

An Analytical Review on *Ahita Aahara* w.s.r. to *Viruddha Aahara* (Food Incompatibility)

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Abstract

Food is that which is consumed in sufficient quantity and quality to meet the dietary needs for a "healthy and active life". From time immemorial *Anna/Aahara* (food) is given prime importance and is considered as *Brahma* in *Taittiriya Upanishad*, i.e., food is responsible for life of all beings. As our *Deha* (body) and *Aahara* (food) are *Panchaboutika* (five great elements) in composition it is essential to take balanced diet to lead healthy life. Thus *aahara vidhi vidhanas* (eating habits) should be followed to achieve the condition of being sound in body, mind and spirit for *Chaturvidha Purusharta Sadhana* (to achieve four requisites for life). As the phrase goes *WE ARE WHAT WE EAT...*, i.e., our bodily constitution and psychological atmosphere are determined by what and how we eat? *Ayurveda* has explained *Aahara* as premier among *Trayopasthambas* (three subpillars of body). Further emphasizing on *Aahara vidhi vidhana*, *Ashta Aahara Visheshas* *Ayatanas* (rules for intake of food and determinants of food) and *Prabhava* of *Aahara* (special action) on body, i.e., *Hita* (wholesome) or *Ahita* (unwholesome) *Aahara* which causes *Sukha* (happiness) or *Dukha* (sorrow) to body. But do not expel out and acts contradictory to body are *Viruddha Aahara* (incompatible food). In this article an honest effort has been made to identify incompatible food in day-to-day dietary habits and categorize them into *Samyoga* (combination), *Samskara* (preparation) and *Parihara* (rules intake for) *Viruddha* (incompatible) according to classics and its untoward effect on immune, cellular metabolism, endocrine, digestive, circulatory systems leading to different life style disorders.

Keywords: *Aahara vidhi vidhana*, *Viruddha Aahara*, *Hita* and *Ahita Aahara*, *Samyoga*, *Samskara*, *Parihara* *Viruddha*

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INTRODUCTION

We are what we eat. This explains the importance of food and food habits in life. It is our common experience that when we take proper food in proper time will enhance our health but whenever we take incompatible diet it results into ill health.

Further *Ayurveda* also mentioned that life of all living beings is food, strength, longevity, vitality, depends on food. While classifying *Ahara*, *Ayurveda* classified food into two groups based on effect on body and mind as; wholesome (*Hita Aahara*) and unwholesome is nonconductive to health.

The *Viruddha Ahara* is a type of unwholesome (*Ahita Aahara*) food, which has a major role in production, evolution and manifestation of many diseases. Taking such unwholesome incompatible food is called *Viruddhashanam*.

Viruddhashanam is to be considered similar to poison (*Visha*) and artificial poison (*Garavisha*) [1].

In general *Viruddha* or *Vairuddhika* means opposed, hindered, unpleasant, adverse, incompatible etc. When it is applied to food, it denotes that eating incompatible food.

OBJECTIVES

To review the *Viruddha Ahara*.

To analyse the *Viruddha Ahara* on the basis of incompatible diet.

To enlist the commonly practiced *Viruddha Ahara* in day-to-day life.

MATERIALS AND METHODS

Systematic review of *Viruddha Ahara* from classical texts of *Charaka*, *Sushruta*, *Vagbhata* and texts on modern dietetics has been done.

REVIEW OF LITERATURE

Classification of *Viruddha Ahara* [2]

Broadly classified into:

1. *Paraspara Guna Viruddha*
2. *Samyoga Viruddha*
3. *Samskara Viruddha*
4. *Desha Kala Matra Viruddha*
5. *Swabhava Viruddha*

Classical Illustration of *Viruddha Ahara* [3]

1. *Desha* (place): intake of *Ruksha* and *Teekshna* substance in *Jangala*, *Sheeta* and *Snigdha* in *Anoopa Desha*.
2. *Kala* (time): intake of *Sheeta* and *Rooksha* substances in *Sheetakala* (winter) and *Ushna* and *Katu* in *Ushnakala* (summer).
3. *Agni bala* (power of digestion): intake of heavy food when digestive power is mild
4. *Matra* (dosage): intake of honey and ghee in equal quantity.
5. *Satmya* (habit): intake of *Swadu Sheeta* by person accustomed to pungent hot substance.
6. *Dosha* (bodily humour): utilization of drugs and diet and regimens having similar qualities with *doshas* but in variance with habit of individual.
7. *Samskara* (preparation): meat of peacock roasted in castor oil.
8. *Veerya* (potency): substances having *sheeta veerya* in combination with the *ushna veerya*.
9. *Koshta* (bowel): administration of mild purgative in a small dose for a person of *krurakosta*.
10. *Avastha* (state of health): intake of *vata* aggravating food by a person after exhaustion sexual act and physical exercise.
11. *Karma* (order): when a person takes food before his bowel and urinary bladder are empty or when he does not have appetite.
12. *Parihara* (prescription): intake of hot things after taking pork and cold things after taking ghee.
13. *Upachara*: intake of *sheeta jala* after *snehapana*.
14. *Paka* (cooking): preparation of food with bad rotten fuel and under cooked.
15. *Samyoga* (combination): intake of *amla* substance with *ksheera*.
16. *Hrit* (palatability): any substances, which is not pleasant in taste.

17. *Sampat* (richness of quality): intake of substance that are not matured, over matured, putrefied.
18. *Vidhi* (rules of eating): taking food against rules of dietetics.

Some other classical and important examples of *Viruddha Ahara* [4]:

1. Eating fish (especially *Chilichima*) with milk.
2. Sour drugs (fruits) with milk.
3. Milk with salt.
4. *Lakucha* fruit with *Dadhi* (curd), *Masha* (black gram) soup.
5. *Kadali Phala* (banana) with *Dadhi* (curd).
6. *Gritha* (ghee) kept in *Kamsya* (bronze) vessel for more than 10 days.
7. *Madhu* (honey), *Sarpi* (ghee), *Vasa* (fat), *Taila* (oil) with water in equal quantity.
8. Meat of *Balaka* (orane) fried with *Vasa* of *Varaha* (boar).
9. Immersion of oneself in cold water soon after prolonged exposure in sunlight (skin and eye diseases).
10. Drinking milk soon after exposure to sunlight (*Rakta Pitta*).
11. Taking food immediately after physical fatigue.
12. Food taken immediately after getting tired up by speaking for long periods (*Swarasada*).
13. *Panasa* fruit with fish.
14. Taking saktu at night.
15. Milk with horse gram.
16. Consuming leafy vegetables after taking milk.

Diseases due to *Viruddha Ahara* [5]

Visphota, *Shoph*, *Mada*, *Vidradi*, *Gulma*, *Yakshma*, *Tejonasha*, *Smritinasha*, *Indriya Dourbalya*, *Raktapitta*, *Jwara*, *Asta Mahagada* and death (*Marana*).

General Pathogenesis of *Viruddha Ahara* [6, 7]

In general, most of *Viruddha Ahara* produces *Raktadusta Vyadhi* (blood borne diseases) and some other diseases as well; these disorders cause *Agnimandya* leading to formation of *Ama*, which is the main responsible primary factor for production of so many diseases. The classical example given in the combination of milk and fish, which cause *Srotodushti*, especially *Strotosanga* is the chief causative

factor in many diseases. More over some *Viruddha Ahara* produce '*Amavisha*' (endogenic digestive and metabolic poison) which can be equated with *Visha*, in respect of their qualities as well as effect on body. According to *Acharyas* *Visha* possess quite antagonistic qualities to that of *ojus*, which represent the entire immune system of body. Hence *Amavisha* produced by *Viruddha Ahara*, eventually leads to the breakdown of immunity, due to which body becomes vulnerable to be attacked by diseases producing organisms which ultimately results in one or other disease. Furthermore these cause *Utklesha* of different *Doshas* but do not eliminate them out of the body. In this way *Viruddha Ahara* causes all four cardinal *Vikrutis*.

*Agnimandya–Ojokshaya–Strotodushti–Vikrutha Dosh*a and constitutes like *Samprapti*, which are essential to produce disease.

Understanding of *Viruddha Ahara*

1. *Viruddha Ahara* is a type of *Ahita Ahara* (unwholesome food).
2. It has major in production, evolution and manifestation of diseases.
3. A few *Viruddha Ahara* show their ill effects immediately rather relatively early. For example, *Balataka* with *Varaha* will cause death immediately and majority show their action lately.
4. Majority of *Viruddha Ahara* shows very little effects on body and produce diseases if taken for less number of times and less quantity.
5. But if taken in large quantity, over prolonged period they exhibit their all adverse effects in the body and produce diseases with cumulative effect.

Incompatible Diet [8]

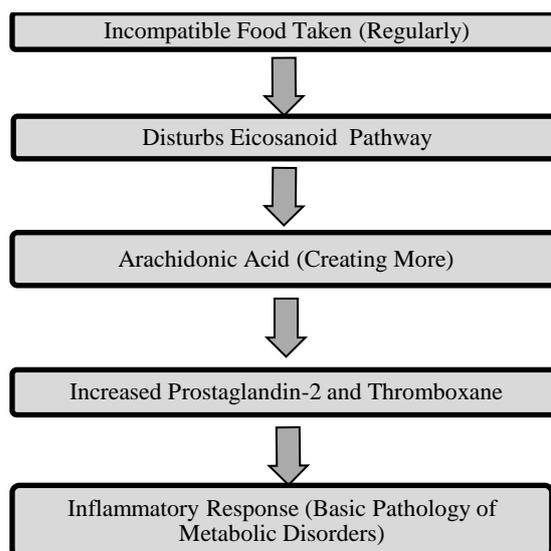
A new branch as emerged in modern science, which tells about the combination of basic categories of food, which is not advisable and is called as incompatible combination of diet.

1. As per this science proteins must not be combined with starch and carbohydrates and can be consumed differently. As starch require alkali medium (amylase) the combination leads to delayed absorption of other.

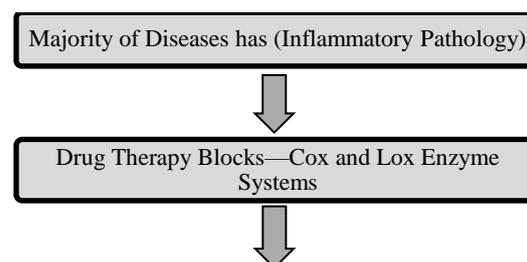
2. Similarly, eating sugars and acid fruits hinder the action of ptyalin and pepsin reducing the secretion of saliva and delaying digestion.
3. Fats impede the secretion of digestive juices and reduce the amount of pepsin and hydrochloric acid so they should be avoided or used sparingly with protein-rich foods.
4. The unwanted effect of wrong combinations of food is not limited up to gastrointestinal tract only but may hamper the major systems of the body.

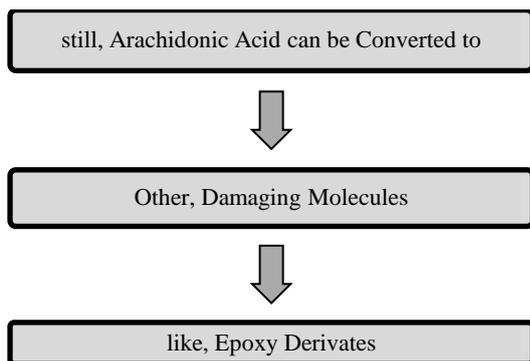
Critical Analysis of *Viruddha Ahara*

Viruddha Ahara taken on regular fashion brings disturbance in eicosanoid pathway creating more arachidonic acid leading to increased prostaglandin-2 and thromboxane hormones responsible for inflammatory effect [9].



This inflammatory effect is an important effect as these are all basic pathologies that create *agni mandya*, *ama* and number of metabolic disorders.

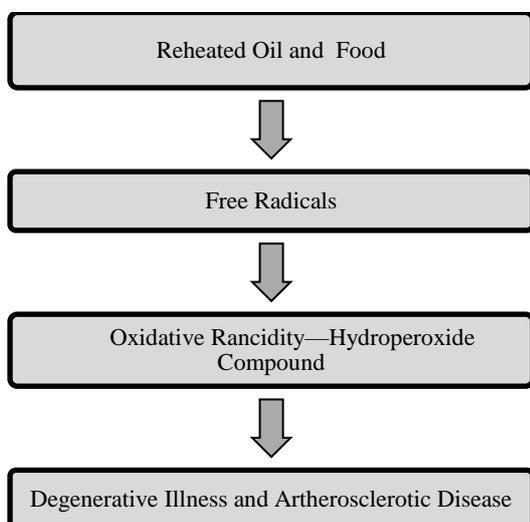




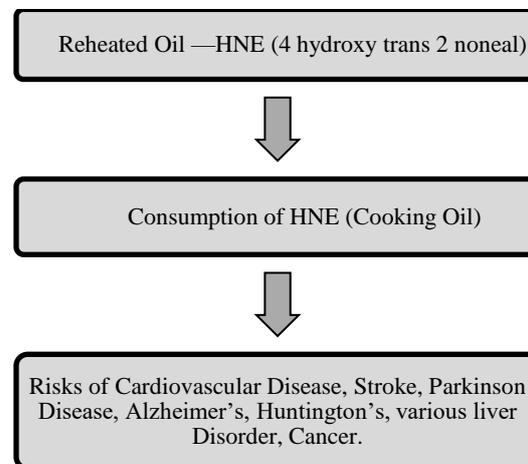
Consuming omega-6 (rancid by reheating) which aggravates inflammatory pathology [10]. As thousands of disorders are linked with inflammatory pathology it is very much required to know incompatible diets in day-to-day dietary habits of this fast moving mechanical life. Categorize and analyse their untoward effects on body as *Samskara, Samyoga and Parihara Viruddha*.

Samskara Viruddha

We have clear reference in Ayurvedic classics, that oil and food should not be reheated. As reheating of oil leads to formation of free radicals, which induces oxidative stress. It is due to the oxidative rancidity of fatty acids, i.e., when oil comes in contact with light, heat and oxygen there leads to formation of hydroperoxide compounds which in turn forms aldehyde molecules which are toxic in nature. These compounds cause oxidative stress in the cells of human body who consumes, and may increase the risk of degenerative disorders and atherosclerotic disease [11].

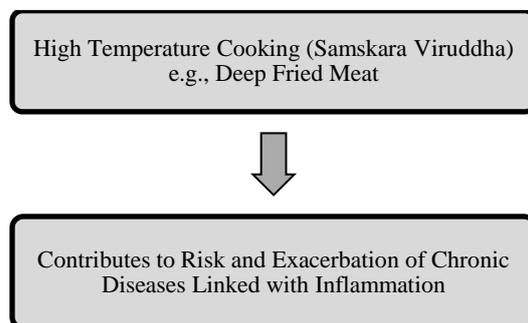


Recent studies have also found a toxin named HNE (4-hydroxy-trans-2-nonenal) when such oils like soya, sunflower, corn are reheated [12].



It has been also found that quantity of HNE is higher in deep fried foods like snacks prepared using these oils. HNE formation occurs when pieces of vegetables or fruits are boiled in oil to be fried; the oil molecule, which penetrates into these pieces, is converted to molecules similar to that of HNE, on being cooled to room temperature they convert into toxin HNE molecules [13].

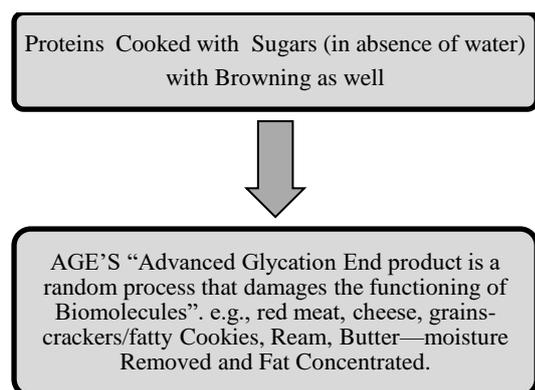
High temperature cooking which can also be considered as *Samskara Viruddha*, especially foods like meat may contribute to risk and exacerbation of chronic diseases linked with inflammation.



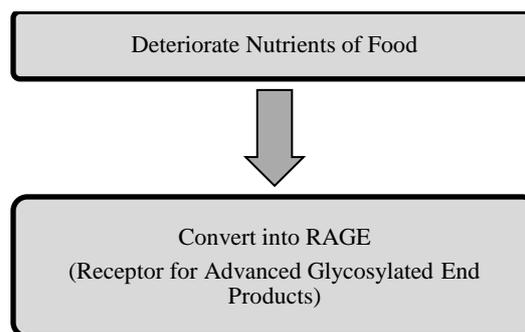
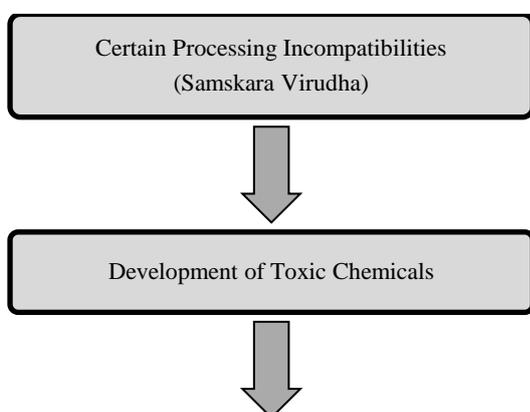
Samyoga Viruddha

When proteins are cooked with sugars in absence of water is said to be *Samyoga Viruddha*. As grains vegetables fruits and all such which contain protein in them, with browning being an indication of AGE’s

(advanced glycation end products) in which sugar molecules bonds to either a protein or a lipid molecule. This formation of AGE's can be found in food articles like red meat, cheese crackers/fatty cookies/cream, butter—moisture removed and fat concentrated. Advanced glycation end products is a random process that damages the “functioning of biomolecules”.



It is also found that certain processing incompatibilities of food leads to development of certain toxic chemicals or deteriorate the nutrient value of food or convert into RAGE that is receptor for advanced glycosylated end products. Formation and accumulation of AGE's progress during normal aging, and at an extremely accelerated rate under diabetes, thus being implicated in various type of age related disorders, such as vascular complications, neurodegenerative diseases and cancers. Further, there is accumulating evidence that AGE's and RAGE's interaction induces oxidative stress and subsequently alters gene expression in various types of cells.



Scientific evidence also shows restriction of diet derived AGE's not only blocks the progression of atherosclerosis and renal injury but also improves insulin resistance and reduces serum levels of inflammatory biomarkers in patients with diabetes or chronic renal failure. Thus observations suggest that restriction of food derived AGE's or inhibition of absorption of dietary AGE may be a novel target in therapeutic interventions of age related disorders [14].

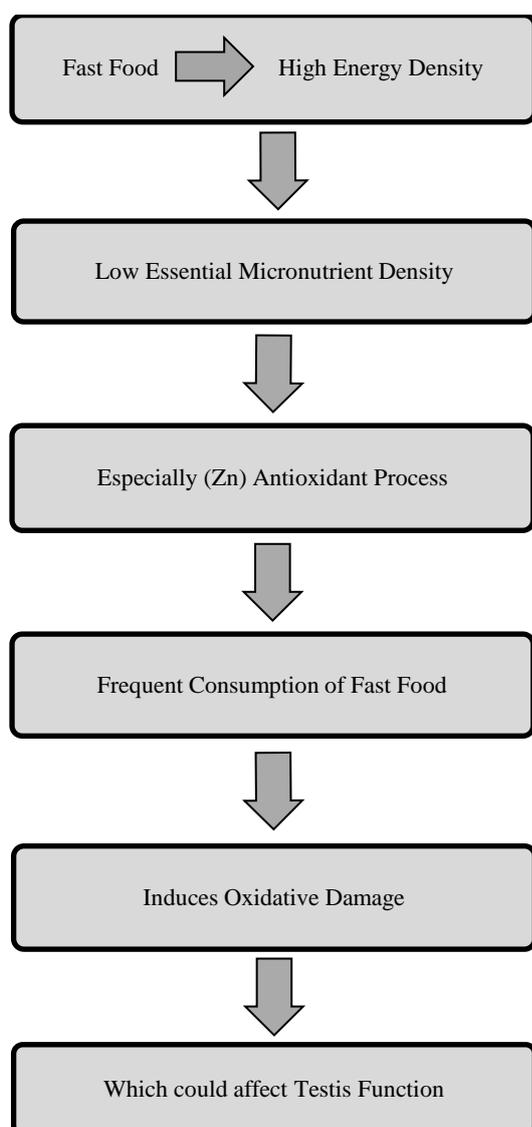
Parihara Viruddha

Fast food on which the present fast moving life is completely dependent, it is said frequent consumption of fast food which is high in energy density but low in essential micronutrients especially zinc (Zn) on which antioxidant processes are dependent, could also induce oxidative damage associated with inflammation in weanling male rats in relevance to Zn deprivation, which could adversely affect testis function.

Zn and iron (in plasma and testicular tissue) plasma antioxidant vitamins (A, E and C) as well as testicular super-oxide dismutase (SOD) and reduced glutathione (GSH), lipid peroxidation indexes, acid reactive substances and lipoprotein oxidation susceptibility, inflammatory markers and testicular tumor necrosis.

Factor alpha (TNF-ALPHA) were determined in studies. Serum testosterone and histological examination of testis were supportive evidence. A severe decrease in antioxidant vitamin and Zn with concomitant iron accumulation was found.

Zn deficiency correlated positively with SOD, GSH. It was concluded by the study that micronutrient deficiency especially Zn enhanced oxidative stress and testicular inflammation and decreased testosterone levels, which could be another reason that *Charaka* has mentioned *Shandatva* caused due to *Viruddha Ahara* [15].



Common *Viruddha Ahara* in day-to-day Life

- Milk shake, fruit salad—sour and sweet fruits (*Rasa and Veerya Viruddha*).
- Intake of juice/ice cream/alcohol after hot and spicy meal (*Upachara Viruddha*).
- Taking bath after food (*Vidhi Viruddha*).
- Taking milk/tea/coffee after consuming fish (*Guna Viruddha*).

- Consuming curd at night (*Krama Viruddha*).
- Honey with hot water (*Samyoga Viruddha*).
- Cooked food—refrigeration—again heating (*Samskara Viruddha*).
- Preservatives/coloring agents.
- Usage of curd in preparing nonveg dishes.
- Heating of curd in preparations like pulao.
- Usage of reheated oil.
- Taking raita with nonvegetarian food.
- Taking fast foods on regular basis.

Prevention of *Viruddha Ahara* Practice

As we know prevention is better than cure, in case of *Viruddha Ahara* also prevention is having role to prevent practice of *Viruddha Ahara* and to make people strong enough to resist *Viruddha Ahara* and to make people strong enough to resist *Viruddha Ahara Vyadhies*.

The following are some of the preventive measures which can be used for this purpose:

1. Propagating *Ayurvedic* principles regarding food through mass media.
2. Health education about bad effect of *Viruddha Ahara* at individual, family and group level.
3. Prophylactic measures (habituated to intake of unwholesome drugs and diets in small quantity).
4. Improving person's digestive power.
5. Advising regular physical exercise.
6. Promotion of good nutrition.
7. Periodic elimination therapy.
8. Introduction of preventive principles of *Ayurveda* at every education level like school, college, etc.

Treatment of *Viruddha Ahara* Vikrutis [16]

- Disease caused by intake of *Viruddhara* can be cured by *Vamana* (emesis therapy), *Virechana* (purgative therapy).
- Administration of antidotes and by taking prophylactic measures.

Research in *Viruddha Ahara*

To find out rationality regarding *Ayurvedic* description of *Viruddha Ahara*, there is a need

to conduct research in the field of *Viruddha Ahara*.

Further the research can be conducted in following ways:

- *Basic or fundamental research:*
 1. Review of literature regarding *Ahara*
 2. Review of *Viruddha Ahara*
- *Analytical research:*
 1. Physical analysis and
 2. Chemical analysis of incompatible food articles.
- *Experimental study:*
 1. Animal experimental study can be carried out to see the toxic effects of selected incompatible food combinations.
- *Extensive research:*
 1. After getting results from experimental study, it should be extended in further combinations of food articles.

CONCLUSION

From above analysis it is clear that *Viruddha Ahara* is an important concept of today's improper/faulty dietary habits. It can lead to several hazardous diseases unknowingly to people. It is also clear that its untoward effects on body is not limited to GIT system but even involves major system of body like immune, cellular metabolism, endocrine and circulatory systems. Thus it is important to enlist the causative incompatible dietary factors (HNE, AGE and RAGE) and train people to avoid such etiological factors. Article also opens a new research window in field of *Ayurveda* dieticians to research upon various incompatible factors to observe their effects.

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