

**Department of Pharmacy GP  
(Uttawar)**



**Powder**

**(Pharmaceutics II)  
Unit 2**

# CONTENT'S

- INTRODUCTION
- DEFINITION
- CLASSIFICATION OF POWDER
- USE AND PACKAGING OF POWDER
- PACKAGING AND LABELLING OF POWDER
- ADVANTAGE OF POWDER
- DISADVANTAGE OF POWDER
- POWDER FOR EXTERNAL USE
- CONCLUSION

# INTRODUCTION

- Powder are the simplest dosage forms and the basis of many other solid dosage forms such as TABLET,CAPSULE,etc.



- Powder were originally designed as a convenient mode of administering hard vegetable drugs such as roots, bark and woods.

# DEFINITION

Powders are intimate mixtures of dry, finely divided drugs and or chemical that may be intended for internal or external use (e.g. external applications to the skin).



# CLASSIFICATION OF POWDERS

- ❖ Bulk powder for external use.
- ❖ Bulk powders for internal use.
- ❖ Simple and compound powders for internal use
- ❖ Powders enclosed in catchets and capsules
- ❖ Compressed powders (tablets)

# Bulk powders for external use

## **1.DUSTING POWDERS:**

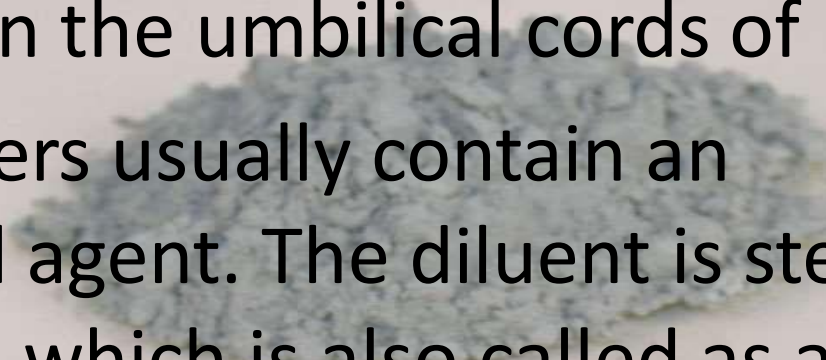
They are meant for external application to the skin generally applied in a very fine state of subdivision to avoid local irritation.

### **THEY ARE OF TWO TYPES:**

#### **(A)MEDICAL:**

They are used for superficial skin conditions they should not be used for application to open wounds or broken skin. The label should clearly specify this point. We need not sterilise the ingredients of these powders but we must be sure that they are not containing pathogens.

## **(B)SURGICAL**

- These powders must be sterile because they are used in body cavities and are applied on wounds. They are sprayed on burnt areas and are placed on the umbilical cords of infants.
  - These powders usually contain an antibacterial agent. The diluent is sterilizable maize starch, which is also called as absorbable dusting powder.
- 

# FUNCTION

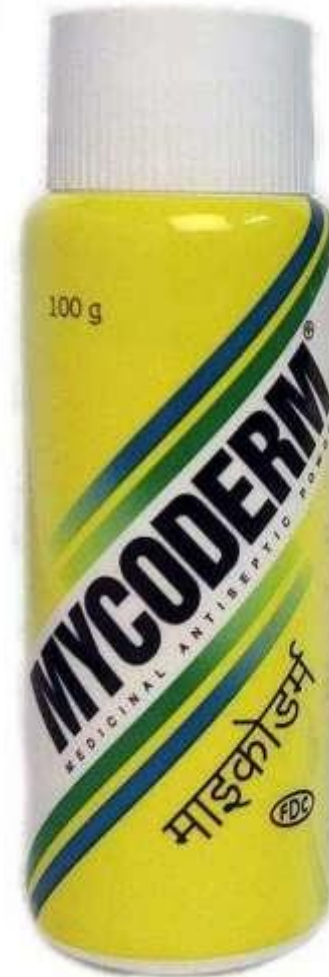
Lubricants

Protective

Adsorbents

Antiseptic

Astringents





# 2.SNUFFS



## DEFINITION

These are finely divided solid dosage forms of medicaments inhaled into nostrils.

## FUNCTION

Decongestion, Antiseptic, Bronchodilator.

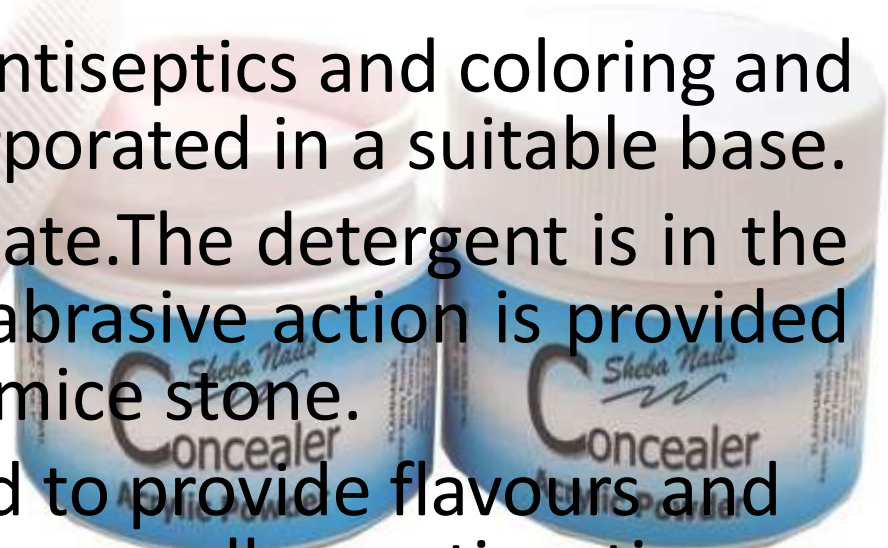
## PACKAGING

Dispensed in flat metal boxes with hinged lid.

# 3. DENTAL POWDERS



- Dental powder are applied with the help of a tooth brush for cleaning the surface of the teeth.
- Dental powder contain detergents, abrasives, antiseptics and coloring and flavouring agents incorporated in a suitable base.
- Base is calcium carbonate. The detergent is in the form of soap and the abrasive action is provided by finely powdered pumice stone. Essential oils are added to provide flavours and freshness to the mouth as well as antiseptic action.



# 4-Insufflations

- Insufflation are the medicated dusting powder introduced into body cavities such as ears,nose, throat and vagina with the help of a device called an insufflator.
- It sprays the powder into a stream of finely divided particles all over the site of application.




# USE AND PACKAGING OF POWDERS

DEPENDING ON THEIR INTENDED USE, POWDERS ARE PACKAGE AND DISPENCED AS-

1. BULK POWDERS
2. DIVIDED POWDER

## 1. BULK POWDERS.

They are dispenced in bulk containers. A perforated or siften, can is used for external dusting, and an aerosol container is used for sparying onto skin.



# CONTI..

A wide mouth-mouthed glass jar permits easy removal of a spoonful of powder.

Ex-of bulk powders are as follow

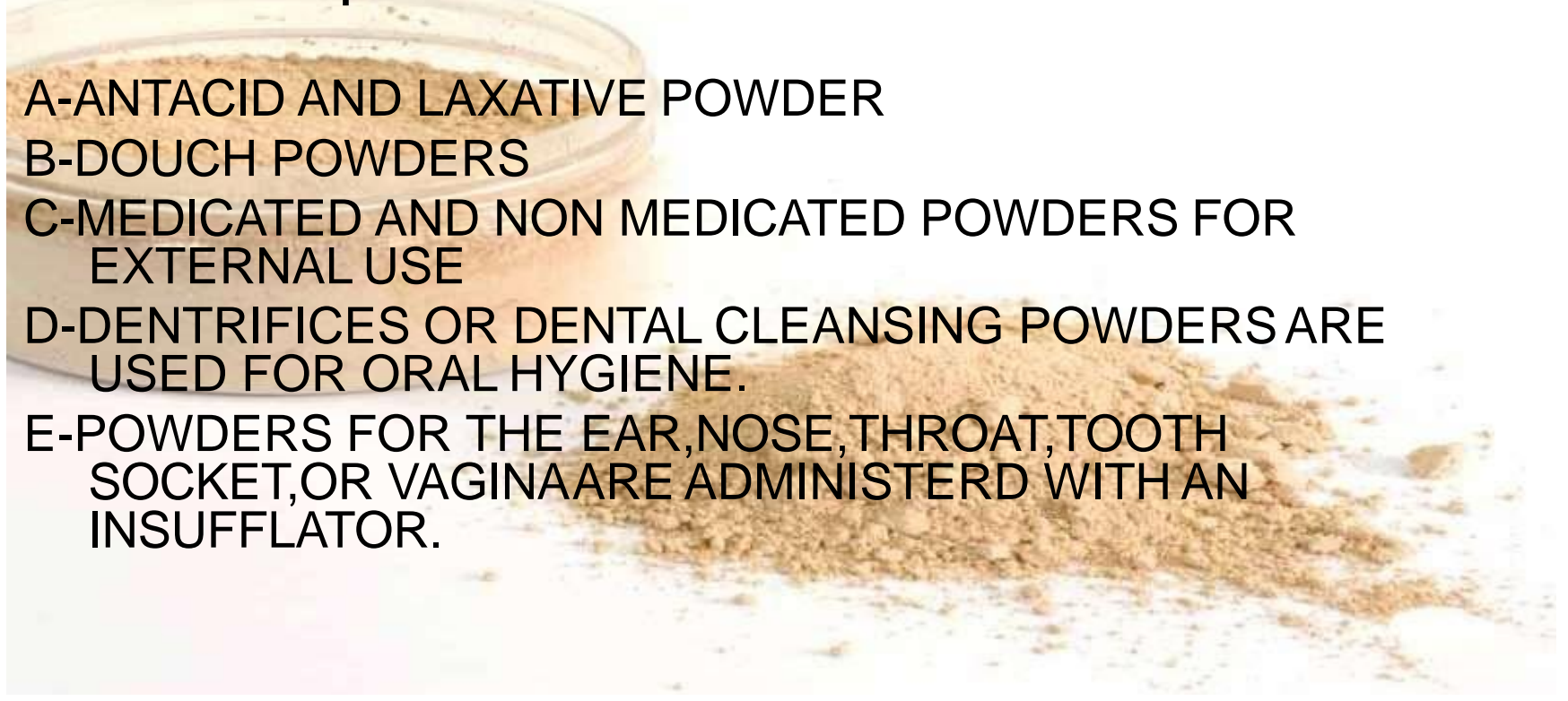
A-ANTACID AND LAXATIVE POWDER

B-DOUCH POWDERS

C-MEDICATED AND NON MEDICATED POWDERS FOR EXTERNAL USE

D-DENTRIFICES OR DENTAL CLEANSING POWDERS ARE USED FOR ORAL HYGIENE.

E-POWDERS FOR THE EAR,NOSE,THROAT,TOOTH SOCKET,OR VAGINAARE ADMINISTERD WITH AN INSUFFLATOR.



# CONTI..

## B-DIVIDED POWDERS

- These are dispensed in individual doses, usually in folded papers
- They may also be dispensed in metal foil, small heat-sealed or resealable plastic bags or other containers



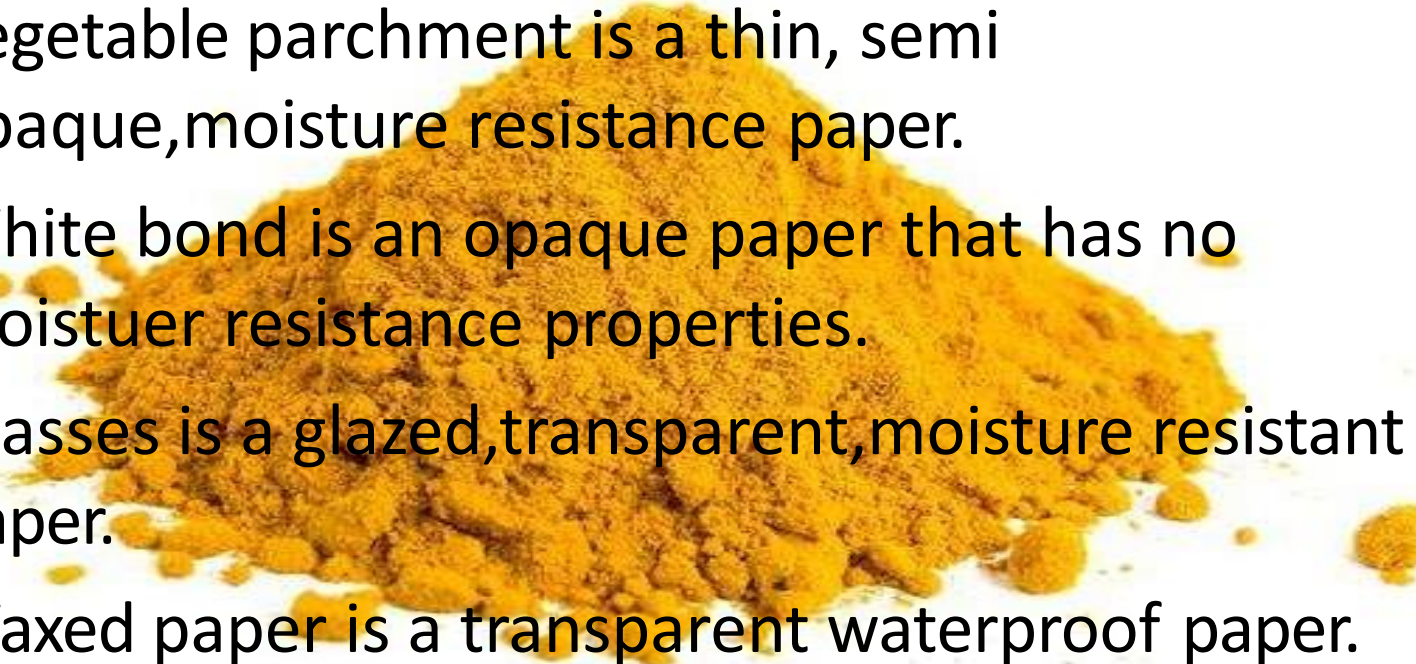
# PACKAGING AND LABELLING OF POWDERS

- Hygroscopic, deliquescent or volatile powders-packed in glass jars rather than pasteboard containers.
- Amber or green glass for light-sensitive components.
- Should be stored in tightly closed containers.
- Product for external use must indicate “For External use only” on the label.



# **PAPERS USED TO PACK** **INDIVIDUAL POWDER**

## **FOUR BASIC TYPES ARE USED:**

- (A) Vegetable parchment is a thin, semi opaque, moisture resistance paper.
  - (B) White bond is an opaque paper that has no moisture resistance properties.
  - (C) Glassine is a glazed, transparent, moisture resistant paper.
  - (D) Waxed paper is a transparent waterproof paper.
- 

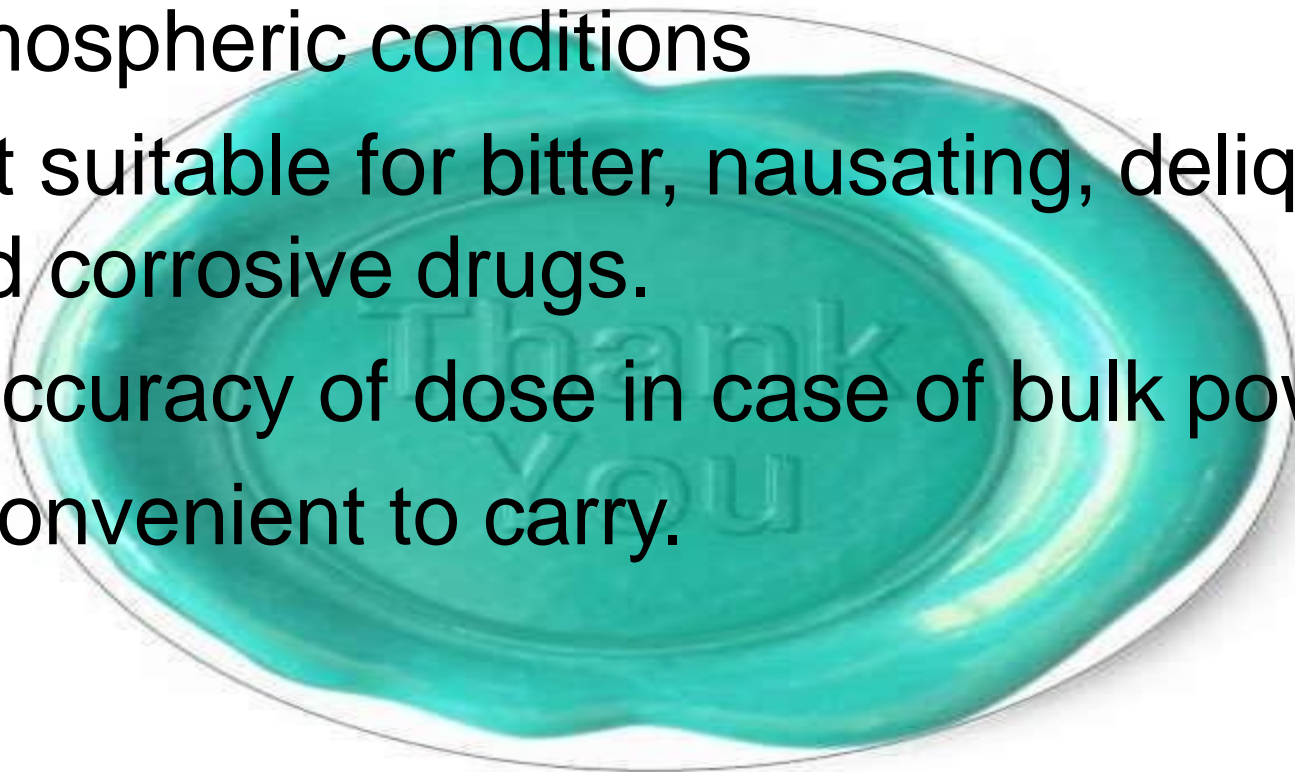


# ADVANTAGE

- Good chemical stability compared with fluids
- Useful for bulky drugs with large dose, e.g. indigestion powder.
- Easy to swallow even in large bulk, especially if mixed with drink food (useful for stomach-tube feeding)
- The smaller particle size of powders causes more rapid dissolution in body fluids, increases drug bioavailability, and decreases gastric irritation compared with tablets.

# DISADVANTAGE

- Not suitable for drugs unstable in atmospheric conditions
- Not suitable for bitter, nauseating, deliquescent and corrosive drugs.
- Inaccuracy of dose in case of bulk powder
- Inconvenient to carry.



# CONCLUSION

- Powder dosage forms are versatile flexible in dosage strength relatively stable and also convenient to manufacture, store ,handle and use.
- It is possible to reduce them to desired particle size and thus facilitate rapid absorption. Thus from biopharmaceutical consideration powder are convenient and useful for prescribing drugs.



**Thanking  
you**