

# “Relation between Dash Diet and Ayurvedic Diet in the Management of Hypertension- A Review”

Dr.Priyanka S. Ghonge<sup>1</sup>; Dr. S. K. Chopkar<sup>2</sup>

1.PG Scholar, Swasthavritta and Yoga Dept.

2.Professor and HOD, Swasthavritta and Yoga Dept.

9423105104,

[skchopkar@gmail.com](mailto:skchopkar@gmail.com)

Vidarbha Ayurved Mahavidyalaya Amravati, M.S. India.

\*Corresponding Author:

[priyankaghonge11@gmail.com](mailto:priyankaghonge11@gmail.com)

## Abstract:

Hypertension (HTN), commonly known as high blood pressure, is a chronic medical condition defined by a sustained elevation in arterial blood pressure. Hypertension is one of the most common lifestyle disorders in the world today. Systemic arterial hypertension is recognized as the most significant modifiable risk factor for overall morbidity and mortality. It is associated with severe health complications such as coronary heart disease (CHD), congestive heart failure (CHF), peripheral arterial disease, stroke, kidney failure, and it is a leading cause of premature death.

Ayurveda and the DASH (Dietary Approaches to Stop Hypertension) diet shares approach to managing hypertension by focusing on natural, holistic methods that address both the root causes and symptoms of the condition. Combining the two systems provides a comprehensive and personalized approach to preventing and managing hypertension while promoting overall well-being.

**: Keywords-** Hypertension, BP, Lifestyle disorders, *Raktachapa*, Silent killer, *Dhamnipraticay*

## Introduction-

Hypertension is a chronic condition that often develops silently, with systemic blood pressure rising above normal levels. Alarmingly, fewer than half of those affected are aware of their condition, leaving many undiagnosed and untreated. While, modern treatment methods are effective in managing hypertension, long-term use of conventional antihypertensive drugs often leads to undesirable side effects. These adverse effects can result in poor tolerance, non-compliance, or even discontinuation of treatment, making it difficult for patients to achieve sustained control over their blood pressure.

Dietary and lifestyle interventions are important behavioural strategies for cardiovascular risk reduction. The Dietary Approach to Stop Hypertension (DASH) is a dietary pattern that promotes the consumption of fruits, vegetables, and low-fat dairy products; includes whole grains, poultry, fish, and nuts; and attempts to reduce the intakes of red meat, sweets, sugar-containing beverages, total fat, saturated fat and cholesterol. Thus, the DASH dietary pattern promotes a higher intake of protective nutrients such as K, Ca, Mg, fibre and vegetable proteins and, at the same time, a lower intake of refined carbohydrates and saturated fat. Furthermore, feeding trials have demonstrated the additive effects of salt restriction on the efficacy of the DASH dietary pattern in reducing BP. The DASH diet is recommended by the American Heart Association for the non-pharmacological management of hypertension.

Ayurveda, the ancient Indian system of medicine, emphasizes the importance of a holistic approach to health, in *Trayopstambha*, which includes diet (*Aahar*). In Ayurveda, diet plays a crucial role in maintaining overall well-being and can significantly impact hypertension management. By understanding the principles of Ayurvedic nutrition and adopting a specific diet, individuals with hypertension can empower

themselves to lead a healthier life. In Ayurveda, based on its clinical presentation and underlying causes, hypertension can be correlated with *Raktagata Vata* and is considered a *Tridoshaja Vyadhi* (a disorder involving the imbalance of all three doshas). Ayurvedic principles emphasize balancing these doshas to address the root cause of the condition rather than merely treating its symptoms.

**Aim:**

- To analyse and correlate the principles of the DASH diet and Ayurvedic dietary concepts in the management of hypertension and to explore their integrative potential.

**Objectives:**

- To review the principles of the DASH diet in the management of hypertension.
- To establish a conceptual correlation between nutrient-based recommendations and Dosha-based dietary management.
- To explore the scope of integrative dietary approach for better management and prevention of hypertension.

**The Significance of Ayurvedic Diet in Hypertension:**

In Ayurveda, it is believed that imbalances in the doshas (Vata, Pitta, and Kapha) contribute to various health conditions, including hypertension. A proper diet can help restore balance and alleviate symptoms. Here's why diet is essential in managing hypertension:

1. **Balancing Doshas:** Ayurvedic diet aims to balance the doshas, promoting harmony within the body. A well-balanced diet helps regulate blood pressure and reduces the risk of complications associated with hypertension.
2. **Nutrient-Rich Foods:** A diet rich in essential nutrients, such as vitamins, minerals, and antioxidants, supports overall cardiovascular health. Including foods like fruits, vegetables, whole grains, and lean proteins provides the body with vital nutrients to maintain optimal blood pressure levels.
3. **Reducing Inflammatory Response:** Certain foods can trigger inflammation in the body, contributing to hypertension. By eliminating or minimizing inflammatory foods like processed sugars, refined oils, and excessive sodium, an Ayurvedic diet helps reduce inflammation and promotes heart health.
4. **Weight Management:** Maintaining a healthy weight is crucial in managing hypertension. Ayurvedic dietary guidelines emphasize portion control and choosing nutrient-dense, low-calorie foods to support weight management, which can positively impact blood pressure.

**DASH Diet in Hypertension:**

DASH (Dietary Approaches to Stop Hypertension) is a scientifically designed diet to reduce blood pressure.

**Principles:**

- Low sodium intake.
- High potassium, magnesium, calcium.
- Fruits and vegetables (4-5 servings/day)
- Whole grains.
- Low fat dairy.
- Reduced saturated fats.

**Mode of action:**

- Reduced fluid retention.
- Improved endothelial function.
- Decreased peripheral vascular resistance.
- Controls body weight.

**Correlation between DASH and Ayurvedic Diet:**

DASH Concept	Ayurvedic Equivalent
Salt Restriction	Lavana Nishedha
High fruits and vegetables	Phala-Shaka sevana
Whole grains	Yava, Godhuma
Low saturates fats	Snigdha Aahar Niyantaran
Weight control	Medohar Aahar
Lifestyle advice	Dincharya and sadvritta

**Differences between DASH and Ayurvedic Diet:**

DASH	Ayurveda
Nutrient based approach	Dosha based approach
Standard guidelines	Individual (Prakruti-based)
Clinical trials	Classical textual basis
Focus on minerals	Focus on Agni and Ama

**Similarities between DASH and Ayurvedic Diet:**

- Emphasis on natural, fresh food.
- Restriction of excess salt.
- Plant based diet predominance.
- Weight management.
- Lifestyle modification.

Here's how the DASH diet and Ayurvedic principles can work together to manage hypertension:

**1. Emphasis on Plant-based Foods**

Include a variety of fresh fruits and vegetables, as they are rich in fibre, vitamins, and minerals. Opt for leafy greens, such as spinach, which is excellent sources of potassium and magnesium. Consume antioxidant-rich berries, such as blueberries and strawberries, known for their cardiovascular benefits.

- **DASH Diet:** Focuses on whole, plant-based foods like fruits, vegetables, whole grains, nuts, and low-fat dairy.
- **Ayurveda:** Advocates Sattvic foods-fresh, natural, and minimally processed items. These foods calm the mind, reduce stress, and help balance Pitta and Vata doshas.
- **Integration:** Use fresh, organic produce and avoid overly processed foods to align both approaches.

**2. Reduce sodium intake and Ayurvedic Rasa (Taste)**

- **DASH Diet:** Reduces sodium intake to lower blood pressure.
- **Ayurveda:** Recommends limiting salty (Lavana rasa) and sour (Amla rasa) tastes for hypertension, as these aggravate Pitta and Kapha.
- **Integration:** Substitute salt with Ayurvedic herbs and spices such as cumin, coriander, fennel, and turmeric to enhance flavour without increasing sodium.

**3. Inclusion of Potassium-Rich Foods**

Mechanisms Linking Diet to BP Control:

Sodium and Fluid Balance-

High sodium increases extracellular fluid volume → raises BP. Both diets reduce sodium intake — a key mechanism in BP reduction.

- **DASH Diet:** Promotes potassium-rich foods like bananas, oranges, spinach, and sweet potatoes to balance sodium levels.
- High potassium (abundant in DASH foods like leafy greens, fruits, legumes) enhances sodium excretion and relaxes blood vessels.
- **Ayurveda:** Recommends foods that are Madhura (sweet in taste) and cooling, such as ripe fruits, coconut water, and leafy greens, to pacify Pitta.
- **Integration:** Include potassium-rich, sweet, and cooling foods like bananas, cucumbers, and pomegranates to balance doshas.

#### 4. Avoidance of Saturated Fats and Processed Foods

- **DASH Diet:** Limits unhealthy fats to reduce cardiovascular risks. Favor Heart-Healthy Fats
- **Ayurveda:** Advises avoiding heavy, fried, and processed foods that increase Kapha and Ama (toxins).
- Choose healthy fats like ghee (clarified butter), coconut oil, and olive oil in moderation.
- Include omega-3 fatty acids from sources like flaxseeds, chia seeds, walnuts, and salmon.
- **Integration:** Use light, easily digestible oils like ghee or olive oil in moderation, as they are both heart-healthy and align with Ayurvedic recommendations.

#### 5. Stress Management and Lifestyle Alignment

Stress and Digestion: Ayurvedic emphasis on digestive balance (Agni) and stress-reducing practices (meditation, yoga) may lower sympathetic overactivity — a contributor to hypertension.

- **DASH Diet:** Encourages lifestyle changes, such as regular exercise, to complement dietary adjustments.
- **Ayurveda:** Stresses the importance of mental balance and recommends practices like meditation, pranayama (breathing exercises), and yoga to calm the mind and reduce Vata.
- **Integration:** Combine the DASH diet with Ayurvedic practices like: Abhyanga, Using calming oils like sesame or coconut oil.
- **Pranayama:** Techniques like *Nadi Shodhana* (alternate nostril breathing), *Bhramari* for stress relief.
- **Herbal Teas:** Use Ayurvedic herbs like Tulsi, Ashwagandha, and Brahmi, which support heart health and reduce stress.

#### 6. Individualized Approach

- **DASH Diet:** Provides general guidelines suitable for most people.
- **Ayurveda:** Stresses personalized treatment based on one's Prakriti (constitution) and the specific imbalance causing hypertension.
- **Integration:** Tailor the DASH diet to your Ayurvedic constitution:

**Balancing Doshas:** Ayurvedic diet aims to balance the doshas, promoting harmony within the body. A well-balanced diet helps regulate blood pressure and reduces the risk of complications associated with hypertension.

- **Vata Types:** Warm, grounding, and moist foods like soups and stews; avoid raw or dry foods.
- **Pitta Types:** Cooling, hydrating foods like cucumbers, coconut water, and leafy greens; avoid spicy and fried items.
- **Kapha Types:** Light, spicy foods to stimulate metabolism; reduce dairy and sweet foods.

#### Mindful Eating Practices:

Practice mindful eating by focusing on your meal, chewing thoroughly, and avoiding distractions.

Avoid overeating and maintain a regular eating schedule.

Sip warm herbal teas like ginger or hibiscus tea, known for their blood pressure-lowering properties.

#### 7. Use of Ayurvedic Herbs

- **DASH Diet:** Recommends nutrient-dense foods to manage hypertension.
- **Ayurveda:** Suggests herbs with cardioprotective and calming properties:  
Examples:

- Arjuna: Strengthens heart muscles and reduces blood pressure.
- Ashwagandha: Reduces stress and helps manage Vata.
- Brahmi: Calms the mind and supports circulation.
- **Integration:** Incorporate these herbs as supplements or teas, under the guidance of a qualified practitioner.

### Conclusion:

The DASH diet and Ayurveda share a focus on holistic health and natural, balanced eating. Combining the two approaches can help manage hypertension effectively by addressing both physiological and psychological aspects. The DASH diet provides evidence-based nutritional strategies, while Ayurveda offers individualized, dosha-specific guidance and stress management techniques for long-term health. Together, they can be highly beneficial for long term hypertension.

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