

A Review on *Samyoga Viruddha* (Combination Incompatibility)

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ABSTRACT

Introduction: In Ayurvedic medicine, the term "*Viruddha Ahara*" refers to incompatible food combinations that can have adverse effects on health. Among these "*Samyoga Viruddha Ahara*" highlights the incompatibility caused by certain food combinations when consumed together. Understanding and avoiding these combinations are essential for maintaining health and preventing various diseases. **Objective:** The purpose of this review is to explain the principles behind *Samyoga Viruddha Ahara*, its health consequences and underlying Ayurvedic reasoning. It also analyses modern scientific perspectives on food incompatibilities in order to connect concept of *Samyoga Viruddha Ahara* with current understanding. **Methodology:** A literature review was carried out utilizing Ayurvedic books such as Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, etc. Contemporary scientific research publications were also reviewed in order to analyse the biochemical and physiological effects of incompatible food combinations. **Discussion:** *Samyoga Viruddha Ahara* with scientific perspective provides knowledge regarding combinations of different kinds of food and their impact on health and causation of diseases. This knowledge helps in balanced approach to diet and nutrition leads to better health outcomes and prevention of diseases. **Conclusion:** *Samyoga Viruddha Ahara* Conceptual understanding with scientific approach will give an idea of the relevance of food and food combinations in maintaining health.

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KEYWORDS: *Ahara, Combinations, Diet, Food, Samyoga, Viruddha, Incompatibility*

INTRODUCTION

The three pillars of *Shareera - Ahara, Nidra, and Brahmacharya* - are the fundamental elements of health. Ahara is necessary for maintaining health. The Upanishads refer to it as *Brahma*, while Kashyapa refers to it as *Mahabhaisajya*. It ensures the continued It maintains the production and functions of *Sapta Dhatu* and *Ojas*. All of the aforementioned features of *Ahara* are referred to as "*Hitaahara*," while "*Ahita Ahara*" is the opposite of them. "*Viruddha Ahara*" is categorized as *Ahita Ahara*. *Viruddha Ahara* plays a significant role in the development of various types of diseases. Today's dietary habits and preparation techniques clearly differ from those of the past due to changed lifestyles, urbanization and an obsession with western culture. Which are maybe having qualities of *Viruddha Ahara*. It is a broad term with 18 distinct types.^[1] *Samyoga Viruddha* is an incompatibility in combinations that has a negative impact on health. Consuming *Samyoga Viruddha*

Ahara on a regular basis has adverse impacts on the body.

Objective:

This review aims to illustrate the concepts of *Samyoga Viruddha Ahara*, its health consequences and the Ayurvedic logic. It also analyses contemporary scientific viewpoints on dietary incompatibilities in order to link the concept of *Samyoga Viruddha Ahara* to current knowledge.

MATERIALS AND METHODS:

A literature review was carried out using Ayurvedic classical treatises such as Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya etc. Current scientific research publications have been reviewed for the biochemical and physiological impacts of incompatible food combinations. Recent research publications were reviewed. These papers are discovered and referred to through research portals

and search engines like Google, as well as research publications available in the institute library.

Concept of *Samyoga*:

Samyoga refers to the combining of two or more items.^[2] A word *Samyoga Viruddha* describes the negative effects that can come from the incorrect combination of two or more substances. While each substance may be safe or useful on its own, their combination can cause an adverse effect due to incompatible properties or actions. This incompatibility occurs when substances are mixed or consumed together, which Ayurveda refers to as "*Samyoga Viruddha*." It has diverse effects, either favourable or negative, depending on the properties of the two or more foods to be combined. For example, is *Vamana* recommended for *Swasthas* in the *Vasantha Rutu*. If it is done other than, it will *Vasantha Rutu* have a detrimental effect on the

individual. It demonstrates the effects of *Vamana Karma* and *Vasantha Rutu Samyoga*.

Chakrapani Datta defines *Samyoga Viruddha* as follows:

According to Chakrapani Datta, *Samyoga Viruddha* refers to the adverse effects of combinations that occur regardless of dose, frequency and potency etc.^[3] In other words, *Samyoga Viruddha* do not require any particular circumstances to become adverse, such as dose or *Samskara* (processing); instead, that require the association, combination, or union of two or more. Despite being essentially, a mixture of two things, some items, such as fish and milk, have frequently been defined as *Guna Viruddha* (property incompatibility) rather than *Samyoga Viruddha*.^[3] This combination does not expect a specific dose or *Samskara* to be considered *Viruddha*, as honey and ghee require the same quantity to become *Viruddha*.^[4]

Table No.1: Examples of *Samyoga Viruddha* in classical text

Sl. No.	Examples	C.S.	S.S.	A.H.	A.S.
1.	Milk + Fish	+	+	+	+
2.	Domesticated, wetland, or aquatic creature flesh combined with Honey, <i>Tila</i> , <i>Guda</i> , Milk, Black gram, Garden Radish, Lotus stalks or sprouted grains.	+	+	+	+
3.	<i>Rohini Shaka</i> /The flesh/Pigeon fried in rape-seed oil with honey and milk.	+	+	-	+
4.	Eating garden radish/Garlic/Moringa/Large basil/Holy basil/Surasa then drinking Milk	+	-	+	+
5.	<i>Jatuka</i> - Shaka and ripe <i>Lakucha</i> with honey or milk.	+	+	-	-
6.	Ripe <i>Lakucha</i> with Black Gram Soup, <i>Guda</i> , Ghee and Milk	+	-	-	+
7.	Mango, Indian hog-plum, pomelo, <i>Lakucha</i> , Bengal current, Lantain, Lemon, Small Jujube, Ceylon oak, Showy dellenia, Jambul, Wood apple, Tamarind, <i>Paravata</i> , Walnut, Jack-fruit, Coconut, Pomegranate, <i>Amalaki</i> and such other substances and all sour things, either liquid or otherwise.	+	-	+	+
8.	<i>Kusumbha Shaka</i> with sugar wine, <i>Maireya</i> with honey	+	-	-	+
9.	Crane's flesh with Varuni wine/ <i>Kulmasha</i> pulse	+	-	-	+
10.	<i>Kakamachi</i> (black night shade) with honey	+	-	+	+
11.	Honey with hot water	+	+	-	+
12.	<i>Bhallataka</i> with hot water	+	-	+	+
13.	<i>Kakamachi</i> with <i>Pippali</i> and <i>Maricha</i>	-	+	+	+
14.	<i>Nadishaka</i> with <i>Kukkuta</i> flesh and <i>Dadhi</i>	-	+	-	-
15.	<i>Sura</i> with <i>Khichadi</i> / <i>Khira</i>	-	+	+	+
16.	<i>Guda</i> prepared from Sugarcane with Sugar or Fish	-	+	-	-
17.	<i>Guda</i> with Black night shade (<i>Kakamachi</i>)	-	+	+	-
18.	Honey with Garden Radish	+	-	-	-
19.	Hog Meat with <i>Guda</i> and Honey	-	+	-	-
20.	Milk taken with Garden radish, Unripen mango, Jambil fruit, Meat of Iguana, Rabbit & Hog	-	+	-	-
21.	Ripe <i>Lakucha</i> with fruits of <i>Palmyra</i> .	-	+	-	-
22.	Milk with Fruit of <i>Lakucha</i>	+	+	-	-
23.	Curd with Fruit of <i>Lakucha</i>	-	+	-	-
24.	Butter milk with <i>Lakucha</i> Fruit	-	+	-	-

25.	Black Gram with <i>Lakucha</i> Fruit	+	+	-	+
26.	Green vegetable with milk	+	+	+	+
27.	Hog meal with Pangdin meat	-	-	+	-
28.	Meat of spotted deer with meat of peacock	-	-	+	-
29.	Black gram with garden radish	-	-	+	+
30.	Rhizomes of lotus with <i>Ankwita Dhanya</i> (corn, pulse)	-	-	+	-
31.	Fruit of small jack with black gram, <i>Guda</i> , curd, milk and ghee.	+	-	+	+
32.	Ripe banana with butter milk curd or fruits of palm	-	-	+	+
33.	Honey with seed of lotus Honey with <i>Asava</i> of date (date vine) and Sugar vine	-	-	+	+
34.	Pangolin meat with hog meat and fruits of small Jujube	-	-	-	+
35.	Peacock meat with spotted deer meat and curd.	-	-	-	+
36.	<i>Kanje</i> with <i>Tila Pudi</i> / <i>Purana Roti</i>	-	-	-	+
37.	Milk with salt	-	+	-	+
38.	Black gram with garden radish.	-	-	+	+
39.	Shaka of radish with butter.	-	-	-	+
40.	Vine of date/grape-vine with Indian spinach (shaka)	-	-	-	+
41.	Fruit of black night shade (<i>pilu</i>) with Kaira fruits	-	-	-	+
42.	Curd with hot drug	-	-	-	+
43.	Vine with hot potential drug	-	-	-	+
44.	Rainy water with after Honey, Ghee	-	-	-	+
45.	Old and new <i>Dhanya</i> (corn, pulse etc) with each other.	-	-	-	+
46.	White gourd (<i>Kushmanda</i>) etc. fruit and milk	-	-	-	+
47.	Ripened and unripened <i>Dravya</i> .	-	+	-	-
48.	Oil with milk	-	+	-	-

Abbreviations: C.S – Charaka Samhita, S.S – Sushruta Samhita, A.H – Ashtanga Hridaya, A.S – Ashtanga Sangraha.

Table No.2: Examples of Frequently following *Samyoga Viruddha ahara* in classical text and Other extratextual examples

Frequently following	Other extratextual examples
<i>Kadali Phala Payasaa</i> (Banana with milk)	Intake of hot brownie + ice-cream
<i>Amla Payasaa Saha</i> (Milk shakes)	Intake of fruit salad
<i>Kukkuta Dadhini</i> (Chicken with curd)	Intake of raita
<i>Madhucha Ushnodaka Anupanam</i> (Honey with hot water)	Intake of fruit salad with ice cream
<i>Navaneetam Moolashakam</i> (Sandwich, Burger)	Chewing of areca nut + betel leaf+ tobacco
	Intake Of Dahi vada
	Sugarcane juice with lemon and ginger

Viruddha Ahara And Diseases:

Table no.3: Diseases caused by intake of *Viruddha Ahara* and their references:

Sl. no.	Diseases	References
1	<i>Unmada</i>	Cha. Sa. Chikitsa Sthana 9/4
2	<i>Visarpa</i>	Cha. Sa. Chikitsa Sthana 21/115
3	<i>Kushtha</i>	Cha. Sa. Chikitsa Sthana 7/4
4	<i>Krimi</i>	Su. Sa. Uttara Sthana 54/3
5	<i>Apasmara</i>	Su. Sa. Uttara Sthana.61/4
6	<i>Arsha</i>	Su. Sa. Nidana Sthana 2/4(4)
7	<i>Udara Roga</i>	Su. Sa. Nidana Sthana 2/5(5)
8	<i>Gara visha</i>	A. H. Sutra Sthana 7/29
9	<i>Vatarakta</i>	A. H. Nidana Sthana 16/1
10	<i>Grahini dosha</i>	A. H. Chikitsa Sthana 10/92
11	<i>Ashta Mahagada</i>	A. Sa. Sutra Sthana 9/11

Abbreviations: Cha. Sa – Charaka Samhita, Su. Sa – Sushruta Samhita, A. H – Ashtanga Hridaya, A. Sa – Ashtanga Sangraha

DISCUSSION

The incompatible mentioned in classics are not very much in practice now a days, so attempt should be made to identify such dietary incompatibilities. Both healthy and unhealthy individuals need to be aware of these things and avoid those. The first and most important course of treatment is *Nidana Parivarjana*, or avoiding the disease's causes. It is important to recognize that possessing literary knowledge and up-to-date comprehension is essential when doing *Samyoga Viruddha Ahara*.^[5]

Current under standing

Topography deals with scientific studies of combination of foods and its consequences. It tells about the various combinations of basic categories of food.^[6]

Scientific Perspectives

Modern scientific research provides insights into the potential adverse effects of incompatible food combinations. For example, eating foods high in protein and carbohydrates together can cause fermentation and gas production in the intestines, which can be uncomfortable and result in bloating.^[7] Furthermore, the metabolism and absorption of nutrients might be impacted by specific dietary combinations. For example, when combined with dairy products, the phytic acid found in whole grains might prevent the body from absorbing nutrients like zinc and iron.^[8] Food combinations have been found to affect metabolism and digestion in recent studies. For example, a high-protein meal may affect blood sugar levels by delaying the absorption of carbs. This is due to the fact that distinct digestive enzymes and conditions are needed for proteins and carbs, which might slow down the digestive process as a whole.^[9] Certain Combinations of foods can either improve or decrease the absorption of nutrients. For example, Iron-rich foods can be better absorbed when combined with foods high in vitamin C, whereas foods high in calcium can have the opposite effect. This is because iron and calcium combine to generate insoluble complexes that lower the bioavailability of both minerals.^[10]

Regular use of *Viruddha Ahara* may cause molecular inflammation by altering the eicosanoid pathway, which increases arachidonic acid levels and increases prostaglandin-2 and thromboxane.^[11] Dysregulated eicosanoid activation is cause for asthma, rheumatoid arthritis, and inflammatory bowel disease (IBD). Changes in these eicosanoids levels can cause vascular homeostasis to be disturbed, which in turn can lead to the development of thrombosis and atherosclerosis.^[12]

Examples

Citrus with milk: The chemistry of these two substances differences in pH accounts for their incompatibility. Citrus fruits, such as oranges and lemons, have highly acidic pH levels, frequently below 3, whereas milk has a slightly acidic pH ranging from 6.5 to 6.7. The acidic environment created when acidic materials like citrus fruits are added to milk can cause milk proteins like casein to denature and coagulate. Discomfort and digestive problems may result from this curdling action.^[13] It is not recommended because sour fruits (such oranges, strawberries, lemons, etc.) contain vitamin C and citric acid, which when coupled with milk can coagulate and cause acid reflux, allergies, chest congestion, colds, and coughs.

Chicken with curd: Although Ayurveda offers a theoretical foundation, there is no current scientific data regarding the precise pairing of chicken and curd. However, some comprehension of possible relationships and health impacts can be obtained through insights from nutritional science. **Protein and Fermentation:** Ingesting dairy products like curd along with high-protein foods like chicken can cause fermentation in the stomach. Proteins need a more acidic environment and take longer to digest, and curd's lactose fermentation can cause bloating and gas^[14]. This may aggravate digestive issues and interfere with the absorption of nutrients. The absorption of nutrients can be impacted by specific combinations. For example, curd's calcium content can inhibit the absorption of iron from chicken. The bioavailability of important nutrients may be decreased as a result of this interaction^[15]. **Microbial Activity:** Probiotics in curd helps to maintain a healthy microbiome in gut, which in turn improves gut health. Nonetheless, the probiotic advantages of curd may be impacted by the presence of chicken proteins, which may change the microbial balance^[16].

Milk and Yogurt: Combining milk and yogurt consumption can cause the milk to curdle inside the stomach, which could cause discomfort and vomiting.^[11]

Research studies:

An animal experimental Study was conducted to evaluate effect of *Samyoga of Kadali Phala and Godugdha* on wister albino rats where two groups are made case and control each consisting 6 animals. Control groups are normally fed and case groups were administered the *Samyoga of Kadali Phala and Godugdha* consecutively for 28 days and study revealed that Statistically significant increase in PCV, SGOT & Urea, decrease in Creatinine and significant decrease in the food intake, faecal wet weight, faecal

water, food conversion ratio, mild to moderate myocarditis in the sections from heart, diffused micro fatty changes in sections from liver and mild to moderate increase in the white pulp in sections from spleen are suggestive of some toxicological implications of the combination.^[17]

World health organization international agency for research on cancer published IARC monographs on the evaluation of carcinogenic risks to human's world health organization international agency for research on cancer Lyon, France 2004 volume 85 consists Betel-quid and Areca-nut Chewing and Some Areca-nut-derived Nitrosamines. where they have compiled different studies done on Evaluation of carcinogenic effect of betel quid, areca nut, tobacco chewing in different regions for example:

In the first phase of a study carried out in 1967–1971 in Ahmedabad, India, 57,518 workers in the textile sector were studied. Two years later, Bhargava et al. (1975) re-examined 43,654 workers out of 57,518. Thirteen additional occurrences of oral cancer were detected, all of which occurred in people who smoked tobacco or chewed betel quid.^[18]

Another study by Ahluwalia and Duguid (1966) used data from the Kuala Lumpur Institute for Medical Research to report on the distribution of malignancies among different ethnic groups in the Malay Peninsula (Malays, Chinese, and Indians). Records of malignancies caused by betel quid and areca nut chewing, both with and without tobacco, were examined. Among 912 cancers of all sites in Indians who are known to chew betel quid with tobacco, 306 (33.6%) were oral cancers. Among 776 cancers of all sites in Malays who are known to chew betel quid without tobacco, 74 (9.5%) had oral cancer.^[18]

A case-control study conducted in 1986 and 1992 on 247 cases of oropharyngeal cancer (all men) registered in the population-based Bhopal Cancer Registry and 260 population controls found no significant risk of oropharyngeal cancer linked with chewing betel quid with tobacco. Those who chewed more than 10 quids with tobacco per day (odds ratio, 3.6; 95% confidence interval [CI], 1.7-7.4) and those who chewed quids with tobacco for more than 30 years (odds ratio, 3.1; 95% CI, 1.6-5.7) faced statistically significant risks (Dikshit and Kanhere, 2000). As a result, *Samyoga Viruddha* has no harmful effects when ingested in little doses or for short periods of time.^[18]

A case-control study of 163 male lung cancer patients from the population-based Bhopal cancer registry and 260 population controls found no link between chewing betel quid with tobacco and lung cancer. As

a result, the mouth cavity is more likely to develop cancer than other organs.^[18] In 1998-1999, a case-control study was done in Chennai, India, with 205 invasive cervical cancer cases and 213 age-matched hospital controls. A twofold non-significantly elevated risk was noted for chewing betel quid with and without tobacco. However, a statistically significant association was observed among individuals who chewed more than five quid with or without tobacco every day, and the dose-response relationship was also significant ($P = 0.02$).^[18]

Malhari K, Sirdeshpande, and Vidyadhish Anantrao Kashikar's article Critical review on *Samyoga Viruddha* (combination incompatibility) with special emphasis on the carcinogenic effect of the combination of betel quid, areca nut, and tobacco compiled the research conducted by WHO to see the effect of the combination of betel quid, arena nut, and tobacco.^[19] The article indicated that tobacco is a complicated plant material in terms of chemical composition. No other plant substance has been researched as thoroughly in human history.^[19] Gutkha, a mixture of areca nut, slaked lime, paraffin, and catechu, as well as tobacco, is virtually poisonous because it contains 4000 chemicals, at least 40 of which are carcinogenic.^[19] It can produce non-healing ulcerative lesions in oral cavity, including the cheeks, lips, tongue, hard palate, floor of the mouth, and soft palate. It can also damage the esophagus, larynx, and kidney. The *Samyoga Viruddha* character of tobacco mixed with others is most likely due to the influence of the combination's pharmacologically active components. The combination of polyphenols (responsible for the nut's astringent flavour) and free calcium hydroxide, iron, and magnesium (from slaked lime), as well as catechu-tannic acid and acacatechin (from catechu), may be responsible for this hostile nature. When these components are ingested separately, they do not produce the same adverse effect.^[19]

People frequently develop non-cancerous conditions such as bronchial asthma, hypertension, heart disease, and stroke. While blood artery narrowing can induce gangrene, severe blood supply disruption can result in a stroke. Women who consume gutkha during pregnancy may have low-birth-weight kids.^[20] Thus, it causes practically all of the diseases stated by Charaka while also enlisting the harmful effects of *Viruddha Ahara*.^[19]

CONCLUSION

The concept of *Samyoga Viruddha Ahara* is still important in Ayurvedic nutrition. Avoiding unsuitable meal combinations may help people stay healthy

generally, avoid the development of toxins, and maintain Doshik equilibrium. To close the knowledge gap between modern nutritional science and traditional Ayurvedic medicine, more study is required. Clinical experiments and biochemical investigations may be necessary to comprehend the mechanisms underlying the deleterious effects of eating incompatible foods together.

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