

Yogic Concept of Diet, Mindful Eating and Fasting

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Abstract: *The importance of yogic diet is immensely significant for maintaining good health and spiritual upliftment. In Ayurveda, food is classified into 12 groups and The Bhagavadgita also classifies food as Sattvik, Rajasik and Tamasik. It has elucidated the three categories of food and its effect on human body and mind. All the foods are directly affected on Tridos has of our body if we are not following the path of yogic ahara. Mindful eating and fasting plays a significant role for spiritual journey. Nutritional status potentially influences immune responses; however, how nutritional signals regulate cellular dynamics and functionality remains obscure. The present review-based research article systemically discussed different concepts related with yogic diet, mindful eating and fasting in daily life of an individual..*

Keywords: Yogic Diet, Mindful Eating and Fasting.

I. INTRODUCTION

Diet evolves over time, being encouraged via way of means of many social, financial and geographical factors that engage in a complicated way to form people's dietary patterns. These elements consist of income, food habit and beliefs, cultural traditions, and geographical and environmental aspects. Therefore, for providing healthy food environment, inclusive of meals structures, involve a diversified, balanced and wholesome program by involving a number of sectors and stakeholders, such as government, and the private and non-private sectors. Consuming a wholesome dietary pattern throughout the life enables to save one from malnutrition and a number non-communicable diseases (NCDs) and conditions. However, extended manufacturing of processed meals, fast urbanization and converting life have caused a shift in nutritional patterns. People are actually taking extra energy, fats, loose sugars and salt/sodium; and so on. People nowadays no longer consume sufficient fruit, greens and different nutritional fibre together with complete grains (1).

The phrase of weight loss program regularly includes using unique consumption of vitamins and minerals for fitness or weight-control reasons. Individual nutritional choice can be more or less healthy. Mindful eating habit can be developed with regular practice during eating. It is a ability that augments the value of food intake with the secretion of different digestive enzymes. So mind full eating has psychological, physiological and nutritive value. Yoga diet, stress on vegetarianism, excluding onion and garlic. It is also termed as 'lacto- vegetarian' which basically means the exclusion of meat, egg and fish but includes dairy products, fruit and honey. Yoga sometime recommended for milk diet also. The diet belongs to the 'sattva guna', and following this diet is believed to achieve a healthy balance of body and mind (2).

Now days we are familiar with the term intermittent fasting. Our rich traditional yogic sciences put the importance of fasting in our monthly schedule, today modern science also are stress on that. Our body and brain work at their best only when your stomach is empty. In yoga, no less than 8 hours' intervals from one meal to another meal are recommended (3). It will help to maintain proper fitness and or able to minimize the issues of fitness, if any.

The present article discussed the justification of yogic diet along with mindful eating and fasting on human health and vitality.

II. YOGIC DIET

The ancient yogis explored, through direct experience, the impact of various foods on our physical health and assessed their influence on our mind, emotions, moods, sleep cycles and energy levels. Similarly, in Ayurveda, India's ancient system of mind-body medicine, stressed the significance of an individual's nutritional status and its role

in complete holistic health. The word 'diet' springs from the Greek word *diata*, meaning 'way of life'. Interestingly this too, forms the idea of the yogic approach to nutrition, herbal medicine and lifestyle. The yogis adopted a balanced diet that supported and appropriate for cellular health and renewal. They also considered the impact that nutrition had, not only on our physical health, but also on our emotional, social; mental and spiritual wellbeing, recognizing the symbiotic relationship of the body as a whole (4).

The yogic diet is a diet free of meat, poultry, fish, dairy and eggs. The diet prefers eating organic vegetables, fruits, grains, nuts, seeds, legumes, as well as teas and juices. In classic Yogic scriptures it is known as *Mitahara* which translates to moderation in eating. The Yogic diet **contains** three well- balanced Sattvic meals. The yogic diet categorizes food with three **sorts of** qualities. These qualities are referred to as Rajasic, Tamasic and Sattvic food. The yogic diet consists mainly of sattvic food such as vegetables, fruits, etc (5).

Concept of diet in Ayurveda:

In *Ayurveda* diet is given extreme importance. According to *Ayurveda*, the diet should be simple, easily digestible, and small in quantity. A person with weak digestive capacity should take diet containing less protein, that too for one to two times. Water should be taken half an hour after food. But those with good digestive capacity can take water along with food. Alcohol, coffee, tea should be avoided (6-8).

Sattvic, Rajasic, and Tamasic Foods

You are what you eat. If you are free to live a quiet, contemplative life, a sattvic diet is perfect. For those who wish to maintain a meditative mind, but also must live and work in the world, a diet consisting of sattvic and some rajasic foods is best. For those who practice demanding disciplines, like Kundalini Yoga or marital arts, rajasic foods are necessary, along with sattvic foods. For all these lifestyles, tamasic food is best avoided.

Sattvic:

- Clarity and lightness
- Graceful, peaceful, disciplined, intuitive, sensitive.
- Most fruit and vegetables, sun foods, and ground foods.

Foods dears to those in the mode of goodness increase the duration of life, purify one's existence and give strength, health, happiness and satisfaction. Such foods are juicy, fatty, wholesome, and pleasing to the heart.

Rajasic:

- Forcefulness and will-power
- Active, positive, demanding.
- Stimulating herbs and spices, many earth foods

Foods that are too bitter, too sour, salty, hot, pungent, dry and burning are dear to those in the passion. Such foods cause distress, misery and disease.

Tamasic:

- Functioning from need and instinct
- Impulsive, dull, angry, confused.
- Meat, fish, poultry, eggs, alcohol, intoxicating drugs.

Foods prepared more than three hours before being eaten, food that is tasteless, decomposed and putrid, and food consisting of remnants and untouchable things is dear to those in the mode of darkness(9-10).

Tridoshas :

Ayurveda, the ancient holistic health sister science to yoga, recognizes that health is a state of balance between the body, mind, and consciousness. In ancient times, food was considered medicine. The principles of healthy eating were well-known and the healing properties of foods and herbs were used to correct imbalances

One of the most important aspects of the system of Ayurveda is the *tridoshas*, or forces that generate and maintain physical and mental health:

- **Vata** (air): sustains the body and originates every kind of physical movement in the body. It controls the mind and senses and causes elimination of wastes.
- **Pitta** (bile): responsible for digestion, heat, the digestive fire, and the formation of blood.
- **Kapha** (phlegm): nourishes and lubricates the body, maintains sexual potency, and lends mental balance to the individual (11-12).

IMPORTANCE OF DIET IN YOGA

- Due to the internal stimulation of nervous system it is prescribed to reduce external stimulating factors in the form of salt, condiments, wines, smoking and eating very hot or cold food or drinks. Rock salt may be taken as it is rich in potassium which is known to have tranquillizing effect on the body.
- Non vegetarian meals (Meat, eggs and fish) seems to have been prohibited because of it contains more sodium which has stimulating effect on the nervous system, and it has sensitized in negative way of to the thought process of yogic practitioner.
- Proteins in the form of cow's milk, soybeans and fatty acids in butter and ghee are enough for better functioning of the nervous system and prepare it to withstand the heightened activity.
- During meditation and pranayama nervous system loses its contact with the periphery in respect to the peristaltic movement in gastrointestinal tract. Therefore, avoidance of food amenable to purification and restriction of gas production,
- The astringent food articles have much beneficial effects on our health because they are well known for their coagulating effects. Mild digestants like aniseed and others having aromatic substances and volatile oils could help digestive process without irritating membrane of gastro-intestinal tract.
- Most of the yoga practices are not stressor of our body. Therefore, vegetable proteins are enough for our tissue repairment. Moreover, vegetables and fruits are required minerals and vitamins source of our body
- Cereals, tubers, fruits and honey can take care of all energy requirement of a yoga sadhaka who invariably refrains from heavy muscular exertion (13).

Basics of Yoga Diet

Some assumptions have taken into consideration while working for yogic diet. These are mentioned below (14-15),

Sattvic food must be the priority

The food must be pure and fresh, which helps the body to function properly and calms the mind. It includes food which promote healthy, physically fit as well as mentally agile and balanced in both body and mind.

Recommendation for Vegetarian Food

The diet consists of all types of leafy green vegetables except onion and garlic. Elimination of animal protein because of their toxic substances and increase the amount of uric acid which result in diseases like gout, cancer, skin diseases, etc.

The choice of Organic Food

Sattvic diet prioritizes on fresh and chemical-free ingredients, it is best to use organic products for yoga diet. The fertilizer use for the agriculture purpose must be natural. The dairy products made from the milk must be organically fed cows and buffaloes.

Importance on Fresh Food

Refrigerated food must be avoided and it is recommended that it should not be preserved using artificial preservative. Food must be taken right after the cook.

Routine of Food intervals

The sequence of eating intervals must be followed. A fixed time of eating is beneficial.

Fasting

The important rule in a yoga diet is fasting, fast intermittently in a systematic way. The fast can be of many kinds viz, without any food and liquid, depends on liquids or eating fruits and fruit juice.

Avoid Caffeine or Alcohol

A *sattvic* diet should be free from coffee, alcohol, tobacco and artificial sweeteners.

Food Preferences:

The following foods are recommended for yogic diet (14-15).

- All types of seasonal fruits which have ripened naturally.
- Every green and leafy vegetable; without onion and garlic.
- Whole grain products like rice, oats and wheat.
- Dairy products like milk, *ghee*, curd, *paneer*, cheese, cream preferably made from milk.
- Oils of Sesame, coconut, olive and sunflower.
- Nuts and seeds without salt
- Herbal teas, honey, lemon juice without artificial sweetener ,
- Legumes
- Sprouted seeds
- Alkaline foods

III. MINDFUL EATING

Meditation is not an important tool in your practice of yoga and is very important at meal times. Your food choices should be made to support you, the most important things to consider in lifestyle, health and age. Your diet should be based on the visual, imaginative aspects of how your eating habits affect your body, mind, and soul. By eating carefully, you can quickly see how your choices affect you. Sometimes you may feel these effects straight away after a meal and sometimes the next day (16).

Yoga is a holistic approach to good health. Yogic concept plays an important role for mindful eating. Mindful eating is about learning to respect the inner wisdom. The choice of food must be such types that will be satisfying, nurturing, and nourishing for any individual's body, and soul, in that moment. Mindful eating is about being aware of the interconnectedness and consciousness of earth, plants, animals and humans. It's about being fully present as I chop, peel, and wash food. It's about cooking with joy, in a leisurely and peaceful way, infusing the food with love. It's about taking a moment to prepare the place where we eat (17).

Before ingesting the meals take a look at it carefully, sense the smell of the meals and respect it and display gratitude to the earth, the sky, the rain and the sun. Mindful ingesting permits to have fun with every chew of the meals that select to devour, and pay attention to body's cues approximately starvation and satiety, and devour simply what you need, now no longer more. Acknowledge that this meal is providing you with strength and important vitamins for functional life. Although we devour numerous instances a day, maximum folks not often deal with the tastes, smells, and sensations of ingesting. We cognize on different matters, including viewing television or we sincerely hurry to complete ingesting food. This results in an imbalance in the manipura chakra (on the sun plexus) of the energy wheel (18).

As well as being the center of your body's transformational energy, the manipura chakra is the seat of your body's digestive fire. Its job is to "digest" and assimilate the different food stuffs. Without proper digestion, your body, mind, and emotions are unable to absorb essential nourishment. The Eating Meditation puts one in touch with the vital energy and also able to connect with a very physical way to the ingredients of life.

Process of Mindful Eating

- **Positive preparations:** The complete technique of conscious consuming starts even before the actual process of ingesting. One need to see to it that you put together your meal in a completely tremendous state of mind. Our temper and energy on the time of cooking are going to get transferred on your meal. So always ensure that thoughts are filled with positivity and gratitude in the course of the cooking technique.
- **Ingredients of meals:** A Sattvik meal that could help to hold the body and mind healthful, as it's very easy to digest. A Sattvik food regimen additionally helps to increase immunity, vital flow of energy, health, and power. Preferably, food needs to include of fresh, healthy, and local seasonal culmination and veggies. It needs to consist of cereals, greens, entire grains, legumes, ghee, and dairy products.
- **Mitahara:** Consider of how much amount of food our body needs and what amount we eat. It is advised that fill half your stomach with strong foods, 1/4th with liquid, and 1/4th need to be left empty for the gases to freely move round.
- **Chew properly:** Bite food properly, instead of swallowing large morsels of meals, chew it for at the least 20-30 instances before u swallow it. This will not only most effective to make the swallowing system but also assist to get all the nutrients out of the morsel and aids the absorption. Devour your food slowly and consciously, with all of your consciousness.
- **No distractions:** At the time of eating, there shouldn't be any distractions like television, gossiping, singing and soon. Eat at one constant time and in a quiet surroundings with a thoughts complete of recognition. We nourish our our bodies now not best with our meals but also with our minds through our senses.
- **Involvement of senses:** Use all of our senses to have interaction with food. First, hear the crackling sound even as preparing the food, then see the stunning shades, smell the aroma, use your fingers to devour and contact the textures, and subsequently use the tongue to taste the meals. With the interaction of all five senses with your food, one can automatically conscious.
- **Attention to the body:** Don't eat just because it's mealtime, consume most effective when body feels hungry. One need not overeat or consume food beyond one's belly capacity. This typically happens in a standard Indian household, where we force our guests to devour greater.
- **Pay attention:** while you are ingesting your meals, sincerely consume your meals. Don't complicate the system and divert your attention by way of multitasking. Provide it all of your attention and revel in your meal with entire consciousness (19-20).

Physiological Functions of Eating

- Seeing the food texture and smelling the aroma of food our digestive juices starts secreting enzymes due to the activation of olfactory glands, which passes the sensory information to our central nervous system.
- Our digestion starts from the mouth, hence, increasing the chewing time helps to initiate the function of digestion from the mouth.
- The food particle inside the mouth get enough time to mixing with saliva and convert into cymes, which is easy to swallow.
- Mindful eating facilitates the process of food ingestion and digestion.

IV. FASTING

From associate degree biological process perspective, 3 meals on a daily basis could be a strange trendy invention. Fast has long been related to spiritual rituals, diets, and political protests. It's been practiced for thousands of years by varied cultures everywhere the globe. Religions have long maintained that fast is good for the soul. for many faiths, the sacrifice of food and water -- for hours, days, or weeks at a time -- is known to be associate degree intensely for spiritual practices, that permits for reflection and asceticism. Whereas, spiritual fasts are partaken primarily for spiritual reason, they even have the potential to greatly have an effect on one's physical health (21). Fast is primarily associate degree act of voluntary abstinence or reduction from bound or all food, drink, or both, for a amount of your time to target health and / or spiritual enrichment (22).

The ancient fast had extremely spiritual motivations. Various religions incorporate fast into their rituals and quick on selected days of the week or calendar year (23). Ancient traditions ought to fast before undergoing a very important event in their life. Shorter spiritual fast in ancient cultures symbolizes cleansing rites. Different motivations of ancient fast embrace the idea in purity of the spirit, rewards, and mysticism

Fasting is defined as a partial or total abstention from all foods, or a select abstention from prohibited foods. The most commonly studied fasts are time restricted feeding (TRF), alternate-day fasting (ADF), modified alternate-day fasting (MADF) and prolonged fasting (PF). Recently, research in animal models and humans has highlighted the potential health-promoting physiological responses to fasting including ketogenesis, hormone modulation, reduced oxidative stress and inflammation, and increased stress resistance, lipolysis, and autophagy (24-25).

Yogic concept of fasting:

We have had many articles on Meditation, Yoga, spiritual things for mind and body, inner reflection and creativity. Fasting is a way to minimize the superficiality, getting to the deeper. It works, because it can distinguish the daily patterns you rely on the most. When those short term pleasures are removed, you are left with your own internal resources. The duration of fast vary differently, not to consume food for several hours from 12 to 24 or 36 hours. In the Hindu religion, the eleventh day after the New Moon is a day on which fasting is observed monthly. Then there are many other days when fasting are practiced.

Physical fasting is simply a detachment of food for the body. All religions promote fasting; but the greatest power is spiritual fasting: separation from all personal desires. Spiritual fasting has been used by the saints for centuries, protecting them from material gain, with the goal of gaining spiritual enlightenment. We have the example of Lord Buddha and Sri Sri Ramakrishna Parmahans in the past, who fasted for spiritual food by separating themselves from the comforts of the world and fighting for divine light.

Practicing spiritual fasting may seem like a difficult task, but giving up greed is the first step. You can try to meditate in any way that will clear your mind. Even giving water to a thirsty person is a form of meditation, in which the spirit is involved in good deeds. At the very moment when you offer water, you are associating yourself with a higher being, it may be even a fraction of a second, but then you get that state of purification in good deed. Removing yourself from bad practices is actually a form of spiritual fasting, a form of self-cleansing (26-27).

Throughout the day of fasting, remember that you are fasting to grow mentally and spiritually. Remember the promise you made to yourself not to eat on this day. Inside, you will feel happy and your confidence will grow as you keep your decision fast. Always know that this is a special day and try to treat other people in a friendly and positive way. Traditionally there is a delicious dish of milk, such as milk rice pudding (Keer), sweet semolina (Halva), or the like. Apart from this one should also cook for yourself and his or her family a typical dinner. The Prasad, along with the meal, is prepared with much love, good thoughts and the singing of Mantras or spiritual songs. Light a candle and incense burner. The light symbolizes the presence of knowledge and wisdom. Flowers, fruits and incense are a contribution to the good energy on Earth (28).

There are two basic reasons for fasting.

1. To develop willpower and spirituality.

2. Health purpose, Such as

- Detoxification and purification of the body
- Reduction of weight
- Management of fatigue and sleep disorders
- Improving a state of inner balance and harmony

Types of Fasting:

Fasting can be classified into three heads

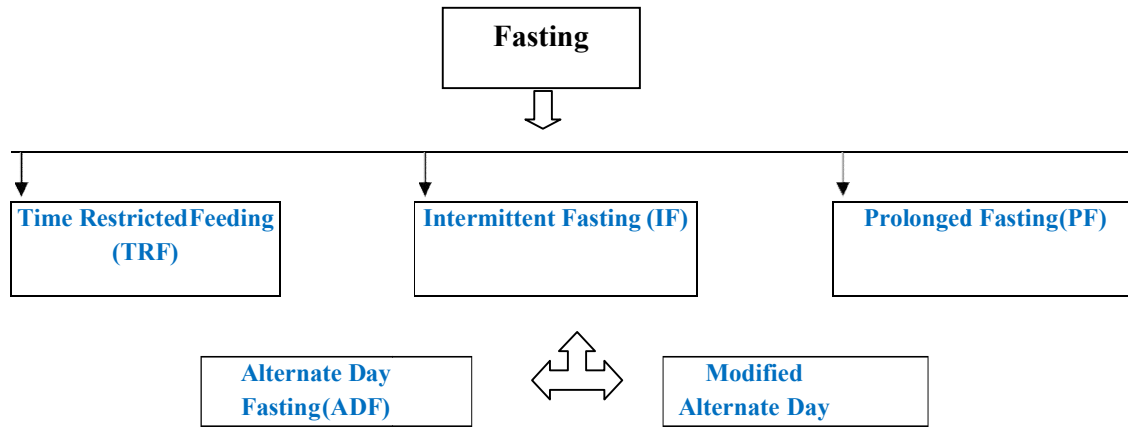


Figure-1. Classification of Fasting

Time Restricted Feeding (TRF):

This is an eating pattern in which the food intake is restricted for a time period of 8–12 h or less every day. Limiting the eating duration may be an effective strategy to reduce the overall caloric intake. It does not necessarily have to involve caloric restriction. 16/8: feeding and fasting ratio of 8 h/day in which it is allow to consume food and 16 h of fasting (29). 12/12: feeding and fasting ratio last the same. This is claimed to be the simplest type of TRF to improve health and to maintain weight (30).

Intermittent Fasting (IF):

Intermittent fasting can be subdivided into two categories, such as

- **Alternate Day Fasting (ADF):** This form of IF involves fasting every other day or on certain days of the week. Ad libitum caloric intake is followed on non-fasting days . Starving for one day, followed by feasting the next. Only during the fasting days is a caloric restriction expected (31). 5/2: This is the most common example of ADF. Calories are severely restricted for 2 days (preferably non-consecutive), and then normal eating occurs for the other 5 days in the week (32).
- **Modified Alternate Day Fasting (MADF):** This is a form of IF, similar to ADF, with a severe and specific caloric restriction on fasting days. During fasting days, the caloric intake consists of 15–25% of the dietary needs. Ad libitum diet is followed on non-fasting days (33). Restriction days are non-consecutive and include only a small introduction of food. During non-fasting days the intake of food is at leisure. 5/2: 15%–25% of Total Daily Energy expenditure (TDEE) is suggested during 2 non-consecutive fasting days a week. Ad libitum food intake is recommended for the resting 5 days (34).

Prolonged Fasting (PF):

PF consists in fasting for an extended period, from 4 to 7 days. It has been less commonly studied for longer periods in humans (35). During consecutive fasting days usually only water is permitted (36). No commonly practices methods are defined. Periods of deliberate fasting with restrictions on intake of solid food are practiced (37).

Impact of Fasting on Health:

The present article critically discusses the four important physiological and behavioral considerations of fasting associated with human health.

- Cellular changes
- Circadian biology
- Gastrointestinal Microbiota
- lifestyle behaviors

Let us discuss about the facts

Cellular Changes:

Nutritional status can contribute to the immune response; however, how nutritional indicators regulate cellular function and dynamics remain unknown. The intestinal mucosa is exposed directly to external food ingredients and thus undergoes dramatic changes in the state of the digestive system during fasting and feeding state. The intestinal tissues are at high risk for nutrient depletion, as short-term fasting is tied to an increase in epithelial cells while stimulating hyperproliferation in the intestinal epithelium (38). Given that epithelial cell gains are a strong first-line barrier to foreign antigens, mucosal inhibitory activity may be more vulnerable during fasting than during feeding. Considering that fasting reduces the burden of antigen-carrying antioxidants and microorganisms in the gut mucosa, then it makes sense to temporarily reduce the price of epithelial cells to reduce energy expenditure under nutrient depletion, the possibility that the gut microbiota may be involved in the regulation of lymphocyte dynamics in response to fasting and regeneration. Significantly, such B cell power in response to food and malnutrition was well maintained at all stages of life.

Intermittent fasting reduces inflammation and thus can provide some promising health benefits in certain conditions such as obesity, asthma, and rheumatoid arthritis, where the inflammatory response is affected (39). Fasting improves insulin sensitivity and promotes cellular stress resistance (40) and thus helps to alter the immune response. IF, a long-standing Islamic practice during the Holy month of Ramadan (more than 14 h daily for 30 consecutive days from dawn to dusk), resulted in a significant increase in regulatory protein metabolism, DNA repair, and antibodies and led to a serum proteome that protects against inflammation and lifestyle-related diseases (41). The potential for fasting cells involves stimulating responses to variable cellular responses that greatly protect the host coping with the coming great pressure and fighting pathogenesis.

While IF operates in a variety of religions and some of them have proven to have potential health benefits, the appropriate fasting system can also be changed individually. Along with looking at IF, other health benefits such as exercise and meditation that help improve the immune system are also highly recommended. In addition, healthy foods combined with active ingredients that have strong antioxidant, anti-inflammatory, and immune-modulatory properties should always be included in the diet chart. During fasting, care should be taken to ensure a sufficient number and amount of essential micronutrients such as vitamin C, vitamin D, and zinc that help boost the immune system and anti-stress mechanisms (42).

Circadian biology:

Fasting involves a radical change in cellular physiology and metabolism. Blood glucose normally provides the body with sufficient energy through glycolysis. During a fast, maintenance of blood glucose levels initially relies on glycogen stores in the liver and skeletal muscle. Glycogen is made up of chains of polymerized glucose monosaccharides that are used for energy by the process of glycogenolysis. Most glycogen is stored in the liver, which has the greatest role in the maintenance of blood glucose during the first 24 hours of a fast. After fasting for around 24 hours, glycogen stores are depleted causing the body to utilize energy stores from adipose tissue and protein stores (43). The drastic change in metabolism that follows glycogen depletion is primarily dependent on the metabolism of triglyceride stores in adipose tissue. Triglycerides are separated into free fatty acids and glycerol that the liver respectively converts into ketone bodies and glucose. Ketone bodies made from free fatty acids through the process of ketogenesis. These ketone bodies travel through the body and are reconverted back into acetyl-CoA at the tissues requiring energy. Different forms of fasting that limit the consumption of food during the day may promote circadian

biology to improve metabolic health. Organisms have evolved to limit their activity at night or during the day by creating a long-lasting cycle to ensure that the body's processes are carried out at the right times.³⁴ Time of day plays a major role in combining metabolism and energetics and physiologic signals such as hormonal secretion patterns, fusion, and sleep (44). In mammals, the primary biologic clock is located in the suprachiasmatic nuclei (SCN) of the hypothalamus and is exposed to light and dark light. Similar oscillators have been found to clock in border muscles such as the liver; by feeding as a prominent time indicator (e.g., zeitgeber). It is thought that the separation of the domain between the main SCN clock and the peripheral circadian clocks disrupts the balance of power (45) and leads to an increased risk of chronic diseases (46). reprogram molecular processes of energy metabolism and body weight regulation. Evidence that nutritional signals and mealtimes are circadian synchronizers is largely based on animal research (47).

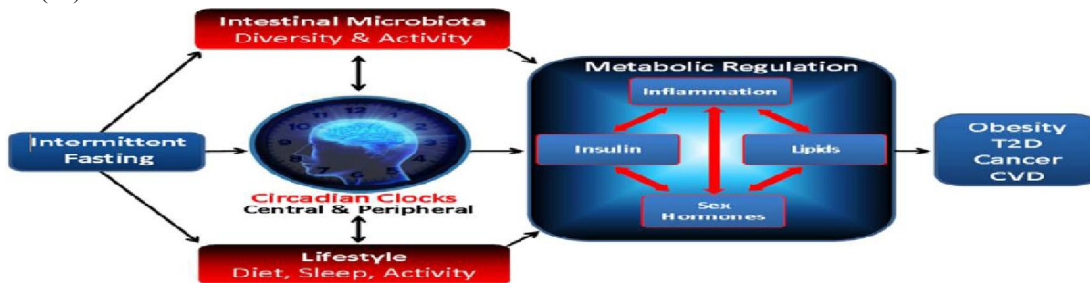


Figure 2. Association of intermittent fasting with intestinal microbiota, circadian clock, and other lifestyle factors (55).

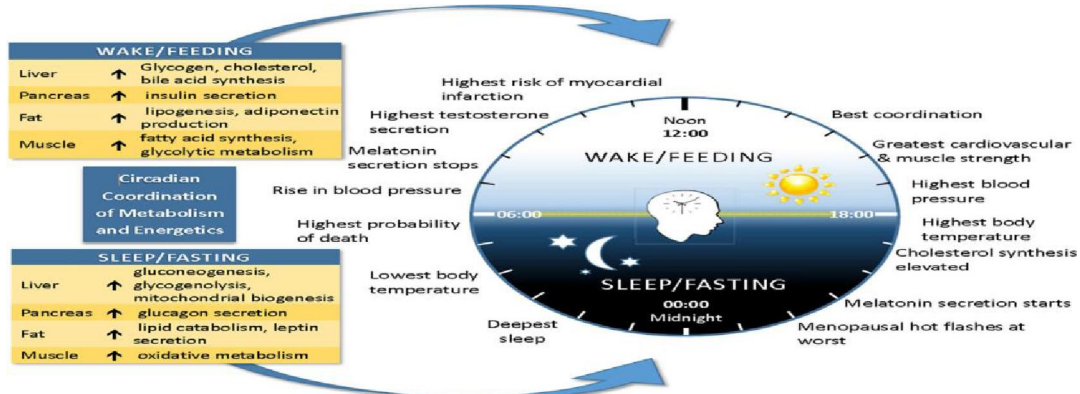


Figure 3. The human circadian rhythm regulates eating, sleeping, hormones, physiologic processes (55)

Gastrointestinal Microbiota

Many functions of the gastrointestinal tract show strong circadian rhythms or sleep-week rhythms. For example, absorption and blood flow are much higher during the day than at night and metabolic responses to glucose load are slower in the evening than in the morning (51).

Persistent fasting can directly affect the gut microbiota, which is a complex, diverse, and very large area of microbiota community found in the intestinal tract. Studies show that changes in the structure and function of the gut microbiota in obese people may allow the "fat microbiota" to gain more energy in the diet than the "reduced microbiota" and thus contribute to energy, consumption, and storage (52). In addition, obesity-related mutations in the gut microbiota can alter intestinal acquisition and transmission of viruses to promote systemic inflammation (53), obesity symptoms and obesity-related diseases. Finally, it is noteworthy that recent research has linked jet lag in mice to humans in microbiota diurnal fluctuations and dysbiosis leading to glucose intolerance and obesity (54).

Lifestyle Behaviors

Energy availability

A study of the unit of modified fasting and non-modified fasting units has documented energy consumption. However, research on fasting regimens for free-living adults is based on self-efficacy, which is negatively correlated with symptoms of energy gain.

Sleep - Many observational studies have reported that eating at night is associated with reduced sleep time and poor sleep quality, which can lead to insulin resistance and an increased risk of obesity, diabetes, heart disease and cancer. Specifically, eating at irregular circadian times (e.g., at night) is involved in circadian desynchronization and subsequent disruption of normal sleep patterns (55).

IV. CONCLUSION

Nutrition is our primal source of medicine. The role of therapeutic diet is plays a pivotal role for health and wellbeing. Scientific findings are showing this time and time again and as we journey back through to the roots of the yogic journey, they too knew that. Not only do our nutritional choices impact the health of the body, but they also influence the way we think, move, feel and the quality within which we live our day to day lives. The simple steps for yogic diet, fasting and mindful eating is listed below ;

1. Vegetarian
2. Follow Sattvic diet plan
3. Follow the principle of Mitahar
4. Free from chemicals (organic)
5. Made up of fresh foods
6. Eaten at regular intervals
7. Fasted for at least one day
8. Eat consciously
9. Pay attention while eating
10. Go for fasting intermittently

REFERENCES

- [1]. <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>
- [2]. [https://en.wikipedia.org/wiki/Diet_\(nutrition\)](https://en.wikipedia.org/wiki/Diet_(nutrition))
- [3]. <https://isha.sadhguru.org/global/en/wisdom/article/benefits-of-fasting>
- [4]. EMMA PALMER, <https://www.mokshayoga.com.au/wp-content/uploads/2017/11/23-The-Yogic-Diet- ANH-174>
- [5]. <https://www.purplelotusspiritualhealinginc.com/blog/the-yogic-diet/>
- [6]. Singh RH, The Holistic Principles of Ayurvedic Medicine, (Chaukhamba Sanskrit Pratishtan, Delhi), 1998.
- [7]. S Rastogi, F Chiappelli, MH Ramchandani & RH Singh, Evidence-based Practice in Complimentary and Alternative Medicine-Perspectives, Protocols, Problems, and Potentials in Ayurveda, (Springer, Heidelberg), 2012.
- [8]. Mukhopadhyay Kishore, (2020), Yogic Diet for Immunity and Health, International Journal of Trend in Scientific Research and Development (IJTSRD), Volume 5 Issue 1, November-December 2020 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470.
- [9]. Ballentine Rudolph, Diet & Nutrition-A holistic approach, (The Himalayan International Institute,) Rastogi Rajiv and, Sanjeev Rastogi, (2017),
- [10]. Concept and role of diet as a component of Naturopathy and yoga therapy, Indian Journal of Traditional Knowledge, Vol. 16 (Suppl), pp. S 47-S 52.
- [11]. <https://www.anandaspa.com/en/spa/ayurvedicexperiences/ayurvedic-tridosha-theory>
- [12]. <https://www.yogajournal.com/lifestyle/the-doshabalancing-diet>
- [13]. Desai B.P. 1990, Place of Nutrition in Yoga , Ancient Science of Life, Vol. IX, No. 3, January 1990, Pages 147-153

- [14]. <https://parenting.firstcry.com/articles/magazine-the-yoga-diet-sattvic-diet-that-balances-your-body-and-soul/>
- [15]. <https://theyogainstitute.org/wp-content/uploads/2021/08/Yogasattva-August-2021-1.pdf>
- [16]. <https://therefinerye9.com/basic-principles-yogic-diet/>
- [17]. <https://teach.yoga/yoga-and-mindful-eating/>
- [18]. <https://yogainternational.com/article/view/a-practice-for-mindful-eating>
- [19]. <https://theyogainstitute.org/mindful-eating/>
- [20]. <https://yogainternational.com/article/view/a-practice-for-mindful-eating>
- [21]. Trepanowski JF, Bloomer RJ. The impact of religious fasting on human health. *Nutrition J* 2010; 9:57.
- [22]. Rizza W, Veronese N, Fontana L. What are the roles of calorie restriction and diet quality in promoting health and longevity? *Ageing Res Rev* 2014; 13:38–45.
- [23]. Longo VD, Mattson MP. Fasting: Molecular mechanisms and clinical applications. *Cell Metabolism* 2014; 19: 181–192.
- [24]. Jamshed, H.; Beyl, R.A.; Della Manna, D.L.; Yang, E.S.; Ravussin, E.; Peterson, C.M. Early time- restricted feeding improves 24-hour glucose levels and affects markers of the circadian clock, aging, and autophagy in humans. *Nutrients* 2019, 11, 1234.
- [25]. Phillips, M.C. Fasting as a Therapy in Neurological Disease. *Nutrients* 2019, 11, 2501.
- [26]. <https://www.deccanchronicle.com/lifestyle/health-and-wellbeing/161016/cell-strategy-how-fasting-makes-the-human-body-better.html>
- [27]. Dhar Bonani, Spiritual Fasting, <http://cdgi.edu.in/pdf/Spiritual%20Fasting.pdf>
- [28]. <https://www.yogaindailylife.org/system/en/the-spiritual-background/fasting>,
- [29]. Gabel, K.; Hoddy, K.K.; Haggerty, N.; Song, J.; Kroeger, C.M.; Trepanowski, J.F.; Panda, S.; Varady, A.K. Effects of 8-hour time restricted feeding on body weight and metabolic disease risk factors in obese adults: A pilot study. *Nutr. Healthy Aging* 2018, 4, 345–353.
- [30]. Collier, R. Intermittent fasting: The science of going without. *Can. Med. Assoc. J.* 2013, 185, E363– E364.
- [31]. Stockman, M.-C.; Thomas, D.; Burke, J.; Apovian, C.M. Intermittent Fasting: Is the Wait Worth the Weight? *Curr. Obes. Rep.* 2018, 7, 172–185
- [32]. Patterson, R.E.; Sears, D.D. Metabolic effects of intermittent fasting. *Annu. Rev. Nutr.* 2017, 37, 371– 393.
- [33]. Parvareh, A.; Razavi, R.; Abbasi, B.; Yaghoobloo, K.; Hassanzadeh, A.; Mohammadifard, N.; Safavi, S.M.; Hadi, A.; Clark, C.C. Modified alternate-day fasting vs. calorie restriction in the treatment of patients with metabolic syndrome: A randomized clinical trial. *Complement. Ther. Med.* 2019, 47, 102187.
- [34]. Johnson, J.B.; Laub, D.R.; John, S. The effect on health of alternate day calorie restriction: Eating less and more than needed on alternate days prolongs life. *Med. Hypotheses* 2006, 67, 209–211
- [35]. Finnell, J.S.; Saul, B.C.; Goldhamer, A.C.; Myers, T.R. Is fasting safe? A chart review of adverse events during medically supervised, water-only fasting. *BMC Complement. Altern. Med.* 2018, 18, 67.
- [36]. De Toledo, F.W.; Grundler, F.; Bergouignan, A.; Drinda, S.; Michalsen, A. Safety, health improvement and well-being during a 4 to 21-day fasting period in an observational study including 1422 subjects. *PLoS ONE* 2019, 14, e0209353.
- [37]. Michalsen, A. Prolonged Fasting as a Method of Mood Enhancement in Chronic Pain Syndromes: A Review of Clinical Evidence and Mechanisms. *Curr. Pain Headache Rep.* 2010, 14, 80–87.
- [38]. Okada, T., Otsubo, T., Hagiwara, T., Inazuka, F., Kobayashi, E., Fukuda, S., Inoue, T., Higuchi, K., Kawamura, Y.I., and Dohi, T. (2017). Intermittent fasting prompted recovery from dextran sulfate sodium-induced colitis in mice. *J. Clin. Biochem. Nutr.* 61, 100–107.
- [39]. .D. Longo, M.P. Mattson, Fasting: molecular mechanisms and clinical applications, *Cell Metab.* 19 (2) (2014) 181–192.
- [40]. M.P. Mattson, V.D. Longo, M. Harvie, Impact of intermittent fasting on health and disease processes, *Ageing Res. Rev.* 39 (2017) 46–58.
- [41]. A.L. Mindikoglu, M.M. Abdulsada, A. Jain, J.M. Choi, P.K. Jalal, S. Devaraj, M.P. Mezzari, J.F. Petrosino, A.R. Opekun, S.Y. Jung, Intermittent fasting from dawn to sunset for 30 consecutive days is associated with anticancer proteomic signature and upregulates key regulatory proteins of glucose and lipid metabolism,

- circadian clock, DNA repair, cytoskeleton remodeling, immune system and cognitive function in healthy subjects, *J. Proteomics* 217 (2020) 103645
- [42]. Hannan et.al. (2020), Intermittent fasting, a possible priming tool for host defense against SARSCoV- 2 infection: Crosstalk among calorie restriction, autophagy and immune response, *Immunology Letters* 226 (2020) 38–45
- [43]. Browning JD, Baxter J, Satapati S, Burgess SC. The effect of short-term fasting on liver and skeletal muscle lipid, glucose, and energy metabolism in healthy women and men. *J Lipid Res.* 2012 Mar;53(3):577-586
- [44]. Panda S, Hogenesch JB, Kay SA. Circadian rhythms from flies to human. *Nature.* 2002; 417:329– 335 Froy O, Miskin R. Effect of feeding regimens on circadian rhythms: implications for aging and longevity. *Aging.* 2010; 2:7–27. [PubMed: 20228939]
- [45]. Challet E. Circadian clocks, food intake, and metabolism. *Prog Mol Biol Transl Sci.* 2013; 119:105– 135.
- [46]. Scheer FA, Hilton MF, Mantzoros CS, Shea SA. Adverse metabolic and cardiovascular consequences of circadian misalignment. *Proc Natl Acad Sci USA.* 2009; 106:4453–4458. 38. Eckel- Mahan KL, Patel VR, de Mateo S, et al. Reprogramming of the circadian clock by nutritional challenge. *Cell.* 2013; 155:1464–1478.
- [47]. Sensi S, Pace Palitti V, Guagnano MT. Chronobiology in endocrinology. *Ann Ist Super Sanita.* 1993; 29:613–631
- [48]. Jakubowicz D, Barnea M, Wainstein J, Froy O. High Caloric intake at breakfast vs. dinner differentially influences weight loss of overweight and obese women. *Obesity.* 2013; 21:2504–2512.
- [49]. Cahill LE, Chiuve SE, Mekary RA, et al. Prospective study of breakfast eating and incident coronary heart disease in a cohort of male US health professionals. *Circulation.* 2013; 128:337–343. Vander Wal JS. Night eating syndrome: a critical review of the literature. *Clin Psychol Rev.* 2012 Feb.32:49– 59.
- [50]. Qin LQ, Li J, Wang Y, Wang J, Xu JY, Kaneko T. The effects of nocturnal life on endocrine circadian patterns in healthy adults. *Life Sciences.* 2003; 73:2467–2475.
- [51]. Bo S, Musso G, Beccuti G, Fadda M, Fedele D, Gambino R, Gentile L, Durazzo M, Ghigo E, Cassader M. Consuming more of daily caloric intake at dinner predisposes to obesity. A 6-year population-based prospective cohort study. *PLoS One.* 2014; 24(9):e108467.
- [52]. Ekmekcioglu C, Touitou Y. Chronobiological aspects of food intake and metabolism and their relevance on energy balance and weight regulation. *Obesity Reviews.* 2011; 12:14–25.
- [53]. Tilg H, Kaser A. Gut microbiome, obesity, and metabolic dysfunction. *J Clin Invest.* 2011; 121:2126– 2132.
- [54]. Shen J, Obin MS, Zhao L. The gut microbiota, obesity and insulin resistance. *Mol Aspect Med.* 2013; 34:39–58.
- [55]. Thaïss CA, Zeevi D, Levy M, Ailberman-Schapira GZ, Suez J, Tengeler AC, et al. Transkingdom Control of Microbiota Diurnal Oscillations Promotes Metabolic Homeostasis. *Cell.* 2014; 159:514–529.
- [56]. Patterson et.al, 2015, Intermittent fasting and human metabolic health, *J Acad Nutr Diet.* 2015 August ; 115(8): 1203–1212.