

PHARAMACEUTICS-I

SUBJECT CODE – BP103T

UNIT – 1
LESSON – 4

Pharmacopoeia

Introduction of Pharmacopoeia:

Pharmacopoeia has been the authoritative organization working to ensure the consistency and quality of medicines.

Pharmacopoeia is the formulation of drugs. It is the standard book for preparation of drugs. The book is published in a country under the authority of its own government.

Pharmacopoeia is derived from Greek word

Pharmakon - Drugs

**Copoeia - Means to
make**

Type of Pharmacopoeia / List of Pharmacopeia

- We cannot call it a specific type because every country has a own Pharmacopoeia.

- Noteskarts will discuss Pharmacopoeia of some countries. First of all, let's know about our Indian Pharmacopoeia. When did this book become public, Which edition of it is running now?

- Indian Pharmacopoeia
- British Pharmacopoeia
- United States Pharmacopoeia

Indian Pharmacopoeia:

The Indian Pharmacopoeia is published by the Indian Pharmacopoeia commission (IPC) on behalf of the ministry of health and family welfare Government of India.

- Bengal Pharmacopoeia 1844 - But this book was not made public, just this name was kept.
- Legal and official book published by IPC-1945.
- Indian Pharmacopoeia Headquarter - Ghaziabad (Uttar Pradesh)
- Indian Pharmacopoeia commission (IPC) regulated by Ministry Of Health And Family Welfare.
- Indian Pharmacopoeia is written in English and official title of monographs given in Latin.
- The Indian Pharmacopoeia is being processed to fulfill the requirement in the Drug And Cosmetics Act 1940 and rules 1945.
- In 1946 the government of India published the Indian Pharmacopoeia list which served as the supplement to British Pharmacopoeia.
- After publication of list the government of India constituted a permanent Indian Pharmacopoeia committee in 1948.
- Indian Pharmacopoeia committee under chairmanship of Dr. B.N. Ghosh published First Edition of Indian Pharmacopoeia in 1955.
- (Dr. B.N. Ghosh professor of pharmacology. R.Gkar medical College Kolkata who died 1958. After Dr. B.N. Ghosh, Dr. B Mukerji Director Central Drug Research Institute Lucknow (CDRI) was appointed as chairman of the Indian Pharmacopoeia committee.)

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- **Second Edition of Indian Pharmacopoeia was published in 1966. Supplement to this edition was published in 1975.**
- (On 30 June 1978 the Indian Pharmacopoeia committee was reconstituted by the government of India Ministry Of Health and Family Welfare) under the Chairmanship Dr. Nityanand Director of Central Drug Research Institute Lucknow (CDRI).

- Third Edition of Indian Pharmacopoeia was published in 1985.
- This Pharmacopoeia include two Addendum with two Volumes.
- Addendum (Volume-1) to Indian Pharmacopoeia published in 1989. They contain legal notice prephase acknowledgement, Introduction, General notice and monographs from A to P.
- They contain 46 new monographs added and 126 amended.
- Addendum (Volume-2) was published in 1991 contain monographs from Q to Z and they contain 62 new monographs added and 110 amended.

- **Fourth edition of Indian Pharmacopoeia was published in 1996 under the chairmanship of Dr. Nityanand.**
- In Fourth edition addendum from veterinary product in 2002, 2005 and supplement volume -1 A to P, Volume-2 Q to Z.
- The veterinary supplement to Indian Pharmacopoeia 1996 contain 208 monographs.

- **Fifth Edition of Indian Pharmacopoeia was published in 2007 and addendum to this edition was published in 2008.**
- Fifth Edition Indian Pharmacopoeia is presented in three (3) Volume.
- Volume-1st contains general notices and general chapters.
- Volume-2nd contains general monographs on Drugs substances Dosage forms and Pharmaceutical Aids.

- **Sixth edition of Indian Pharmacopoeia was published in 2010.**
- The 6th edition of the Indian Pharmacopoeia 2010 is published by the Indian Pharmacopoeia Commission (IPC).
- The Indian Pharmacopoeia 2010 is presented in 3 volumes.
- Volume-1st contains the notices, Preface the structure of the IPC, Acknowledgements, Introduction and the general chapters.

- Volume-2nd contains the General notice, monographs on Dosage forms and monographs on Drug substances, dosage forms and Pharmaceutical Aids (A to M).
- Volume-3rd contains monographs on Drug substances, dosage forms and Pharmaceutical Aids (N to Z) followed by monographs on Vaccines and Immunoserum for human use.
- Herbs and Herbal products. Blood and blood related products biotechnology product and veterinary products.
- The seventh edition of the Indian Pharmacopoeia was published in 2014 by the Indian Pharmacopoeia commission (IPC) on behalf of the Government of India Ministry of Health And Family Welfare.
- The Indian Pharmacopoeia 2014 is presented in four Volumes.
- The Indian Pharmacopoeia 2014 incorporates 2550 monographs of drugs out of which 577 are new monographs consisting of APIs, Excipients, Dosage forms and herbal products etc.
- The Eighth edition of Indian Pharmacopoeia was published in 2018 by the IPC on behalf of the Ministry of Health and Family Welfare, Government of India.

Indian Pharmacopoeia 2018 salient features-

- Incorporating with 4 volume.
- 220 New monographs
- 170 New chemical monographs
- 49 API
- 64 Formulation
- 53 Fixed dose formulations
- 02 Excipients
- 02 Antibiotics
- 15 New herbs and Herbal products monographs
- 03 New Radiopharmaceutical monographs.
- 14 New veterinary Non-biological monographs.
- 18 New Biological monographs
- 02 Vaccines and Immunoserum for human use
- 06 Biotechnology derived therapeutic products.
- 10 Blood and Blood related products.

Salient features of Indian pharmacopoeia

- ❖ I.P is published in continuing pursuit of the mission of I.P.C to improve the health of the people through ensuring the quality, safety and efficacy of

- ❖ I.P contains procedures for analysis and specifications for the determination of quality of pharmaceutical substances, excipients, and dosage form.
- ❖ General chapter on volumetric glassware, conductivity, dissolution test, disintegration test, dimensions of hard gelatin capsule shell etc. have been revised.
- ❖ I.P has been extended to include products of biotechnology indigenous herbs and herbals products, veterinary vaccines and additional antiretroviral drugs and formulations, inclusive of commonly used fixed dose combinations (FDC).
- ❖ I.P contains the 170 chemical monographs, 15 herbal monographs, 10 blood and blood related products monographs, 6 biotechnology monographs, 3 pharmaceuticals monographs, 2 vaccines and immune-sera monographs, 14 veterinary and non biological products monographs.
- ❖ I.P monograph for an official substances or preparation includes the articles definition, description, identification, packaging, storage, specifications, impurities, assay and specific tests, one or more analytical procedures for each test, acceptance criteria, other requirement etc.
- ❖ General chemical tests and TLC for identification of an article have been almost eliminated and more specific infrared, ultraviolet spectrophotometer and HPLC tests have given emphasis.
- ❖ The uses of chromatographic methods have been greatly extended to cope with the need for more specificity in assays and in particular, in assessing the nature and extent of impurities in ingredients and products.

For controlling the microbial quality of all the medicinal products- Maintenance, preservation, identification, disposal of microorganism have been revised and pyrogen tests have replaced by Bacterial Endotoxin Test (BET) in parenteral preparation.

British Pharmacopoeia (BP)

Introduction to British Pharmacopoeia:

British Pharmacopoeia was published by the Health ministry of the United

Kingdom. It is also known as National Pharmacopoeia of the United Kingdom.

British Pharmacopoeia

Headquarters : London, United Kingdom

Edition	Year	Addendum / Supplement	Chairmanship	Volume
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1 st	1955	1960	D. B.N. Ghose	One
2 nd	1966	1975	Dr. B. Mukherjee	One
3 rd	1985	1989/1991	Dr. Nityanand	Two
4 th	1996	2000/2002/2005	Dr. Nityanand	Two
5 th	2007	2008	Dr. Nityanand	Three
6 th	2010	2012	Shri K.Chandramouli	Three
7 th	2014	2015/2016	Nabi Azad (Health Minister)	Four
8 th	2018	2019/2021	Dr. C.K. Mishra	Four

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LESSON – 4

United States Pharmacopoeia

Type : Nonprofit

Founded : 1820; 201 years ago

Headquarters : North Bethesda,
Maryland, United States

Key people : Ronald T. Piervincenzi
(CEO)[1] Website : www.usp.org

United States Pharmacopeia-National Formulary

The United States Pharmacopeia-National Formulary (*USP-NF*) is a book of pharmacopeial standards. It contains standards for medicines, dosage forms, substances, excipients, medical devices, and dietary supplements.

