Ayurveda: Scientific Aspects, Strengths, Infrastructure and Regulations.

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No ‘unified’ theory explains Man – Universe relationship despite centuries of quest for it by the greatest minds...

The PANCHA MAHABHUTA Model of Ayurveda is a probable answer
Panchamahabhuta

Biological applications of Panchamahabhuta

VAYU

AKASHA

VAYU

TEJA

JALA

PRITHVI

VATA

PITTA

KAPHA

Fundamental Principle: Unity of Man and Universe

Puruṣo Ayam Loka Sammitah

Solid substratum

(Motional energy)

(Chemical activities)

(Solid substratum)
BASIC CAUSE OF DISEASE

LACK OF HARMONY
Between
ENVIRONMENT (Loka) & MAN (Purusha)

Due to Ayoga (Absence), Atiyoga (Excess) or Mithyayoga (Abuse) Kaala (Time factor and its chronological influence), Buddhi (Intellect of man is the major source of thought information and its consequences) & Indriyartha (Objects of the Senses are the major hubs of information exchanges)
Some Salient Applied Aspects:

- Concept of Prakriti (Constitution)
- The Total Personality: Physique, Physiology & Psyche
Scientific Concepts of:

- Aahaara (Diet),
- Nidra (Sleep) and
- Brahmacharya (Regulated Sexual Activity)

are stated to be the 3 pillars of Health and can be seen in the modern light of Lifestyle management of health.
Ayurvedic Medicines

- Safe
- Cost effective
- Natural
- Acceptable
- Holistic
In view of the Principled, Codified and Systematic approach and strengths of Ayurveda, the Walton Committee appointed by the House of Lords, UK, put Ayurveda medicines in the Group-1 scientific category of professionally practiced Complementary & Alternative Medicine.

About 20 years back, W.H.O. adopted Traditional Medicine programme in conjunction with the goal of health for all with the adoption of primary health care approach. W.H.O. has an open mind on Traditional Medicine. However, it endorses only that therapy which has solid scientific evidence with no toxicity. In view of this Ayurveda is duly recognized by W.H.O.

Training: UG- GAU, Jamnagar
- PG- NIA, Jaipur, GAU, Jamnagar
The Huge Infrastructure of AYURVEDA in India today indicating the signs of a Living Tradition Parallel to Allopathic system

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National level Institutions of Ayurveda

- National Institute of Ayurveda, Jaipur
- Institute of Postgraduate Training & Research in Ayurveda, Jamnagar
- Gujarat Ayurveda University, Jamnagar
- Rajasthan Ayurveda University, Jodhpur

Regulation of Education & Practice of Ayurveda in India

Central Council of Indian Medicine (CCIM) for Ayurveda, Siddha & Unani systems established under Indian Medicine Central Council Act, 1970.
The Institute imparts teaching and training for:

- Under-Graduate (BAMS) – 60 per year
- Post-Graduate (MD- Ayurveda) – 55 per year
- Ph.D. program. – 15 per year
- Foreigners Training program.

**HOSPITALS**

The Institute has 2 affiliated hospitals -
1. Institute Hospital (*Madhav Vilas Hospital*) situated in the campus and
2. *Seth Suraj Mal Bombaywala* Hospital

**OTHER FACILITIES**

- Classrooms well equipped with latest Audio Visual facilities
- Highly qualified and experienced faculties.
- Use of latest Information Technology for teaching & Research.
- Ayurvedic Drug Manufacturing Unit.
The regulatory Act and the Rules thereunder are common for allopathic and Indian medicines & homeopathic drugs. There is a separate chapter for Ayurveda, Siddha and Unani medicines introduced since 1982 in the Drugs & Cosmetics Act, 1940.

The Drugs & Magic Remedies Act, 1954 provides for prohibition of advertisements of certain drugs and magic remedies for treatment of certain identified diseases and disorders and for prohibition of import into and export from India of certain advertisements relating to drugs that may mislead the public.

Pharmacopoeia & Formularies

- Pharmacopoeial standardization of drugs is mandatory as per Drugs & Cosmetics Act, which was amended in 1964 to bring under its purview Ayurveda, Siddha and Unani drugs.
- Pharmacopoeial Laboratory of Indian Medicine was set up in 1970.
- Ayurvedic Formulary of India containing 444 compound formulations in 1978.
- Subsequently in the year 1986, first volume of Ayurvedic Pharmacopoeia with 80 monographs of single plant drugs was published. Presently 5 volumes covering 418 plants are available.
- 13 laboratories of certain universities & scientific institutions have been engaged apart from Pharmacopoeial Laboratory of Indian Medicine.
- These laboratories are also evolving Standardized Operating Procedures (SOPs) of Ayurveda drugs.
The mandate of Research & Development in literary, clinical and drug areas; survey, validation and documentation of tribal and folk-lore practices & remedies and other scientific activities related to respective systems is assigned to central research councils.

- Central Council for Research in Ayurveda & Siddha (CCRAS)
- Central Council for Research in Unani Medicine (CCRUM)
- Central Council for Research in Homeopathy (CCRH) and
- Central Council for Research in Yoga & Naturopathy (CCRYN)
Thrust to Medicinal Plants Sector

- One National Medicinal Plants Board
- 30 State Medicinal Plant Boards
  - to coordinate the activities of development of medicinal plants sector in a concerted manner.

- The objective of this arrangement is to streamline Conservation & Cultivation, Demand & Supply, Research & Development, Trade & Export, Quality Control & Standardization of medicinal plants & products.

- 32 medicinal plants used in the manufacture of Ayurveda, Siddha, Unani and Homeopathy medicines are prioritized for large-scale cultivation through organic farming and use of agro-technology.
Some Important Researches on Ayurvedic Medicinal Plants:

- **Brahmi (Bacopa Monnieri)**: regulates brain biogenic amines and influences the discrimination of learning. – Dubey GP in Ayurveda & its Scientific aspects P: 126, CSIR & AYUSH, 2006

- **Ashwagandha (Withania somnifera)**: Relieves Stress and Anxiety.

- **Arjuna (Terminalia arjuna)**: Effective in management of CVD. Good cardio-protective

- **Guduchi (Tinospora cardifolia)**: Immunomodulator.

- **Vijayasar (Pterocarpus marsupium)**: Anti diabetic
In order to prevent patenting of claims emerged from traditional knowledge that already exists in public domain, the Government has taken in hand an ambitious project of development of **Traditional Knowledge Digital Library** for Ayurveda, Unani, Siddha and Yoga.

- First phase of Ayurveda **TKDL** is over, which contains 36,000 formulations described in 14 Ayurvedic texts.
- The digital library is prepared in English, Hindi, Spanish, French, German and Japanese languages in international patent compatible format.

**Golden Triangle Project:**
AREAS OF STRENGTH OF AYURVEDIC MEDICINE WHERE RECENT RESEARCHES HAVE YIELDED LEADS

- ANTISTRESS AND NEURO ACTIVE DRUGS
- IMMUNOMODULATORS AND ADAPTOGENS
- ANTIARTHRITIC DRUGS
- CARDIO PROTECTIVES AND HYPOLIPIDAEMICS
- ANTI DIABETICS
- PANCHAKARMA AND KSHARSUTRA TREATMENT
Apart from neighboring countries like Sri Lanka, Nepal, and Mauritius, Ayurveda has been recognized as a system of health care in Hungary.