

YOGA AND ALTERNATIVE SYSTEMS OF MEDICINE



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### Yoga: The Art of Being and Science of Well-Being

### Introduction

- Yoga is an **inner science** comprising of a variety of practices and methods through which human beings can achieve a **union between the body and the mind** to attain self-realisation.
- The aim of yoga practice (sadhana) is to **overcome and endure all kinds of sufferings** that leads to a sense of freedom in Every Walk of life with holistic health, happiness and harmony.
- Yoga is a perfect **Wellness module** as it is comprehensive and holistic in its nature. Yogic Principles of Wellness help to strengthen and develop **positive health** enabling us to withstand stress better.

### **Scientific Studies on Yoga**

- Modern day lifestyle has brought in many challenges to health and has become a major cause for many ailments among people across globe.
- Stress, improper dietary habits and sedentary living have led to decline in health, performance and led to diseases such as diabetes, asthma, cardiovascular diseases, metabolic disorders and cancer.
- Yoga is useful in combating these disorders and shows that science and spirituality need not always be treated as separate entities. Yoga has the potential to solve the lifestyle problems and psychosomatic diseases.
- The studies indicate improvement in physical and cognitive performance, body flexibility and distress tolerance. It also strengthens our immunity thereby preventing diseases.

### **Promotion of yoga**

- UNESCO inscribed yoga in the representative list of Intangible Cultural Heritage of Humanity. Yoga
  was inscribed in in UNESCO's list of Intangible Cultural Heritage of Humanity during the 11th
  session of the Intergovernmental Committee for the safeguarding of the Intangible Cultural
  Heritage held in Addis Ababa, Ethiopia in December 2016
- **Inclusion of Yoga in National Health Policy 2017**: The National Health Policy 2017 recommended introduction of Yoga in school and at work places as part of promotion of good health.
- In order to promote Yoga as a part of school curriculum Yoga education was made compulsory by **National Council for Teacher Education (NCTE)**, a statutory body under Ministry of Human Resource Development, through its 15 Teacher education programmes.
- **Yoga Certification Board**: Established by ministry of AYUSH for certification of yoga professionals and accreditation of Yoga institutions and personnel Certification Body.
- National Eligibility Test (NET) in Yoga has been conducted for Lectureship and Research Fellowship.
- Ministry of External Affairs (MEA) under auspices of Indian Council for Cultural Relations(ICCR) also deputes Yoga teachers to Indian missions for imparting training to local students and teachers.
- National AYUSH mission: It inter-alia makes provision for the following: -
  - (i) Upgradation of exclusive State government AYUSH hospitals and dispensaries including Yoga.
  - (ii) Setting up of up to 50 bedded integrated AYUSH Hospital including yoga.
  - (iii) Under the flexible components of the scheme of NAM, provision has been made for Grant-in-aid to the yoga Wellness centres.

### Conclusion

Yoga is a science and a way of healthy living, which helps to achieve a harmonious personality.



- Cost of medicine is going beyond the reach of poor and middle-class people. The holistic wisdom of yoga and other ancient health systems offers the necessary wisdom, experience and capabilities that are crucial for such transformational change.
- Yoga is proving to be the most desirable traditional system of health and well-being in the present scenario.

### **Questions**

1)	Do you t	hink cou	rses in yo	ga and I	ndian c	ulture	should	mandatorily	be intro	oduced i	n
al	I schools.	. colleges	s and unive	ersities	across	India?	Critical	lv comment.			

### **Increasing relevance of Yoga in Modern Times**

### Introduction

- Yoga is one of the most **ancient Indian philosophical system** propounded by sage Patanjali (150 BCE).
- Yoga should become a lifestyle and people should control their food habits, entertainment, trade and commerce in order to be good citizens of the country.
- Ever Since **UNO declared June 21**st as International Day of Yoga (IDY), celebration of this IDY has become a global phenomenon.
- The Union Government through the **ministry of AYUSH** is promoting Yoga for integrated health of people, irrespective of cultural, racial and religious barriers.
- The aim of the Government is to promote and encourage the youth who have excelled and achieved in the disciplines of Yoga and sports. Hence there is a serious effort to popularize Yoga from School to University levels.

### **Yoga-Indian ethos:**

- Yoga should become a part of our everyday life. Yoga is an **ancient Indian science** having a scientific background which has an antiquity of 11,500 years.
- Practice of Yoga can enhance physical, mental, emotional, intellectual and spiritual powers of people.
- India is in the frontline of information technology, biotechnology, nano-science and other types of
  research. The internal and external stresses of people in these fields can be relieved by practicing
  Yoga and also for attaining peace and comfort. Various Yoga organisations and NGOs and several
  central universities have popularised Yoga worldwide with untiring efforts.

### **Yoga and Health:**

- The systems of Ayurveda, Veda and Yoga have enhanced the health and longevity of Indians since time immemorial.
- Charaka while elaborating on the issue of health of an individual says that complete health means
  the totality of healthy body, sense organs and pleasant mind which has been incorporated in the
  motto of World Health Organization.
- In this context, the great contributions of ancient Indian medical doctors like **Charaka**, **Sushruta**, **Vagbhata**, **Madhava**, **Nagarjuna**, **vedic sages** and others merit our attention.

### **Yoga- A panacea for Modern Diseases:**

- Yoga and meditation are very important tools in controlling Diabetes which has spread like an
  epidemic disease the world over and India is soon emerging as a second Diabetic capital of the
  world.
- The world-renowned scholars and research centres have accepted that **Yoga can cure diseases** such as Diabetes, Obesity, Cancer, Hypertension and other non-communicable diseases.
- The practice of Yoga would help people to live healthily, happily, harmoniously and people can be free from various ailments and diseases.

### **Yoga and Youth:**

- Yoga should be imparted to children from the very young age and it should become their lifestyle.
- Yoga would become a powerful means for promoting ageless Indian culture and tradition.
- Indian youth who form more than 50% of total Indian population should practice Yoga for the overall development of their personalities.



- One can learn good habits, become model citizens on the country by **practising Yoga ethics** and this alone can bring holistic health for people
- Worldwide people, irrespective of caste, creed, religion etc., have been finding a fundamental solution to the problem of stress and tension through Yoga
- Yoga could promote the concept of 'Earth is but one Family' (Vasudhaiva Kutumbakam). India can
  emerge in Yogic and spiritual planes and earn the encomium of Yoga Vishwa Guru (World Yoga
  Preceptor) among the comity of Nations in the coming years.

### Questions

- 1) What are the benefits of practising Yoga? Do you support the increasing importance and patronage given to Yoga by the government? Critically comment.
- 2) Should the practice of yoga be made compulsory for all school children and government employees in India? Substantiate.
- 3) "Every investment in combating non-communicable diseases is a means of promoting development." Elaborate the statements and discuss the threats of non-communicable diseases to economy and measures needed to be taken to address these threats.

### **Yoga for Lifestyle Changes**

• "If you must be mad, be it not for the materialistic things of the world, be mad with the love of Yoga" – B.K.S. Iyengar

### Introduction

- The purpose of life is to lead a happy life. Yoga promotes Lifestyle for happiness. Maintaining good health is the very foundation of a happy life.
- Physical inactivity, smoking, alcohol, stress and unhealthy food are the major reasons for all Lifestyle problems. Yoga is a way of life and the main remedy for all sufferings. Today, lifestyle changes are the need of the hour
- According to the 2019 edition of the Bloomberg healthiest Country Index, India is placed at 120th rank among 169 countries related to measures such as mortality by communicable and noncommunicable diseases and Life expectancy.
- India spends less per person in comparison to US. Sri Lanka, Bangladesh and Nepal ranked better than India.
- Physical inactivity is now identified as the fourth leading risk factor for global mortality.
   Unhealthy diet was the second biggest factor in India driving most deaths and disability combined after malnutrition.
- Food borne diseases cost India \$ 15 billion. According to World Health Organisation, there is no improvement in global levels of physical activity since 2001. People with a sedentary Lifestyle are twice at risk than the physically active ones.

### Lifestyle changes include

- Absence of disease
- Optimal physical fitness
- Proper nutrition
- Spiritually
- Smoking cessation
- > Stress management
- Substance abuse control
- Health education
- Environment support
- Yoga is the science of activating inner energies; blossoming of human potential to its fullness is Yoga; yoga is Health Insurance at zero budget; yoga is a passport to health assurance; yoga is secular nature and Science;
- Yoga is a powerful antidote to the stresses of modern daily life. As 3 principles: Purification, concentration and liberation. According to yoga sutras " yoga sutures the wounds of life".

### **Assessing fitness**

- There is strong evidence to demonstrate that adults between the ages of 18 to 64 years should do at least 150 minutes of moderate intensity aerobic physical activity throughout the week.
- We have to keep in mind that 65 per cent of India's population is under the age of 35; 50% of India's population is under the age of 25. **Future India should be healthy and fit.**
- Yogic practices are considered as perfect exercises because they are more natural by using the Stored energy from the body itself.
- Scientific findings on yoga are: yogic practices enhance grey matter for cognition and white matter for communication; enhance white matter to avoid depression which is the number one reason for ill-health.

### Alternative systems of medicine in India: An Overview

### Introduction:

- Traditional medicine (TM) along with complementary medicine (CM) and alternative medicine (AM) are terminologies that are often used interchangeably for a broad range of Healthcare practices.
- These systems all put together are referred to as Traditional and Complementary medicine (T&CM).
- India has a rich culture of T&CM, the **alternative systems of medicine (ASM)** which include both Indian/ indigenous systems i.e, ayurveda and Siddha as well as those not originated in India i.e. Homeopathy.
- The history of medicine indicates that almost **every major civilization and culture had developed their own system for curing diseases,** though the approaches varied. From the very beginning of
  the human civilization, there has been an interest in controlling diseases, ensuring good health and
  prolonging life.

### India and alternative systems of medicine

- In the last three decades, there have been focused initiatives to mainstream traditional and alternative systems of medicine in health care services in India.
- A fully independent **Ministry of AYUSH** was formed in November 2014.
- The current National health policy of India has proposed functional linkage of AYUSH at all levels of health systems, including service delivery as well as workforce.
- The policy proposal focuses on inclusion of yoga at workplace, in schools and in the community as an important form of promoting health and Wellness.

### Discussion on the way forward

- The current and predicted increasing burden of chronic and Non-communicable diseases (NCDs) is
  often considered the most urgent reason for developing and strengthening collaboration between
  conventional and T&CM health sectors.
- The study of state level burden of diseases in India has highlighted the emerging burden of NCDs, which mandates higher provision of preventive and promotive health services, along with curative and diagnostic services.
- Many T&CM (especially Ayurveda Yoga and Naturopathy) largely focus on principles of Wellness and Health Promotion.
- The ongoing initiatives at all levels need support through government leadership and financing
- The research on different aspects of T&CM and the use of proven methods and approaches need to be promoted in addition to ensuring the availability of these services for the people.
- More strategic approaches are needed in this area including building the knowledge base for T&CM
  through facilitating national policies; capacity building; further strengthening of quality assurance,
  safety, proper use and effectiveness of T&CM by-products, practices and practitioners and by
  integrating T&CM services into healthcare service delivery and self-healthcare.

### **Conclusion**

- There is a focus, both globally and in India, on strengthening Primary Health Care (PHC) and advancing UHC, which would require interventions at all levels of health systems.
- The shift towards burden of non-communicable diseases and the availability of trained Health resources and extensive infrastructure in T&CM are opportunities on which India can embark upon for becoming a healthy Nation.



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•	This would also need the right mix of Preventive, promotive and curative health services and increasing integration of traditional complementary and alternative systems of medicine (T&CM) in conventional health system.



## DO YOU KNOW?



# UN World Environment Day June 5, 2019





orld Environment Day (WED) is celebrated on the 5th of June every year. WED was established in 1972 during the United

Nations Conference on the Human Environment, which led to the creation of the United Nations Environment Programme (UNEP). Its aim is "encouraging worldwide awareness and action for the protection of our environment". World Environment Day is the 'people's day' for doing something to take care of the Earth.

Each World Environment Day is organized around a theme that focuses attention on a particularly pressing environmental concern. Every World Environment Day has a different global host country, where the official celebrations take place.

In 2018, India was the host for World Environment Day and the theme was focussed on Plastic Pollution, which is one of the most challenging environmental concerns today.

In 2019, China is the host for World Environment Day celebrations on the theme, 'Air Pollution'.

According to a new UN report, millions of lives could be saved and one billion people living in Asia could be breathing clean air by 2030 if 25 simple and cost-effective measures are implemented. Currently, about 4 billion people - 92 per cent of Asia and the Pacific's population - are exposed to levels of air pollution that pose a significant risk to their health.

The report, Air Pollution in Asia and the Pacific: Science-based Solutions, is the first comprehensive scientific assessment of the air pollution outlook in Asia and the Pacific. It details 25 policy and technological measures that will deliver benefits across sectors. These are as follows-

## 25 CLEAN AIR MEASURES

### Strengthen emission standards for road vehicles

Strengthen all vehicle emissions standards with a special focus on regulation of light and heavyduty diesel vehicles. This will require collaboration between environmental agencies, transport agencies, oil companies and vehicle manufacturers, among others.

### Regularly maintain and inspect vehicles

- Introduce legislation and enforcement of regular mandatory emission checks and maintenance. This includes random tests to prevent extended use of vehicles with failed emissions abatement systems.
- b. Centralize inspection and maintenance systems and establish self-funding mechanisms for regular audits at test centres.

### Mainstream electric vehicles

- Develop fiscal and non-fiscal policies to promote electric
- Invest in required infrastructure to encourage quicker uptake of electric vehicles

### Provide better mobility options

- Improve public transport system to encourage shift from private passenger vehicles to public transport and integrate with sustainable urban planning.
- Invest in walking and cycling infrastructure (sidewalk and bikepaths, sufficient lighting, bike sharing options, etc.)

### Control dust from construction and roads

Suppress construction and road dust through dust control measures including road washing and cleaning, road paving, water spraying, installation of barrier protection, avoiding dust-

- generating work during windy days, etc.
- Increase green spaces and areas especially in cities. This includes public parks, gardens, etc.

### Reduce emissions from international shipping

- Require low-sulphur fuels and control of particulate emissions.
- Collaborate with the International Maritime Organization to widen the ratification and implementation of International Convention for the Prevention of Pollution from

### Improve post-combustion control

- Introduce state-of-the-art endof-pipe measures to reduce sulphur dioxide, nitrogen oxides and particulate emissions at power stations and in large-scale industry.
- Examples include flue gas desulphurization for sulphur dioxide, selective catalytic reduction for nitrogen oxides. and high efficiency particulate matter controls like fabric filters, multistage electrostatic precipitators.

### Strengthen industrial process emissions standards

- Introduce advanced emissions standards in industries, e.g., iron and steel, cement, glass production, chemicals, etc.
- Strengthen production, performance and emission standards to control end-of-pipe emissions and fugitive emissions. This will stimulate investment in pollution control and/or cleaner technologies.

### 9. Introduce efficient brick kilns technology

Improve efficiency and introduce emissions standards to stimulate shift to more efficient brick kiln technologies (such as zig-zag, vertical shaft brick kiln or tunnel



kilns). This requires collaboration among kiln owners, technical experts, and government to demonstrate benefits of cleaner kiln technology.

# 10. Control methane from oil and gas production

- Encourage recovery of oil production and associated petroleum gas.
- Stop routine flaring and either utilize or convert to liquids that can be sold at higher value.
- Improve leakage controls in gas production and distribution networks.

# 11. Improve solvent use and refinery controls

- Introduce low-solvent paints for industrial and do-it-yourself applications.
- Improve solvents recovery in industry. If not feasible, incinerate flue gas rich in hydrocarbons.
- c. Establish leak detection and repair programs at refineries. Install double seal systems, vapour recovery unit, fixed covers and monitoring at refineries and fuel depots.

# 12. Use environmentally-friendly refrigerants

- a. Ensure full compliance with Kigali Amendment to phase-down hydrofluorocarbons which are commonly used in air conditioning, refrigeration and a host of industrial products.
- Establish regulations to support shift to low- global warming potential cooling agents.

# 13. Provide clean cooking and heating options

- Use clean fuels electricity, natural gas, liquefied petroleum gas in cities, and liquefied petroleum gas and advanced biomass cooking and heating stoves in rural areas.
- Substitute coal with briquettes for cooking and heating.

# 14. Strictly enforce bans on household waste burning

 Strictly enforce bans on open burning of household waste. Burning ban needs to be complemented with comprehensive solid waste management plan including proper waste collection system, recycling, waste treatment, and awareness raising.

# Provide incentives for improved energy efficiency in households

- Provide incentives to improve energy efficiency of household appliances, buildings, lighting, heating and cooling.
- Encourage rooftop solar installations.

## 16. Increase renewable electricity generation

- a. Establish renewable energy targets and supporting policies to achieve target. This includes providing incentives to foster extended use of wind, solar and hydro power for electricity generation and phase out least efficient plants.
- Leverage public pressure to switch from fossil fuels to renewables.



## 17. Improve energy efficiency for industry

- Introduce ambitious energy efficiency standards for industry.
- Include energy efficiency targets for industry in national development plans.

#### 18. Recover coal mining gas

- Encourage pre-mining recovery of coal mine methane gas.
- Provide fiscal incentives, welldefined gas property rights and unsubsidized free gas market.

# 19. Improve livestock manure management

- a. Introduce covered storage (floating or permanent covers) and efficient application of manure (when plants need fertilizers, rapidly incorporate manure in soil or as narrow bands in canopy or grassland).
- Consider low emission options for new animal housing: regular floor scraping, air ventilation cleaning, closed storage tanks.

### 20. Strengthen management of nitrogen fertilizer application

- Establish efficient nitrogen fertilizer application (right timing and amount). Substitute urea and ammonium bicarbonate with e.g. ammonium nitrate fertilizer.
- Promote alternative formulations, e.g., neem coated urea, or use of urease inhibitors, where available and affordable.

# 21. Better management of agricultural crop residues

a. Manage agricultural crop residues, including strict enforcement of bans on open burning. Complement burning ban with measures that use the residues. This includes alternative off-site use, technologies that plough residue into fields, no-till agricultural practice, or using residues as bedding for livestock or biogas digesters.

### 22. Prevent forest and peatland fires

a. Improve and enforce forest, land and water management and fire prevention strategies. This includes fire spread protection zones, fire alarm and brigade system, prohibit access to forests during droughts, and ban on land clearing.

# 23. Promote more efficient rice production practices

a. Encourage intermittent aeration of continuously flooded rice paddies (e.g. alternative wetting and drying – practice of allowing the water table to drop below the soil surface at one or multiple points during a growing season).

## 24. Stop biogas leakage from wastewater treatment

- Introduce well-managed two-stage treatment with biogas recovery.
- Promote decentralized wastewater treatment units.

### 25. Improve solid waste management

a. Encourage centralized waste collection with source separation and treatment, including gas utilization.

Sources- United Nations Environment Programme & Climate and Clean Air Coalition (CCAC)