review and meta-analysis of controlled trials found that the Portfolio dietary pattern reduced LDL cholesterol by approximately 17% and also improved several other cardiometabolic risk factors when added to a cholesterol-lowering background diet [13]. The diet is therefore particularly relevant for hypercholesterolaemia, although achieving the recommended combination and quantities of its individual components may be more demanding than following a general healthy dietary pattern.

Planetary Health (EAT-Lancet) Diet

The Planetary Health Diet proposed by the EAT-Lancet Commission aims to promote human health while reducing the environmental impact of food production. It is predominantly plant-based, emphasizing vegetables, fruits, whole grains, legumes, nuts and unsaturated oils, with moderate amounts of fish, poultry and dairy and relatively small amounts of red meat and added sugar [14]. A practical Indian example could include whole-grain roti, dal, seasonal vegetables, salad, fruit and nuts, with animal-source foods consumed in relatively small quantities. The pattern broadly resembles other high-quality plant-rich diets but its distinguishing feature is the simultaneous consideration of health and environmental sustainability. Because recommended quantities may require adaptation to local nutritional needs, affordability and food cultures, it should be viewed as a flexible framework rather than a rigid universal prescription.

Low-Fat Diet

Low-fat diets generally restrict total dietary fat, commonly to below about 30% of total energy, with some versions imposing substantially greater restriction. They usually emphasize grains, vegetables, fruits and legumes while limiting fatty meats, full-fat dairy, fried foods and added fats. A practical example is dal, rice or roti, vegetables, salad and low-fat curd prepared with limited oil. Although reducing energy-dense high-fat foods can facilitate calorie reduction, a large meta-analysis found that low-fat diets were not superior to other similarly intensive dietary interventions for long-term weight loss [15]. The quality of the replacement nutrient is important: replacing unsaturated fats with refined carbohydrates is unlikely to improve diet quality. Therefore, contemporary dietary advice generally focuses more on the type and quality of dietary fat and the overall dietary pattern than simply minimizing total fat.

Ornish Diet

The Ornish diet is a very-low-fat, predominantly whole-food vegetarian dietary pattern that formed part of an intensive lifestyle programme developed for patients with coronary heart disease. It emphasizes vegetables, fruits, whole grains and legumes and markedly restricts dietary fat and animal products. A typical meal might include beans or lentils, whole grains, vegetables, salad and fruit with minimal added fat. In the Lifestyle Heart Trial, participants receiving intensive lifestyle modification showed regression rather than progression of coronary atherosclerosis over five years [16]. However, the intervention also included exercise, stress management, smoking cessation and psychosocial support; therefore, the observed cardiovascular effects cannot be attributed to the diet alone. The substantial dietary restriction may also make long-term adherence difficult for some individuals.

Low-Carbohydrate Diet

Low-carbohydrate diets restrict carbohydrate intake while increasing the relative contribution of protein and/or fat. Definitions vary but intake below approximately 130 g/day or below 26% of total energy is commonly used in clinical research [17]. Foods such as sugar-sweetened beverages, sweets, refined grains, rice and bread are reduced, while non-starchy vegetables, eggs, fish, meat, dairy, nuts and healthy oils may be emphasized. A practical lower-carbohydrate meal could include paneer, eggs or fish with vegetables, salad and curd while reducing rice or roti portions. In people with type 2 diabetes, systematic-review evidence suggests that low-carbohydrate diets can improve glycaemic control and may increase diabetes remission at six months, although benefits diminish with longer follow-up [17]. Food quality, medication adjustment and long-term adherence remain important considerations.

Ketogenic Diet

The ketogenic diet is a very-low-carbohydrate, high-fat dietary pattern designed to induce nutritional ketosis, typically restricting carbohydrate to below about 10% of total energy or approximately 20-50 g/day. Foods commonly include eggs, fish, meat, cheese, nuts, seeds, oils and low-carbohydrate vegetables, while grains, most pulses, sugar and many fruits are markedly restricted. A typical meal may consist of eggs or paneer with non-starchy vegetables, nuts and added fat. Ketogenic diets have an established therapeutic role in drug-resistant epilepsy and may produce short-term reductions in body weight and improvements in some metabolic outcomes. An umbrella review, however, found that the quality of evidence varied considerably across outcomes and follow-up was often short [18]. Potential concerns include constipation, micronutrient inadequacy and adverse lipid changes in some individuals; prolonged therapeutic use therefore warrants appropriate clinical supervision.

Atkins Diet

The Atkins diet is a branded low-carbohydrate diet that begins with marked carbohydrate restriction and subsequently allows gradual increases in carbohydrate intake while emphasizing protein- and fat-containing foods. Early phases restrict bread, rice, pasta, sugar and many fruits,

while allowing foods such as eggs, meat, fish, cheese, non-starchy vegetables, nuts and oils. In the A TO Z randomized trial, overweight premenopausal women assigned to the Atkins diet lost more weight at 12 months than those assigned to the Zone diet, with weight loss not significantly different from the LEARN and Ornish groups; several metabolic risk factors were also comparable or favourable [19]. These findings do not establish long-term superiority and outcomes are likely to depend on adherence and food quality. Preference for unsaturated fats, vegetables and minimally processed protein sources is important when following a low-carbohydrate approach.

Paleolithic (Paleo) Diet

The Paleolithic or Paleo diet attempts to resemble foods presumed to have been consumed before modern agriculture and generally emphasizes vegetables, fruits, nuts, seeds, eggs, fish and lean meat while excluding or markedly restricting grains, legumes, dairy products, refined sugar and highly processed foods. A typical meal may include grilled fish or lean meat with vegetables, salad, fruit and nuts. A systematic review and meta-analysis of four small randomized trials found greater short-term improvements in some components of metabolic syndrome compared with guideline-based control diets [20]. However, the evidence was based on only 159 participants and follow-up of six months or less. Exclusion of whole grains, legumes and dairy may unnecessarily restrict nutritious foods and can reduce calcium and fibre intake. Therefore, long-term superiority over balanced dietary patterns remains unproven.

High-Protein Diet

High-protein diets increase the proportion of dietary energy derived from protein, commonly through eggs, dairy products, fish, poultry, lean meat, pulses, soy, nuts and seeds. A practical meal could include dal with curd or paneer, vegetables and a smaller portion of whole-grain roti or fish with vegetables and salad. Higher protein intake may increase satiety and help preserve lean mass during energy-restricted weight loss. Evidence suggests that approximately 1.2-1.6 g/kg/day of protein may assist appetite and body-weight management in some adults, although long-term benefits are strongly influenced by adherence [21]. Protein source and overall diet quality remain important. Very high protein intake is not necessary for most individuals and people with chronic kidney disease or other conditions requiring protein modification should seek individualized professional advice.

Low-Glycaemic-Index/Low-Glycaemic-Load Diet

Low-glycaemic-index (GI) diets preferentially select carbohydrate-containing foods that produce a slower rise in postprandial blood glucose, whereas glycaemic load additionally considers the amount of available carbohydrate consumed. Foods such as legumes, many intact whole grains, non-starchy vegetables and some fruits are generally favoured over refined grains, sugary drinks and sweets. A practical example is dal with vegetables and whole-grain roti rather than a meal dominated by refined rice, white bread or sweets. A systematic review and meta-analysis of randomized trials in people with diabetes found that low-GI/GL dietary patterns produced small but clinically meaningful improvements in HbA1c and several other cardiometabolic risk factors [22]. Nevertheless, GI should not be considered in isolation because portion size, nutrient density, fibre content and overall food quality remain important.

Intermittent Fasting

Intermittent fasting (IF) describes dietary approaches that alternate periods of eating with periods of fasting rather than prescribing a specific composition of foods. Common forms include alternate-day fasting, the 5:2 diet and time-restricted eating. During eating periods, individuals generally consume their usual diet, although food quality and total energy intake remain important. A recent network meta-analysis of randomized trials found that intermittent-fasting strategies generally produced weight and cardiometabolic benefits similar to continuous energy restriction, with relatively small differences between individual approaches [23]. Thus, IF can be considered an alternative method of controlling energy intake rather than a universally superior diet. Its practicality varies between individuals and prolonged fasting may be unsuitable for some people, particularly those requiring individualized management because of medications, pregnancy, eating disorders or specific medical conditions.

5:2 Diet

The 5:2 diet is a form of intermittent fasting in which food intake is unrestricted or normally consumed on five days of the week and substantially energy-restricted on two days, commonly to approximately 500-600 kcal/day. For example, a person may eat normally from Monday to Friday while following two non-consecutive low-energy days containing small portions of vegetables, curd, eggs, soup or other nutrient-dense foods. The 5:2 approach falls within whole-day fasting regimens evaluated in intermittent-fasting trials and can produce weight loss when it creates a sustained energy deficit; however, current evidence does not establish clear long-term superiority over conventional continuous calorie restriction [23]. Its appeal is that restriction is required only on selected days but hunger, compensatory eating and difficulty maintaining the fasting schedule can limit adherence.

Alternate-Day Fasting

Alternate-Day Fasting (ADF) alternates fasting or markedly energy-restricted days with unrestricted or usual eating days. Modified versions commonly permit approximately 25% of usual energy requirements on fasting days rather than

complete fasting. For example, a low-energy day may contain a small meal of vegetables with protein, followed by a usual eating day. In a one-year randomized clinical trial involving adults with obesity, ADF did not produce significantly greater weight loss or more favourable cardiovascular risk-factor changes than daily calorie restriction and dropout was higher in the ADF group [24]. More recent comparative evidence suggests that ADF may produce slightly greater short-term weight reduction than continuous energy restriction but the difference is modest [23]. Therefore, ADF may suit selected individuals but should not be presented as clearly superior to conventional energy restriction.

Time-Restricted Eating

Time-Restricted Eating (TRE) confines daily food consumption to a defined time window, commonly 6-10 hours, without necessarily prescribing specific foods or deliberate calorie restriction. For example, an individual following an 8-hour TRE schedule may consume all meals between 8:00 AM and 4:00 PM and take only non-caloric beverages outside this period. In a 12 month randomized trial of 139 adults with obesity, adding an 8 hour eating window to calorie restriction did not produce significantly greater weight loss, reduction in body fat or improvement in metabolic risk factors than calorie restriction alone [25]. TRE may nevertheless provide a simple structure that some individuals find easier to follow. Meal quality and total energy intake remain important and the optimal eating window and long-term clinical benefits require further clarification.

Gluten-Free Diet

A gluten-free diet excludes wheat, barley and rye and is essential for individuals with coeliac disease and appropriate for selected patients with other medically diagnosed gluten-related disorders. Naturally gluten-free foods include rice, maize, millet, buckwheat, potatoes, pulses, fruits, vegetables, dairy products, eggs, meat and fish. A practical Indian meal may include rice, dal, vegetables, curd and fruit while avoiding wheat-based roti and other gluten-containing foods. Gluten-free diets should not automatically be considered healthier for the general population. Commercial gluten-free products may contain less fibre and several micronutrients and may have an unfavourable macronutrient profile [26]. Therefore, unnecessary long-term gluten restriction should be avoided, while medically required gluten-free diets should emphasize naturally nutrient-dense foods rather than relying heavily on refined gluten-free products.

Low-FODMAP Diet

The low-FODMAP diet restricts fermentable oligosaccharides, disaccharides, monosaccharides and polyols that may trigger gastrointestinal symptoms through intestinal water retention and fermentation. Foods commonly reduced during the initial phase include wheat-based products, onions, garlic, certain legumes, milk containing lactose and selected fruits and sweeteners. A suitable meal might include rice with low-FODMAP vegetables, curd or lactose-free dairy where tolerated and an appropriate protein source. A systematic review and network meta-analysis of randomized trials found the low-FODMAP diet effective for improving global symptoms, abdominal pain and bloating in irritable bowel syndrome [27]. However, it is intended as a structured short-term restriction followed by systematic food reintroduction and personalization, rather than permanent broad food avoidance. Prolonged unnecessary restriction may reduce dietary variety and potentially affect nutritional adequacy and the gut microbiota.

Elimination Diet

An elimination diet temporarily removes one or more foods suspected of provoking symptoms and is mainly used in the evaluation or management of conditions such as food allergy or selected food intolerances. For example, a patient with a suspected milk-related reaction may avoid milk and milk products for a defined period under appropriate supervision, followed where appropriate by planned reintroduction or diagnostic challenge. Clinical guidelines emphasize that elimination should be based on a careful history and relevant diagnostic evaluation, should last no longer than necessary and should be followed by reassessment to avoid unnecessary food restriction [28]. Broad, unsupervised elimination of multiple food groups can increase the risk of nutrient deficiencies and may make identification of the true trigger more difficult. Thus, elimination diets are best regarded as targeted clinical tools rather than general "healthy eating" regimens.

Macrobiotic Diet

The macrobiotic diet is predominantly plant-based and traditionally emphasizes whole grains, vegetables, legumes and other minimally processed foods while restricting animal products, refined foods and added sugars; stricter versions may become highly restrictive. A typical meal may consist largely of brown rice or another whole grain with vegetables, beans and small amounts of seeds or other plant foods. In the randomized MADIAB trial among patients with type 2 diabetes, the Ma-Pi 2 macrobiotic diet produced greater short-term improvements in fasting and postprandial glucose, HbA1c and several metabolic measures than the comparison diet [29]. A subsequent six-month follow-up suggested persistence of some glycaemic and weight benefits, although the study involved only a small selected sample [30]. Therefore, these findings should not be generalized to all macrobiotic diets and restrictive versions may require attention to protein, vitamin B12, calcium, vitamin D and overall energy adequacy.

Raw-Food Diet

A raw-food diet is based predominantly or entirely on uncooked and minimally processed plant foods, commonly including fruits, vegetables, nuts, seeds, sprouted grains and legumes, with some versions excluding all animal products. A typical meal may include fresh fruit, raw vegetables, sprouts, nuts and seeds. Although such diets can be rich in fibre and phytochemicals, long-term adherence may result in inadequate energy and nutrient intake. In a survey of long-term raw-food consumers, substantial weight loss and a high frequency of menstrual irregularities were reported, particularly among those consuming very high proportions of raw food [31]. Raw diets may also provide inadequate vitamin B12, calcium, vitamin D, iron, iodine and protein if poorly planned. Cooking can improve digestibility and bioavailability of some foods; therefore, complete avoidance of cooked foods offers no established health advantage.

Fruitarian Diet

The fruitarian diet is an extreme plant-based diet in which fruits form the major part of food intake, sometimes accompanied by nuts and seeds and occasionally small amounts of other plant foods. A typical day may consist mainly of bananas, apples, oranges, grapes, dates, nuts and seeds. Fruitarian diets have been described in the medical literature for several decades but high-quality clinical evidence evaluating their health effects is essentially absent [32]. Because the diet excludes or severely limits legumes, grains and many other nutrient-dense foods, prolonged adherence may provide inadequate protein, vitamin B12, calcium, iron, zinc, iodine, vitamin D and essential fatty acids. The high reliance on fruit may also produce a large dietary sugar load. Therefore, despite the established benefits of fruit as part of a balanced diet, an exclusively or predominantly fruitarian diet cannot presently be recommended as a nutritionally complete long-term dietary pattern.

Carnivore Diet

The carnivore diet consists almost exclusively of animal-source foods such as meat, fish, eggs and, in some versions, dairy products, while eliminating fruits, vegetables, grains, legumes, nuts and seeds. A typical meal may include eggs and meat or fish, with little or no plant food. Although followers frequently report weight loss, satiety and perceived improvements in health, the evidence base remains extremely limited. A 2026 scoping review identified only nine human studies and concluded that available evidence was constrained by small samples, short follow-up and lack of control groups [33]. Potential concerns include inadequate fibre, vitamin C, folate, calcium, magnesium and iodine intake, absence of health-promoting plant phytochemicals and increases in LDL cholesterol in some individuals. Long-term safety has not been established and routine recommendation of the carnivore diet is therefore not supported by current evidence.

Alkaline Diet

The alkaline or acid-ash, diet is based on the claim that certain foods produce acidic or alkaline effects in the body. It generally encourages vegetables, fruits, nuts and legumes while restricting meat, dairy products, refined grains and processed foods. A typical meal may therefore include vegetables, fruit, legumes and nuts while minimizing animal foods. Many foods promoted by the diet are nutritious but the proposed mechanism is misleading because blood pH is tightly regulated by physiological buffering, respiratory and renal mechanisms; diet can alter urinary pH but does not meaningfully "alkalize" systemic blood pH in healthy individuals. A systematic review evaluating dietary acid load, alkaline diets and alkaline water found no evidence supporting their promotion for cancer prevention or treatment [34]. Consequently, any health benefits are more plausibly attributable to increased consumption of plant foods rather than alteration of body pH.

Blood-Type Diet

The blood-type diet proposes that individuals should select or avoid particular foods according to their ABO blood group. Recommendations vary by blood type; for example, some versions encourage a meat-rich diet for blood group O while advocating a more plant-based pattern for group A. However, the proposed biological rationale has not been supported by clinical evidence. A systematic review specifically examining blood-type diets found no evidence demonstrating that adherence to a diet matched to ABO blood group improves health or reduces disease risk [35]. Therefore, although some versions may incidentally encourage healthy foods, there is no scientific basis for prescribing dietary patterns according to ABO blood type. Dietary advice should instead be individualized according to nutritional requirements, health status, food preferences and established evidence.

Detox or Juice-Cleanse Diet

Detox diets and juice cleanses generally involve short periods of severe dietary restriction, often relying on fruit or vegetable juices, smoothies, herbal preparations or selected foods, with claims of removing "toxins," improving health or producing rapid weight loss. A typical juice cleanse may replace regular meals with several fruit and vegetable juices for a few days. A critical review found very little clinical evidence supporting commercial detox diets and identified major methodological limitations in the available studies [36]. Short-term weight loss may occur because of marked calorie restriction rather than a specific detoxifying effect and may not be sustained after normal eating resumes. Prolonged or repeated restrictive cleanses can provide inadequate protein, fibre and micronutrients. The liver, kidneys, gastrointestinal tract and other physiological systems already perform essential metabolic and excretory functions; routine detox diets are therefore unnecessary.

Weight Watchers and Other Commercial Weight-Loss Programmes

Commercial programmes such as Weight Watchers (now WW) generally use structured behavioural strategies to facilitate energy restriction, portion control, healthier food choices, self-monitoring and lifestyle modification rather than eliminating a specific macronutrient. A practical example is choosing vegetables, fruits, lean protein and whole grains within an individualized points or calorie framework while limiting energy-dense foods. A systematic review of commercial weight-loss programmes found that Weight Watchers participants achieved modestly greater weight loss than control/education groups at 12 months, although evidence for many other commercial programmes was limited [37]. Commercial programmes may help through structure, accountability and behavioural support but costs, programme dependence and variable long-term adherence should be considered. Their effectiveness ultimately depends on achieving a sustainable energy deficit while maintaining adequate nutritional quality.

Zone Diet

The Zone diet is a relatively low-carbohydrate dietary approach that traditionally recommends approximately 40% of energy from carbohydrate, 30% from protein and 30% from fat, with emphasis on low-glycaemic carbohydrates and predominantly unsaturated fats. A typical meal might combine vegetables and a modest whole-grain portion with fish, chicken or paneer and a small quantity of nuts or healthy oil. In a randomized trial comparing the Zone, Atkins, Ornish and Weight Watchers diets, all four approaches produced modest weight loss at one year, with no statistically significant difference in weight reduction between groups; greater adherence, irrespective of assigned diet, was associated with greater weight loss [38]. Thus, there is insufficient evidence that the Zone's specific macronutrient ratio provides a unique advantage over other appropriately energy-restricted diets.

Comparison of Major Dietary Patterns

The dietary patterns reviewed differ substantially in their composition, purpose, restrictiveness and strength of evidence. Mediterranean and DASH diets have among the strongest evidence for cardiovascular and cardiometabolic health, while vegetarian, pescatarian and appropriately planned plant-based diets also align well with established healthy-eating principles. Low-carbohydrate and ketogenic diets may provide short-term benefits for weight and glycaemic control in selected individuals, whereas intermittent fasting appears to be a useful alternative approach to energy restriction rather than a consistently superior strategy. Therapeutic diets have more specific indications: gluten-free diets are essential in coeliac disease, low-FODMAP diets can improve symptoms of irritable bowel syndrome and ketogenic diets have an established role in drug-resistant epilepsy. In contrast, evidence supporting blood-type, detox, fruitarian and carnivore diets is absent, insufficient or highly limited.

Importantly, the name assigned to a diet does not by itself determine its healthfulness. Food quality, energy balance, nutritional adequacy and adherence can vary substantially within the same dietary pattern. Comparative randomized-trial evidence indicates that several popular diets can produce modest weight loss and improvements in cardiovascular risk factors, particularly during the first six months but differences between individual diets are generally small and benefits frequently diminish with longer follow-up [39]. Therefore, a sustainable dietary pattern that emphasizes nutrient-dense, minimally processed foods and can be maintained over the long term may be more important than rigid adherence to a particular branded diet (Table 1).

Practical and Clinical Considerations

Selection of a dietary pattern should be individualized according to the person's health condition, nutritional requirements, cultural practices, food availability, affordability and likelihood of long-term adherence. Particular attention is required for children and adolescents, pregnant or lactating women, older adults and individuals with diabetes, chronic kidney disease, gastrointestinal disorders or a history of eating disorders. Highly restrictive diets may require assessment by a qualified healthcare professional or dietitian to prevent nutritional deficiencies and inappropriate medication-related effects.

Across apparently different dietary patterns, several common characteristics repeatedly accompany favourable health outcomes: greater consumption of vegetables, fruits, legumes, whole grains, nuts and other minimally processed foods; adequate protein and fibre; preference for unsaturated over saturated fats and lower intake of refined carbohydrates, added sugars, excess sodium and highly processed foods. The American Heart Association similarly found that DASH, Mediterranean, pescatarian and vegetarian patterns most closely aligned with its heart-healthy dietary guidance, whereas very-low-carbohydrate/ketogenic and Paleolithic patterns showed substantially lower alignment [4]. Thus, dietary quality and sustainability should generally take precedence over popular labels or short-term trends.

Evidence-Based Perspective

The available evidence suggests that the effectiveness of a dietary pattern depends less on its popular name and more on its nutritional quality, degree of energy restriction, individual suitability and long-term adherence. Mediterranean and DASH diets have comparatively strong evidence for cardiovascular and metabolic health, while appropriately planned vegetarian and other plant-rich diets can also provide substantial health benefits. Low-carbohydrate diets, ketogenic diets and intermittent-fasting approaches may be useful alternatives for selected

individuals, particularly for short-term weight or metabolic management but they have not consistently demonstrated universal long-term superiority over less restrictive healthy dietary patterns [39]. Some diets, including gluten-free, low-FODMAP and ketogenic diets, have specific clinical indications and should be distinguished from diets adopted primarily for general wellness or weight loss.

An important distinction should also be made between evidence-based dietary patterns and popular dietary claims. Blood-type and detox diets lack convincing evidence for their proposed mechanisms or specific health benefits, while evidence regarding fruitarian and carnivore diets remains particularly limited [33,35,36]. Restricting entire food groups without a clear clinical indication may compromise nutrient adequacy without providing additional benefit. Conversely, many apparently different healthy diets share common characteristics, particularly an emphasis on vegetables, fruits, legumes, whole grains, nuts and minimally processed foods and reduced consumption of highly processed foods, added sugars and excessive saturated fat or sodium [4].

Therefore, dietary counselling should move away from the concept of a universally "best diet". The preferred approach is one that is evidence-based, nutritionally adequate, culturally acceptable, affordable, compatible with the individual's health condition and sustainable over the long term. Therapeutic or highly restrictive diets should be implemented with appropriate professional guidance where necessary.

Strengths and Limitations

This review provides a broad, clinically oriented comparison of established, therapeutic and contemporary popular dietary patterns within a single article. It describes not only their principal characteristics and potential health effects but also practical food examples, nutritional concerns and the relative strength of supporting evidence. Priority was given to systematic reviews, meta-analyses, randomized controlled trials, major prospective studies and authoritative scientific statements wherever available.

However, several limitations should be acknowledged. This is a narrative rather than systematic review; therefore, a formal systematic search strategy, risk-of-bias assessment and certainty-of-evidence grading were not undertaken. The quantity and quality of evidence differ substantially between dietary patterns, ranging from large randomized trials and meta-analyses for some diets to small observational or descriptive studies for others. Definitions of several diets also vary between studies and adherence is difficult to standardize. Furthermore, many dietary interventions simultaneously alter energy intake, food quality, macronutrient composition and lifestyle behaviours, making it difficult to attribute observed outcomes to a single dietary component. Long-term safety and sustainability data remain limited for several highly restrictive contemporary diets.

CONCLUSIONS

Dietary patterns vary widely in composition, purpose, evidence base and nutritional implications. Among commonly followed approaches, Mediterranean and DASH diets have particularly strong evidence for cardiovascular and metabolic health, while well-planned vegetarian and other plant-rich diets are also consistent with contemporary healthy-eating principles. Low-carbohydrate, ketogenic and intermittent-fasting strategies can provide benefits in selected settings but are not universally superior and may require greater attention to nutritional quality, sustainability and individual clinical circumstances. Gluten-free, low-FODMAP and therapeutic ketogenic diets have important specific clinical indications and should not be generalized to individuals who do not require them.

At the other end of the spectrum, evidence remains inadequate to support health claims associated with blood-type, detox, fruitarian and carnivore diets. Ultimately, the most appropriate diet is not necessarily the most restrictive or fashionable one but one that combines scientific evidence with nutritional adequacy, minimally processed and nutrient-dense foods, individual health requirements, cultural acceptability, affordability and long-term adherence.

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