

Industrial Pharmacy/Fifth Stage

Lecture:1

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Oral Solid Dosage Forms(Tablets)

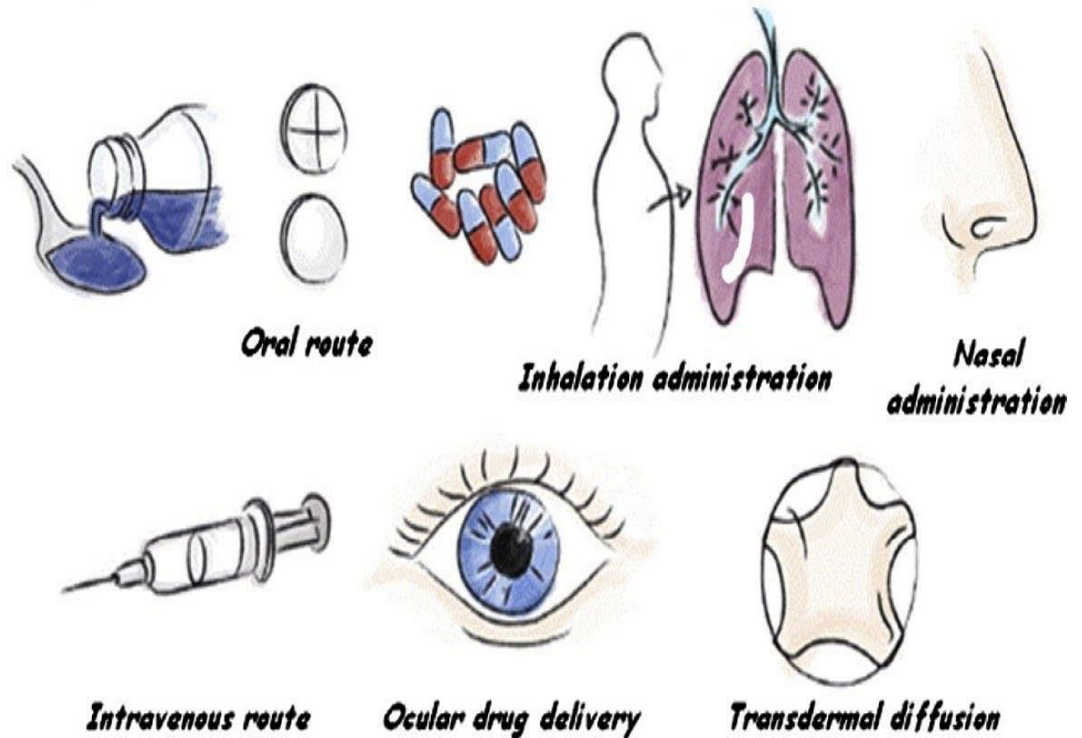


Introductory Concepts

Among different routes of administration, the **oral route** is considered the most common way.

Tablets is the most popular oral dosage form

Routes of Drug Administration



Introductory Concepts

- The term tablet derived from the Latin word (**tabuleta**) which is related to the appearance of the dosage form (**small disc like**)
- In **1843** the first patent for a **hand –operated device** used to form a tablet was granted.
- After that , the use of tablets as a dosage form increased gradually at **small scale level**.

Definition

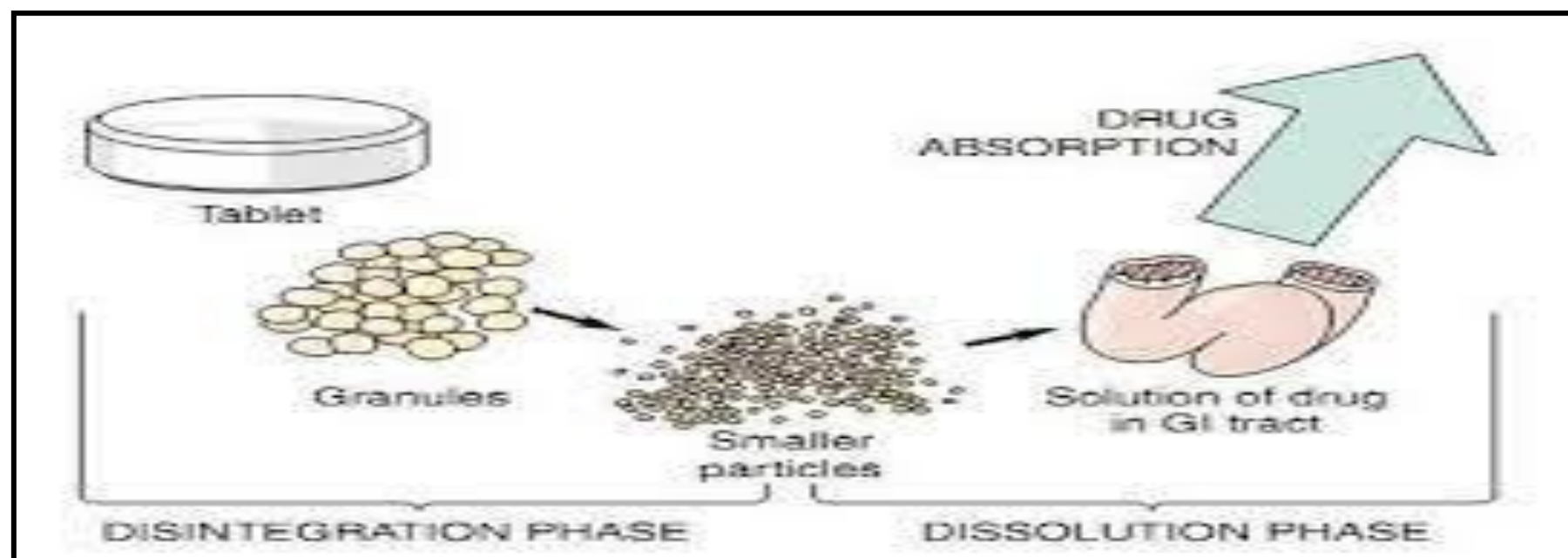
- Tablets defined as, **solid preparations** each containing **single dose** of one or more active ingredients and usually obtained by **compressing** uniform volume of particles.
- Tablets usually prepared with the aid of suitable **pharmaceutical excipients**.
- It vary in size , shape, weight , hardness, thickness, disintegration ,and dissolution depending on its **intended use and manufacturing method**

Definition

- Most tablets are used in the oral administration, swallowed whole, or after being chewed, some are dissolved before **administration**, or retained in mouth
- Tablets such as those administered sublingually, buccally, or vaginally, are prepared to have features most **applicable to their particular route of administration.**

Definition

- Tablets are used mainly to induce **systemic effect**, but sometimes for **local drug action** in the mouth or GIT, or to increase the pH of stomach temporarily.
- For systemic use, the drug must be **released** from the tablet , dissolved in the fluid of the mouth ,stomach or intestine and absorbed by systemic circulation .

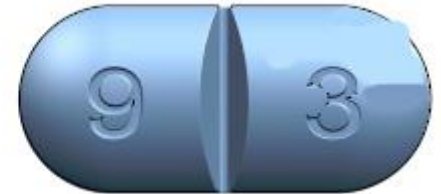




- Tablets are **unit dosage** form of great accuracy with least content variability
- The cost of production is **very low**.
- Easiest and cheapest dosage form to **package and ship**.
- **Portable dosage** form due its light weight
- Tablets are of **high stability**(physical ,chemical and microbiological) compared with other dosage forms

ADVANTAGES

- Product identification is easy when the tablet is colored ,scored ,or embossed



- Different release profile can be obtained with tablets

Disadvantages



- Some drugs **resist compression** into dense compacts due to its amorphous nature or low density.
- Drugs with **poor wetting , slow dissolution properties, intermediate to large dose, with window absorption**, or any combination of these features may complicate formation of tablets.

Disadvantages



- Drugs with bitter taste, objectionable odor, or those sensitive to oxygen or atmospheric moisture may require encapsulation before compression or may require coating which impose additional cost, in such cases capsules is considered better alternative.



**Thanks for
Listening**