

# OCCUPATIONAL LIFE STYLE DISEASES- PREVENTIVE STRATEGIES FROM AYURVEDA

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## ABSTRACT

*Rapid urbanization and transitional shift from traditional to modern life style has led to emergence of life style disorders like obesity, diabetes, hypertension etc .there are several causative factors, however significant contributing factor is the **occupational nature of the people.***

*Recent studies reveal that, 75% of working women under the age group of 21-52 years suffer from depression, low backache, obesity, sleep related disorders, menstrual disorders like menorrhagia, dysmenorrhea, irregular menses, pcod, endometriosis etc. Due to long hours of work, stress etc. Our acharyas mentioned different paricharyas (mode of living) for female reproductive health one among them is rajaswala paricharya. So by following it during menses one can counter the adverse effects of present life style over reproduction by avoiding menstrual disorders*

*Heavy computer users are more prone to ocular diseases like glaucoma, myopia, computer vision syndrome, so in these conditions ayurvedic kriya kalpas like anjana, aschyotana, tarpana etc act as both preventive and treatment modalities. Likewise different occupations have different consequences on health which will be detailed in this paper along with ayurvedic preventive strategies like abhyanga,shirodhaara,nasya,dhumapaana etc according to their suitability in the preventive aspect.*

*The relevant material was collected from the classical textbooks and from peer reviewed articles like pub med etc.*

*In this revolutionized era one cannot stop doing the developmental work but we can certainly reduce our ailments by incorporating simple and effective preventive measures from ayurveda in day to day life.*

**Key words:** *occupational disorders, life style diseases, women health, rajaswala paricharya ayurvedic strategies*

## INTRODUCTION

Quality of life is the product of the interplay among social, health, economic and environmental conditions which affect human and social development.<sup>[1]</sup>

Quality of life is very extensive field so there are also a lot of indicators of its quality, such as:

- 1) Health and wellness factors like physical health, personal hygiene, nutrition, grooming, clothing, physical appearance and also psychological health cognitions.
- 2) Environment factors like Connections which the person has with his/her physical environments such as home, workplace, neighborhood, school and community.
- 3) Social connecting (family and friends, neighborhood (shelter), co-workers community).

So the quality of life is the product of the interplay among social, health, economic and environmental conditions which affect human and social development.

We can also say that quality of life reflects the difference, the gap, between the hopes and expectations of a person and their present experience

## HEALTHY LIFESTYLE

Lifestyle is characteristic way of individuals' life, determined by his behaviors which occur consistently in certain time of period. There are two different ways of lifestyle:

- Lifestyle which has positive impact on health,
- Lifestyle which has negative impact on health (bad life style consequently results in development of physiological abnormalities in the body at initial stage and pathological changes on long term. There by deteriorating the quality of life<sup>[2]</sup>).

Impact of experiences and of life circumstances are very important for forming and developing individuals' lifestyle since the early childhood. At that time role of the parents is of great importance. When child is older there are a lot of influences on lifestyle caused by education, health care, social factors and environmental factors.

Basically, a particular lifestyle of person is a cumulative product of his/her physical capacity co-ordinated with psychological functioning, displayed in the form of habits, behavior, dietary and living pattern based on his own training sought from childhood, and mimics he gained from his immediate companions including parents, siblings, peers, etc. Thus, it involves a pure psychological and innate control over the Physical and sensory activities. When this initiation, control, and co-ordination are disturbed, it leads to the derangement of lifestyle and results in any lifestyle disorder. Ayurveda narrated this phenomenon as 'Prajnaparadha' (intellectual blasphemy) asatmya indriyarthasamyoga which are the basic causes of any disease.<sup>[3]</sup>

People are predisposed to various diseases based on their way of living and occupational habits. Lifestyle diseases characterize those diseases whose occurrence is primarily based on daily habits of people and are a result of an inappropriate relationship of people with their environment. They are preventable, and can be lowered with changes in diet, lifestyle, and environment.<sup>[4]</sup> However the most significant factor is occupational nature of the people

The occupational pattern in India has undergone drastic changes in recent decades giving Priority to IT and other similar services neglecting the very base of the agrarian culture.<sup>[5]</sup> Along with these changes in occupation, the food habits of the society too changed that gradually caused the spread of several lifestyle diseases in our society. Some of the common diseases encountered because of occupational lifestyle are Alzheimer's disease, arteriosclerosis, cancer, chronic liver disease/cirrhosis, chronic obstructive pulmonary disease (COPD), diabetes, hypertension, heart disease, nephritis/CRF, stroke, obesity, diseases associated with smoking and alcohol and drug abuse, chronic bronchitis, menstrual disorders like pcod and infertility in both female and male .

### **Incidence<sup>[6]</sup>**

## **GENERAL STATUS OF OCCUPATIONAL HEALTH IN THE COUNTRY**

### **Occupational injuries and diseases**

The statistics for the overall incidence/prevalence of occupational disease and injuries for the country is not adequately compiled in an easily accessible format. It has estimated an annual incidence of occupational disease between 924,700 and 1,902,300 and 121,000 occupational disease caused deaths in India.. A report by National Institute of Occupational Health[1999], records more than 3 million people working in various type of mines, ceramics, potteries, foundries, metal grinding, stone crushing, agate grinding, slate pencil industry etc.

The major occupational diseases/ morbidity of concern in India are: silicosis, musculoskeletal injuries, coal workers' pneumoconiosis, chronic obstructive lung diseases, asbestosis, byssinosis, pesticide poisoning and noise-induced hearing loss.

The male: female working population ratio was 78:22 in 1991, but it has now changed to 68:32 in 2001. This increase in the working female population leads to certain concerns, such as adverse effects on reproductive health, exposure to toxic chemicals in the workplace, musculoskeletal disorders, stress related disorders, resulting from job discrimination (such as lower salaries and

less decision-making powers), a double burden of work (at workplace and home) and lurking and real threats of sexual harassment.

## OCCUPATIONAL RESPIRATORY DISEASES<sup>[7]</sup>

Occupational lung diseases (OLDs) are a broad group of pulmonary diseases developing either from repeated or persistent inhalation of particulate matters like

- a. metal fumes
- b. diesel exhaust like soot and poly cyclic aromatic hydrocarbons(PAH)
- c. Volatile organic compounds,
- d. Asbestos ,silica
- e. Biomass smoke
- f. Dust
- g. other known carcinogens

and constantly exposed occupations to these are coal miners ,paper and pulp mill workers, agricultural workers, welders, traffic police men ,home makers, petrol pump workers sandblasters, miners, millers, potters, flour mill workers, bakers, woodworkers etc. are exposed to inhaled particles and are at risk of developing these diseases. develop several lung related diseases associated with chronic obstructive pulmonary disease(COPD), asthma, asbestosis,silicosis,metal fume fever, pulmonary fibrosis, pneumoconiosis, lung cancer.

The most common symptoms of lung diseases, regardless of the etiology are coughing, shortness of breath, chest pain and constrictiveness, abnormal breathing patterns

### **Ayurvedic Perspective of Occupational Lung Disease**

Classical texts of Ayurveda have clearly mentioned the Nidana (etiological factors) like Dhoomopaghata (inhalation of fumes), Rajodhooma sevana (exposure to dust & smoke), Atishrama (strenuous work), Atichankramana (Prolong walking), Diwaswapna (day-time sleeping), Ratri jaagarana (awakening at night) etc. which directs towards exposure and life style related with specific occupations. It indicates that ancient practitioners of Ayurveda were well aware of the fact that occupation has its impact on human health.<sup>[8]</sup>

Acharya vagbhata also described the symptoms and management of Dhumopahata(person affected due to inhalation of fumes<sup>[9]</sup>).

Occupational lung diseases may be included in Shwasa and Kasa roga mentioned in ayurvedic texts due to the similarity in aetiopathogenesis and clinical presentation. As per the Ayurvedic principles, respiratory diseases have the predominance of Vata dosha along with vitiation of Kapha dosha and Pranavaha srotas (cardio-respiratory system)

### Ayurvedic Management

Ayurvedic approach of management of occupational lung diseases is to potentiate the immune system of the individual in order to reduce the susceptibility towards the inhaled particles & allergens and at the same time providing symptomatic relief to the patient.

- 1) In ayurveda for prevention or management of any disease the primary thing to be followed is nidana parivarjana (avoiding the exposure to causative factors) charaka as said in nidana sthana in the context of sosha nidana

सर्वमन्यत् परित्यज्य शरीरमनुपालयेत् which means best way to stay healthy is to follow all such regimen which is suitable to their own body and to avoid factors which disturbs homeostasis.

#### 2) Use of single drugs:

Kantakari, vasa, madhuyasti, bharangi, pushkaramoola, vibhitaki, shati, tulsi, shirisha,

haridra, lashuna, ardraka Ayurveda has potent single drugs and compound formulations for breaking the pathology of respiratory ailments. These ayurvedic drugs possess properties like mucolytic, expectorant, bronchodilator, mast cell stabilizer and have inhibitory action on mediators of inflammation.<sup>[10]</sup>

- 3) There are many rejuvenating (Rasayana) compound formulations in Ayurveda for these respiratory ailments like Agastya haritaki, Chyavanprasha, Vardhamana Pippali Rasayana etc. which improve the defense mechanisms of lungs thereby providing resistance against various respiratory infections.
- 4) Shodhana (Bio-purification) procedures Along with the above drugs, there are many bio-purificatory and rehabilitative therapies like
  - a) Abhyanga (massage) with sarsapa taila /saindavaadi taila on chest followed by
  - b) Swedana (hot fomentation),
  - c) Vamana (emesis therapy),
  - d) Virechana (purgation therapy) etc. for respiratory diseases.
  - e) Nasya with anutaila /sadbindhu taila either marsha /pratimarsha nasya on daily basis helps to remove accumulated kapha from the head region.

#### 5) Pranayama :

Practice of Pranayama is also found to be effective in managing respiratory diseases from occupational as well. practice of Nadi-shodhana Pranayama for longer duration on daily basis leads to marked improvement in the lung functions.

Dietary and Lifestyle modification Smoking, exposure of dust, cold and humid atmosphere, fumes, pollutants, chilled water, curd and curd preparations should be avoided and intake of lukewarm water may be preferred.

### Occupational Musculoskeletal Disorders

Occupational musculoskeletal disorders are injuries or disorders of the muscles, tendons, joints, cartilage, and nerves that are caused or exacerbated by sudden exertion or prolonged exposure to Physical factors include the work procedures, equipment and environment that lead to biomechanical stress in the muscles, tendons, spinal discs and nerves.<sup>[11]</sup>

- a. **vibration** (Excessive work with hand-powered tools like hammer drills and other percussive breakers like concrete crushers, hand-held portable grinders, jig saws and chainsaws, may expose the hands to vibration and contribute to potential disruption to the blood circulation in the fingers and to the nerves of the hand and arm).
- b. Working in low temperatures (**Cold environments**) & closed environments in the case of people working in research laboratories, software employers.
- c. Hairdressers, dentists, computer operators and musicians are examples of workers who have long-term **static postures**.
- d. **Prolonged standing** in the case of traffic police, teaching fields, bus conductors, etc
- e. **Prolonged sitting** in the cases of software employees, business people, drivers,
- f. **Manual handling** refers to the transfer, pushing, pulling and carrying of loads by one or more employees.
- g. **Repetitive, forceful work with the joints in an awkward position** is one of the most important combinations of risk factors. It can be seen for example in Health care professionals (physicians, dentists, physical therapists, lab technicians, and nurses) they are reported to be vulnerable to sustaining musculoskeletal disorders during the course of their work routine like handling an excessive number of patients or samples in one day were found to be the most commonly reported job risk factors.<sup>[12]</sup>
- h. Employees working on computers and peripheral devices due to poor sitting posture, unsuitable seating (chair), and inappropriate use of keyboard or mouse, excessive use of mobile phones which was used for a long time, can lead to chronic disabilities.
- i. Traffic on the Indian roads is also responsible for many common ailments for frequent travelers or those who earn their living by driving. Bumpy ride shakes our body too much and the impact generated is so high that it damages the vertebra with time causing spinal cord injury<sup>[13]</sup>