

Lifestyle Diseases and Ayurveda¹

Dr Manisha U. Nikam

Professor, Swasthavrutta Dept.
BAMS, MD, PhD Scholar (Kaychikitsa)

ABSTRACT

'Health' is a state of complete physical, mental, spiritual and social wellbeing and not merely an absence of disease or infirmity. **'Swastha' in Ayurveda** is health that means the equilibrium of *Dosha, Dhātu, and Mala* with proper functions of *Atma, Indriya & Manas* in the body. But in the present era, the Lifestyle diseases, commonly known as 'non-communicable diseases'(NCDs) or (CDL) are the shooting up prevalence disorders causing questionable health statistics of positive health irrespective of age and gender.

The main culprits of the Lifestyle diseases are faulty & unhealthy diet, day-today lifestyle changes with sedentary routine or disturbed biological clock as well as genetics, physiology, environment and behaviors causing deaths around 41 million people each year. The common NCDs are Diabetes, Hypertension, Stroke, Cancer, Cardiovascular diseases (CVD), Depression etc.

Ayurveda emphasizes on '*Garbhasanskar*' before & from the time of conception, during pregnancy and after delivery to empower the child's physical, mental, and intellectual, all round qualities. *Ayurveda* believes in '*Trayopshtambha*' i.e., *Ahar, Nidra & Brahmacharya*. *Ayurveda* recommends to adopt a healthy lifestyle with a proper healthy & balanced diet containing '*shad-rastmak aahar*', '*chaturvidh aahar*' from different 13 '*Aahar varga*' along with some rules & regulations of taking food like '*Ashta vidh Aahar Visheshayatanani*', '*Aahar Vidhi Vidhan*', '*Pathya- Apathya, Aahar-kalpana*'. Millets or '*Trina-dhanya*' or *Bharad-dhanya* are the 'Magic Bullets' against non-communicable diseases. *Ayurveda* emphasizes on '*Dincharya*', '*Rutucharya*', '*Sad-vrutta*' (good healthy conduct) and suggests to avoid the suppression of natural urges.

As *Ayurveda* is recognized as foremost life science and describes ways to prevent and manage lifestyle disorders, the world is being attracted towards its potential. *Ayurveda* better solution in the form of dietary management, lifestyle advises, *Panchakarma, Rasayana* or Rejuvenating therapies. The most powerful and important way is to follow *Yoga & Meditation 'Ashtanga Yoga'* that plays an important role in prevention of the lifestyle disorders, in control over the senses & concentration. The holistic approach of *Ayurveda*, treating the patient as a whole, meaning intervention targeted towards complete physical, psychological and spiritual well-being makes this science a wonderful option in Lifestyle disorders.

Keywords: *Lifestyle disorders; Ayurveda; Garbha-sanskar; Rasayana; Panchakarma; Yoga*

INTRODUCTION

Ayurveda is coined by two words 'Ayur' i.e. Life and 'Veda' means science. Thus, *Ayurveda* deals with the science of life and it focuses on achieving the objective of promotion of health, prevention and management of disease for healthy & happy life in the ailing society. According to modern science, a health is state of complete physical, mental, spiritual and social wellbeing and not merely any disease. But *Ayurveda* explains the health as '*Swastha*' means the equilibrium of *tridosha (vata, pitta & kapha), saptadhatu* (seven bodily tissues), *trimala (mala, mutra, sweda)* along

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with proper functioning of *Atma, Indriya & Manas*. The imbalance of these factors gives rise to the disease. *Ayurveda* emphasizes on “*Swasthasya Swasthya-rakshanam, Aturasya Vikarmokshanam*”. It indicates that one should maintain the health or prevention of the health and if there is any disease, treat it. ⁽¹⁾ In today’s era, the incidence of non-communicable diseases (NCDs) or chronic diseases of lifestyle (CDL) is increasing as there is changing lifestyle or the ailments are primarily linked with one’s lifestyle and the way people live their life. It is the habit of person that distracts from healthy activities to sedentary routine. That why, these diseases are also called as ‘Lifestyle disorders’. According to WHO, lifestyle disorder are a subgroup of NCDs which kill around 71% of all deaths i.e. 41 million people each year globally.^(2,3,4) The distraction from enough exercise or physical, mental activity and push them towards sedentary lifestyle either due to their habits or their busy schedule or routines and are becoming more common day by day. By 2021, death rate of NCDs is expected to rise 42% in urban India⁽⁵⁾ According to a report published by ICMR (Indian Council Of Medical Research) in 2017, 3 out of 5 individuals leading causes of disease burden in India were NCDs with IHD, COPD as the top two causes and stroke as 5th leading cause.⁽⁶⁾

Lifestyle Disorders – The lifestyle disorders are

- Hypertension
- Diabetes Mellitus
- Cardiovascular diseases
- Obesity
- Cancer
- Hyperlipidemia/High cholesterol
- Behavioral problems

Table 1:-80 % Medicare Cost Factors Worldwide

Mortality (Death)	Morbidity (Illness)
Cardiac diseases	Hypertension
Cancer	Diabetes
Injury	Cancer
	Musculoskeletal
	Psychosomatic
	Gastrointestinal
	Respiratory

The main culprits of the lifestyle disorders are faulty, irregular & unhealthy dietary habits, irregular sleep, disturbed biological clock, sedentary lifestyle, genetic-physiological- environmental causes, and overdependence on the technology. The person’s lifestyle includes habits & behaviours, contributes along with unhealthy food, overeating, eating too much processed foods & fast food, eating habits on the name of starter-dessert-sweet-appetizer, energy drinks, artificial sweeteners, and carbonated water drinking habits. The disturbed biological clock with bad & disturbed sleep patterns, lack of physical activity, stress, habits of smoking-alcohol & drug abuse have great role in progression of NCDs.^(7,8) The nature and duration of the work, lack of exposure to nature-natural sunlight-fresh air also influences. Heredity, age, gender are unavoidable & uncontrollable factors which succumbs the lifestyle disorders. The modern perspective divides the causes of LSDs.

Table no.2:- Causes of LSDs are according to modern perspective.

Modifiable Risk Factors ⁽⁹⁾	Non-modifiable Risk Factors	Metabolic Risk Factors
i. bad food habits ii. Excessive use of alcohol iii. Eating & smoking tobacco iv. Physical inactivity v. Wrong body postures vi. Sedentary living vii. Stress viii. Bad sleeping habits ix. Lack of exposure to natural light & air	i. Heredity ii. Age iii. Gender	i. Increased blood pressure ii. Obesity iii. Increased blood glucose levels or hyper glycaemia iv. Increased levels of fat in blood or hyperlipidaemia

Table No.3: Risk Factors of Non-communicable diseases

Genetic Factors	Environmental factors	Socio-demographic factors	Factors of Self-Management	Factors Medical Conditions
Family History	Air Pollution	Age	Tobacco use	Medications
Genetic Inheritance	Weather Changes	Gender	Alcohol use	Blood pressure
Epigenetic change	Sunlight (UV radiation)	Race	Physical activity	Lipids
Environment exposure based (radiation)		Ethnicity	Person's weight	Glucose
Toxic material based mutations		Education	Food choice	Viruses

CHARACTERISTICS: - ⁽¹⁰⁾

- Complex etiology (Causes)
- Multiple risk factors
- Long Latency period
- Non-contagious origin (non-communicable)
- Prolonged course of illness
- Functional impairment or disability
- Incurability
- Insidious onset

PREVENTION: - ⁽⁷⁾

- *Nidan Parivarjana*- It is important step in the management of the lifestyle diseases to avoid the *Dosha* aggravating factors or disease causing factors in the diet & daily lifestyle of the person. It encompasses the idea to refrain from precipitating or aggravating factors.
- The activities which are aimed to reduce the likelihood of the disease/disorder. Early life decisions & influences can impact people later on in the life. This can be achieved if the parents set the children on the right path regarding their diet, habits, physical activities etc.
- Prevention of LSDs by avoiding the habits like smoking & chewing of tobacco, alcohol, drug abuse.
- Health promotion and preventive health measures to reduce disease burden at lower costs than NCDs therapy.
- Along with dietary modifications & physical activities, it is essential the participation of health care providers, government serving leaders, multistake holders, strengthened health care system.
- Quality lifestyle disease interventions through primary health care for early detection & treatment.

Ayurveda, a holistic, life science, gives more importance to the prevention of the disease and protection of the health, offering various regimens for management of LSDs/NCDs. It includes: ⁽¹¹⁾

- *Garbha-sanskara*
- Dietary modifications with dietary habits & daily routine.
- *Dincharya* (Daily regimen)
- *Rutucharya* (Seasonal regimen)
- *Rasayana* (Rejuvenation)
- *Panchakarma* (five detoxification & bio-purification therapies)
- *Sad-vrutta* (ideal routine)
- *Aachara-Rasayana* (code of conduct)

Garbhasanskar- As the current time is very fast, stressful & changing lifestyle pattern, the proportion of the NCDs or diseases are increasing along with genetic diseases affecting each cell of the body. The same effect is knowingly or unknowingly being reached into children by such effected seeds. Ancient saints gave the solution of this current issue in term of 'Garbhasanskar'. '*Garbha*' means fetus and '*Sanskar*' means to add good qualities and remove disorders in the foetus. Since from the time of conception, pregnancy and even after pregnancy, the good qualities, removal of disease, implanting the best values, empowering child's physical-mental-intellectual-all round qualities into the foetus for creating the excellent child, the *Garbhasanskar* is implemented. *Ayurveda* has given three phases/steps for *Garbhasanskar*-

1. The phase, before conception,
 2. Phase during the pregnancy,
 3. Phase after pregnancy.
1. The phase, before conception- according to *Ayurveda*, the person's constitution or '*Prakruti*' is made up of *vata-pitta-kapha* or its combined pattern. It influences on diseases developing in the future or some genetic disorders migrating to the offsprings from the parents. So, this phase of *garbhasanskar* tries to prevent all these effects. Doing *Panchakarma*, both the male & female seeds are cleansed and then those seeds are to be enriched. The elaborate scientific exploration of male & female meetings is also stated in *Ayurveda* whichever is included in this same phase.
 2. During pregnancy- It is all round development period of the baby. Hence, *Ayurveda* focuses and gives guidance on the development of the baby, mother's diet, lifestyle or routine, her thoughts, contemplation of mother in every month. '*Poonsavan sanskara*' is also done for proper development of the child.

3. After Delivery- After the birth of the child, many rituals of sanskars done for development of the child. 'Jatkarma sanskar', 'suvarnaprashana sanskar', 'Namakarana sanskar', 'Suvarnaprashana sanskara' is done to improve the intelligence and physical & mental development in the children.

Dietary modifications with dietary habits & daily routine: ⁽¹²⁾ *Ayurveda* always emphasizes on 'Ahara' and explained it in 'Trayopstambha'. 'Trayopsatambha' refers to three subsidiary pillars of the life which supports the life. They constitute: 'Ahara' (diet), 'Nidra' (sleep), 'Brahmacharya' (abstinence) ⁽¹³⁾. A Sanskrit word 'a-hara' means to take and *Ayurveda* has considered it as 'Prana' i.e. basis of the life ⁽¹⁴⁾. Ahara or diet is very vital for a human being as it provides many nutrients & promotes longevity. *Ayurveda* has explained the Ahara in various manner like Anna-varga i.e. ahara is divided into 13 groups like 'Shuka-dhanya', 'Shimbi-dhanya', 'Taila-varga' (different oils), 'Dugdha-varga' (varieties of milk), 'Krutanna-varga' (diet to be used for sansarjan krama). The rules & regulations about the ahara to be taken i.e. 'Ashta-vidh-ahara-vishesha-aayatana', 'Ahara-vidhi-vidhana' in terms of shad-rastmaka ahara & chaturvidha ahara. *Ayurveda* has emphasized on consuming healthy & nutritious diet for maintenance of good health. 'Hita-ahara' (Wholesome diet) described promotes health & longevity & 'Ahit-ahara' (unwholesome diet) promotes manifestation of different diseases. 'Viruddha-ahara' i.e. incompatible diet is explained by the Acharyas which should be avoided to maintain health and longevity ⁽¹⁵⁾. Pathya-apathya (do's & don'ts) for different diseases in the ancient texts. The studies shows that in CHD i.e. coronary heart disease, the plaque formation starts in childhood, infancy & the children under age two. To decrease the risk of CHD, the dietary recommendations like control of dietary low fat, dietary cholesterol, saturated & trans-fatty acids with weight management and physical activity are focused after the age two. ⁽¹⁶⁾

Dincharya- *Ayurveda* has given an importance to daily routine i.e. 'Dincharya'. Normal circadian rhythms are very important in day today life to maintain biological clock. The routine begins from daily habits with awareness, 'Brahmya Muhurta Uttishtet' (get up early morning, early rising), avoidance of suppression of natural urges i.e. 'Adharniya vega', 'Dantadhavana-Jivha-nirlekhana' (cleaning of teeth-tongue-skin) with fresh sticks of 'Khadira', 'Neem' plants, 'Abhyanga' (massage) to sarvanga (whole body) - pada (foot) - shira (head) with different oils as per constitution, 'Anjana' (coryllium), 'Nasya' (putting drops of medicated oils like 'Sesame oil-Anu-taila-Goghrita') 'Karnapurana' (oil to be poured in ears), 'Gandusha-Kawala' (gargling with decoction of ('Triphala' or Irimedadi oil) 'Snana' (regular-daily bath) which enhances appetite & promotes longevity. 'Vyayama' or exercise is important according to one's capacity or till the sweat rolls down from neck. Over-exercise gives adverse effects on the body. ⁽¹⁷⁾ Exercise daily & early in the morning helps to remove stagnation (srotorodha) in the body and recharges & rejuvenates the body-mind. Regular exercise helps for prevention & management of various diseases. Consume suitable & wholesome diet according to appetite and metabolic needs. Proper sleep provides health & longevity, improves complexion-glow. Avoid late night sleep and eating stale food. These might lead to imbalance in the circadian rhythms and thus long term imbalance predisposes to lifestyle disorders. Therefore, *Ayurveda* suggests staying aware about this daily regimen for day today promotion of health, boost immunity and prevention from lifestyle diseases ⁽¹⁸⁾

Rutucharya- This is seasonal variation in ahara and vihara according to rutu for prevention purpose. Behaviour according to rutucharya, keeps the tridoshic balance and seasonal body purification processes or 'panchakarma' includes 'basti karma' in 'varsharutu' (rainy season), 'vamankarma' in 'vasantrutu' (spring), 'virechanakarma' in 'sharadarutu' (autumn) are advised to maintain the equilibrium of tridoshas and to promote physical as well as mental health. ⁽¹⁹⁾

Rasayana: - Rasayana is very important aspect in *Ayurveda* meaning the rejuvenating therapy. In addition to food & diet, Rasayana, a special concept of medicinal dietary supplements are propounded. Rasayanas are used for nutritional supplement, medicinal purpose depending upon various types. Rasayana works on Dosha, sapta-dhatu, different srotasas. Some Rasayanas produce their nourishing & rejuvenating effect by promoting Agni-Bala acting as direct

nutrients and by way of *sroto-prasasdana* (purifying the body channels), which results in improvement of nutritional status. It leads in improvement of quality of *dhatu*s or body tissues. Some *Rasayanas* are intended to work on tissue & organ specific like ‘*Medhya Rasayana*’ for brain, *Hrudya rasayana* for heart, *Twachya Rasayana* for the skin. ⁽²⁰⁾ Rasayana makes each & every cell as well as tissues of the body healthy by favorably modulating the immune system, increases the span & quality of the life. ⁽²¹⁾

Sadvrutta and Aachararasayana: - Ayurveda emphasizes on code good conducts in sadvrutta and Aachararasayana. These codes of conducts under sadvrutta and Aachararasayana can be at personal level. E.g. early sleeping & awakening, avoid excess exertion, avoid suppression of natural urges, bathing, and skin cleaning.

Social includes keeping mercy on others, telling truth & soft speech, be courteous, be soft hearted & be soft in activities also, speak good-pleasant-little-only on the occasion, use cleaned & washed, avoid alcoholism.

Psychological and emotional conducts are to be in steady state i.e. avoid height of emotions, try to avoid memorizing if being insulted by anyone, keep patience. One should maintain a balanced mind during calamity & prosperity, no envy others towards wealth & happiness. The person, who adopts these conducts well, attains long life, health, wealth, reputation and the eternal world also. ^(22, 23)

Yoga: - Retention of lifestyle disorders through Yoga can be achieved.

1. Following ‘Yama’ (personal ethics), ‘Niyama’ (social ethics) to maintain personal & social health.
2. Following the practice of yogasana which helps to reduce the excess fat accumulated in the body.
3. Anuloma-viloma Pranayama helps to maintain the equilibrium of the body and mind as well as beneficial in the respiratory disorders.
4. Meditation helps for concentration and control over senses.

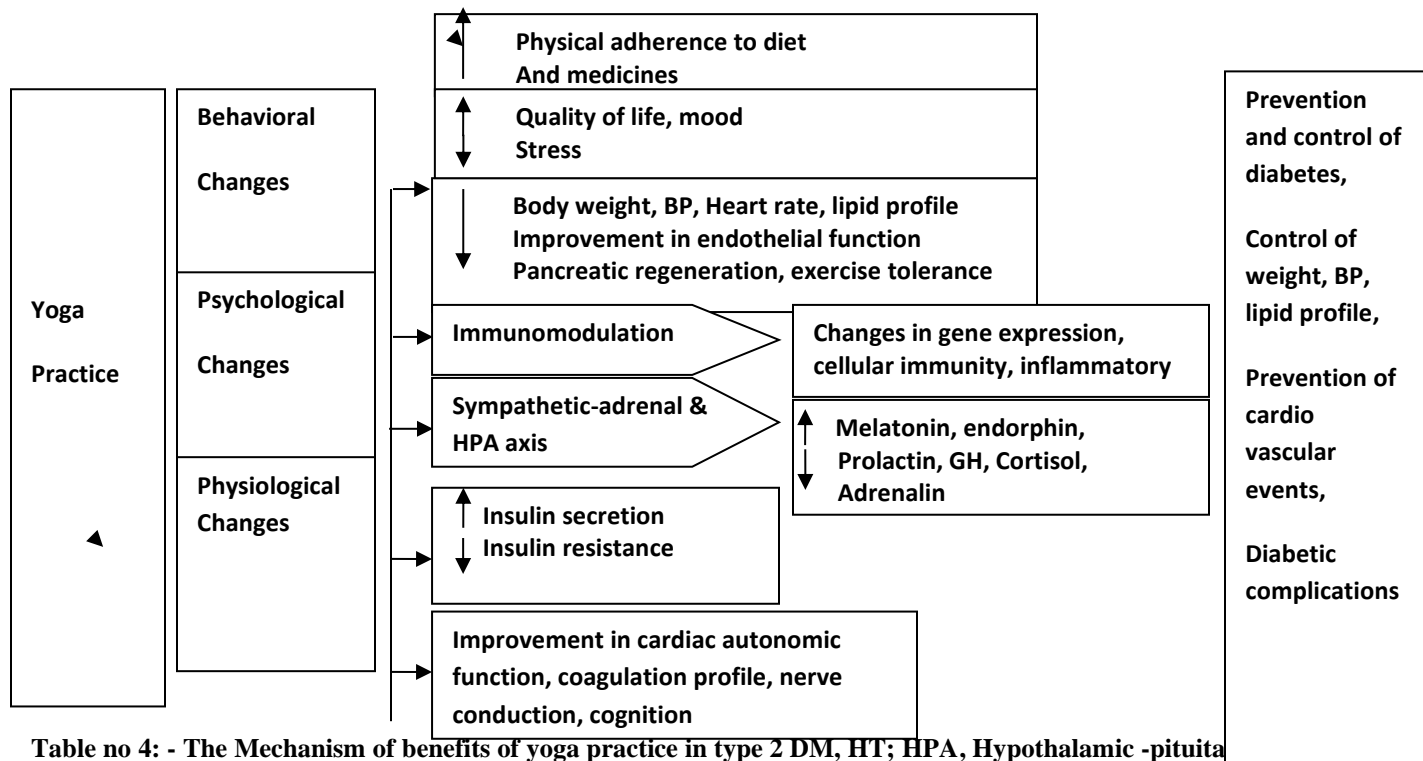


Table no 4: - The Mechanism of benefits of yoga practice in type 2 DM, HT; HPA, Hypothalamic -pituita adrenal; GH, Growth hormone. ⁽²⁴⁾

Yoga therapy is relevant for wellness & illness and has a potential role of yoga based lifestyle modifications in NCDs. The regular practice of yoga including asanas, yama-niyama-pratyahara-pranayama-dhyan-dharana as well as mudras, bandha, meditation all these helps to reduce the stress, protects body from adverse effects. It effects on psychoneuro-endocrine and immune mechanism. Parasympathetic activation and the associated anti-stress mechanism improve overall metabolic & psychological profiles decrease the burden of lifestyle diseases like diabetes, hypertension, hyperlipidemia, cancer, depression. ^(25, 26)

DISCUSSION AND CONCLUSION

The lifestyle diseases or NCDs/CDLs emerge from inappropriate relationship between people with the environment. Due to exposure over many decades, unhealthy diet, habits of alcohol-smoking, physical inactivity and stress, these increases the incidence of NCDs with long duration, incurability, many risk factors, high mortality rates.

Ayurveda has proven its role & importance in the management of NCDs. Different modalities in *Ayurveda* like *garbhasanskara*, dietary modifications, daily routine, seasonal variations in diet-routine, *Rasayana* therapy, *panchakarma*, code of conduct on personal & social level, *yoga*, meditation are helpful in the prevention and management of a wide range of LSDs. Community participation and civic engagement are associated with better self-reported mental health. Hence, in *Ayurveda* treats the disease with emphasis on its root cause. *Ayurveda* concentrates on achieving the objectives of promotion of health, prevention and management of disease for healthy life in the ailing society.

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