

## SCIENTIFIC CONTRIBUTION OF YOGA IN LIFESTYLE RELATED DISORDER OF CHILDREN.

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### ABSTRACT

*Lifestyle means a pattern of individual practices and personal behavioral choices that are related to elevated or reduced health risk. The diseases which primarily arise from the abnormal lifestyle of children are grouped under the term "Lifestyle Diseases". Now a days the risk of lifestyle disease become visible larger in children. This is because of unhealthy, harmful eating habits as soft drinks, chocolates; reduce physical activity such as more indulge in mobile, personal computer (PC), tablets etc. and in some cases due to addictive nature of smoking and alcohol. Diseases such as diabetes, depression, obesity, heart diseases and Inflammatory bowel disease are outcomes of poor lifestyle habits in children. The worrying fact is that all these diseases, which earlier used to affect mostly adults, are now becoming common among children as well.*

*Yoga has potential in the prevention, management, and rehabilitation of predominant lifestyle disorders in children. Various yogic practices help humans to strengthen themselves and develop positive health, thus enabling them to withstand stress better. The majority of studies on Yoga and cardiovascular and metabolic health show positive trends and this indicates well for the future of health care in general. Major benefits of Yoga may arise due to its healthy diet, activity, relaxation, positive attitude as well as psychosomatic harmonizing effects of Pranayama. Yoga is a holistic and integral science of life dealing with physical, mental, emotional, and spiritual health of the individual and the society. It play very important role in prevention and treatment of lifestyle disorder in children.*

**Keyword:** Yoga, Childhood, Lifestyle disorders, Obesity.

### INTRODUCTION

Meaning of "Lifestyle" is the way a person lives originally and this word coined by Austrian psychologist Alfred Adler in 1929. In childhood period these diseases fall under this category- Obesity, Cardiovascular diseases, Depression and Diabetes Mellitus<sup>1</sup>. In adult cardiovascular diseases (CVD) continue to be the major cause of mortality representing about 30 per cent of all deaths worldwide. Lifestyle diseases are defined as diseases linked with the way people live their life. People are predisposed to various diseases based on their way of living and occupational habits. They are preventable, and can be lowered with changes in diet, lifestyle, and environment. In children consuming

junk food, watching television for extended periods of time and lack of exercise are the three reasons to develop lifestyle diseases. According to the statistic sourced from the Indian Journal of Endocrinology and Metabolism approximately 8.82 per cent of school children in India are obese. Regular consumption of processed foods and fast foods is a major cause of obesity in India. Management of life style disorders are also primarily through dietary modifications and lifestyle changes like increasing physical activity.

The World Health Organization (WHO) defines health as “The state of complete physical, mental and social well-being and not merely absence of disease or infirmity.” We must not forget that it is more important to have both a sense of “being” healthy as well as “feeling” healthy. The practice of yoga was first developed in India and has evolved over thousands of years. Most lifestyle disorders poorly impact functioning of the autonomic nervous system (ANS). Yogic practices may have a role in the prevention and management of lifestyle disorder such as diabetes, hypertension, dyslipidemia and obesity<sup>2</sup>. Long-term Yoga practice is associated with increased insulin sensitivity and attenuation of negative relationship between body weight or waist circumference and insulin sensitivity. Yoga plays a vital role in normalizing physiology of body and mind<sup>3</sup>.

## LIFE STYLE DISORDERS OF CHILDREN:-

Due to change in food habits and reduce physical activity these lifestyle disorders are commonly found in children –

1. Obesity
2. Increased risk of diabetes
3. Heart disease
4. Depression and dyslipidemia
5. Inflammatory bowel disease.

Obesity is main life style disorder of children and other is complication of obesity. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. Generally, a child with a body mass index, (B.M.I.) of 25 to 29.9 is considered overweight and with a B.M.I. of 30 or higher is considered obese. Obese children are at a risk of developing Diabetes mellitus, cardiovascular diseases and Hypertension in the long term. Body Mass Index (BMI) for Age Charts uses height, weight, gender and age to assess a child's weight. A formula is used to calculate a child's BMI = weight in kilograms/ (height in meters)<sup>4</sup>.

In Ayurveda Acharya Charaka has described *Ashta Nindita Purusha* and emphasized in detail about two pathological conditions viz *Atisthula* and *Atikarshya*. *Atisthulapurusha* is worst among them, due to its complicated pathogenesis, variable complication and treatment. Obesity has been described as *Sthaulya* or *Medoroga* in Ayurveda but especially childhood obesity is not described in Ayurvedic texts. *Sthaulya*

is described under the chapter of *SantarpanajanyaVikara* (Disease caused by over nourishment)<sup>5</sup>. *Medadhātu* (adipose tissue) is the site of metabolic disturbance in an obese individual. *Meda* becomes increased due to ingestion of excessive *Sneha* and *Madhur rasa*<sup>6</sup>. A person in whom there is excessive accumulation of *Meda* (fat/adipose tissue) and *Mamsa* (flesh/muscle tissue) leading to flabbiness of hips, abdomen, and breast has been categorized as *Atisthula*. *Medas* is body tissue predominant in *Prithvi* and *JalaMahabhuta* as similar to *KaphaDosha*.

## ROLE OF YOGA IN LIFESTYLE DISORDERS OF CHILDREN

With rapid economic development and increasing westernization of lifestyle in the past few decades and prevalence of obesity, diabetes mellitus, hypertension, dyslipidemia etc. occurrence of one disease may act as a risk factor for the development of other condition. In these conditions, modification in lifestyle and regular practice of Yoga acts as complementary therapy for life style disorders. The holistic art and sciences of Yoga is the best lifestyle ever designed and is effective in the management of ever increasing metabolic disease. A regular practice of Yoga for three months (one hour in morning) is found to be effective in reduction of obesity by reducing body mass index, in hypertension by normalizing cardiovascular rhythm, decrease sympathetic activities and improve baro reflex sensitivity, in Diabetes by lowering Fasting blood sugar, PP Blood sugar and HbA1C levels.

Childhood Obesity is main disorder of life style and in future its major complication is diabetes, hypertension, dyslipidemia and depression. Childhood is a problem that can arise from various factors like heredity, lack of Exercise, wrong Food Habits etc. The treatment of overweight and obesity in children and adolescents requires a multidisciplinary approach with a holistic outlook. The components of overweight and obesity treatment include dietary management, physical activity enhancement, restriction of sedentary behaviour and Yoga. Yoga, which involves discipline and '*Aasanas*' that aid fitness and calm, helps children to develop positive thinking and good habits, and reduce stress. As a result, Yoga can bring about good health and keep obesity away. Certain gentle Yogasanas are helpful for prevention and treatment of childhood obesity. Yoga poses like *Aasanas*, *Pranayama*, meditation and relaxation techniques are helpful for weight loss, lessening of body fat and weight management.

Basic Yogic principles that are used in the management of lifestyle disorders include the following-

- ❖ Psychological repairing and development of appropriate attitudes.
- ❖ Relaxation and visualization to encourage a sense of inner calmness and well-being.
- ❖ Stress management through counseling, *Asanas* (postures) and *Pranayama* (breath-energy harmonizing techniques)
- ❖ Normalize metabolic activity through physical activity such as *Surya namaskar*, *Aasanas*, and *Pranayama*.

Shedding of excess fat and attaining ideal body can be achieved by practicing Yoga. The different yogic practices and yoga tips for treatments of the disorder are:-

1. **Sarvangasana** (Shoulder stand pose):- This *Aasana* improves the efficiency of the thyroid glands, which is responsible for correcting body weight and normalize the endocrine system that too control the condition.
2. **Padahastasana** (Forward bending asana):- This *Aasana* improves metabolic process of the body by acting on thyroid and pituitary gland, thus control it.
3. **Dhanurasana** (Bow pose):- This *Aasana* helps to burn excessive fat in the body.
4. **Paschimottanasana** (Back stretching pose):- This *Aasana* helps to remove excess fat in the abdominal region tones all the abdominal organs.
5. **Ardha-Matsyendrasana** (Half spinal twist poses):- This *Aasana* treats ailments like diabetes, indigestion, overweight and constipation.
6. **Bhujangasana** (Cobra pose):- This *Aasana* massages the abdominal organs, increases the flexibility of back and also regulated the thyroid gland. Good for childhood overweight.
7. **Pavan Muktasana** (Wind releasing pose):- This *asana* reduces abdominal fat.

#### Physical benefits of Yoga:-

- ❖ Increased flexibility
- ❖ Increased muscle strength and tone
- ❖ Improved respiration, energy and vitality
- ❖ Maintaining a balanced metabolism
- ❖ Weight reduction
- ❖ Cardio and circulatory health
- ❖ Improved athletic performance
- ❖ Protection from injury.
- ❖ By yoga blood cholesterol level is lower side along with blood glucose and other values drop towards acceptable levels.

#### Mental Benefits of Yoga:-

- ❖ Stress Reduction
- ❖ Body Awareness
- ❖ Better Sleep
- ❖ Improve self-confidence
- ❖ Relaxation.

## SUMMARY AND CONCLUSION

Now a days the risk of lifestyle disease become visible larger in children. This is because of unhealthy, harmful eating habits and lack of physical activity. Diseases such as obesity, diabetes, depression, heart diseases and Inflammatory bowel disease are outcomes of poor lifestyle habits in children. Yoga is an art as well as a science. It is a science, because it offers practical methods for controlling body and mind, thereby making deep meditation possible. A regular practice of Yoga for three months (one hour in morning) is found to be effective in reduction of obesity by reducing body mass index.

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