

Outlines

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TYPES OF DOSAGE FORMS

Types of dosage forms:

- **Definition:**

- Dosage forms are the means by which drug molecules are delivered to sites of action within the body.

The need for dosage forms:

1. Giving an accurate dose.
2. Protection:
 - Protect drug form environment; (such as protection form gastric juice) by e.g. coated tablets, sealed ampules.
3. Masking taste and odor.
4. targeting of drug:→Placement of drugs within body tissues.
5. Sustained and controlled release medication.
6. Optimal drug action and increase drug bioavailability such as Using of desired vehicle for insoluble drugs.

Dosage forms are classified according to:

1. Route of administration

- Oral
- Topical
- Rectal
- Parenteral
- Vaginal
- Inhaled
- Ophthalmic
- Otic

2. Physical form

- Solid
- Semi solid
- Liquid

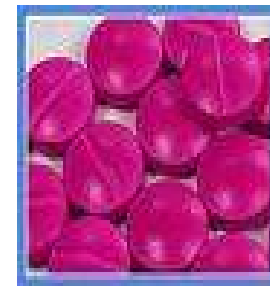
Oral dosage forms:



- Tablet: is a hard, compressed medication in round, oval or square shape.
- Contains active ingredients and additives
- The excipients include:
 - Binders, hold the constituents together and increase hardness of tablet to resist mechanical stress during subsequent process like coating or blistering...etc.1
 - glidants (flow aids)
 - and lubricants .
 - Disintegrants to ensure that the tablet breaks up in the digestive tract.
 - Sweeteners or flavours to mask the taste of bad-tasting active ingredients.
 - Pigments to make uncoated tablets visually attractive.

1-Tablet (Cont.)

- A coating may be applied to plain tablet in order to: 1- hide the taste of the tablet's components.
 1. make the tablet smoother and easier to swallow .
 2. make it more resistant to the environment.
 3. Extending its shelf life.
 4. Reduce local side effects of active ingredient(s)
- H. W give an example for each advantage:



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2-Buccal and sublingual tablet:



- Sublingual and buccal medications are administered by placing them in the mouth, either under the tongue (sublingual) or between the gum and the cheek (buccal).
- Examples of drugs administered by this route: e.g. vasodilators, steroidal hormones.
- Give names H.W
- Advantage:
 1. Rapid onset of action:
 - The medications dissolve rapidly and are absorbed through the mucous membranes of the mouth, where they enter into the bloodstream.
 2. Increase B.A. :Avoid the acid and enzymatic environment of the stomach and the drug metabolizing enzymes of the liver.

3-Effervescent tablet:



- Effervescent tablets are uncoated tablets that generally contain acid substances (citric and tartaric acids) and carbonates or bicarbonates and which react rapidly in the presence of water by releasing carbon dioxide.
- They are intended to be dissolved or dispersed in water before use providing:
 - A Very rapid tablet dispersion and dissolution. Rapid onset of action
 - B- pleasant tasting carbonated drink.

4- Chewable tablet:



- They are tablets that chewed prior to swallowing.
- They are designed for administration to children e.g. vitamin products.
- Antacid medications are given as chewable tablet ? Why?

5- Capsule:

Hard gelatin capsule



Soft gelatin capsule



- A capsule is a medication in a gelatin container.
- Advantage: mask the unpleasant taste of its contents.
- The two main types of capsules are:
 - 1- hard-shelled capsules, which are normally used for dry, powdered ingredients,
 - 2- soft-shelled capsules, primarily used for oils and for active ingredients that are dissolved or suspended in oil.

6- Lozenge:



- -It is a solid preparation consisting of *sugar* and *gum*, the latter giving strength and cohesiveness to the lozenge and facilitating slow release of the medicament.
- It is used to medicate the mouth and throat for the slow administration of indigestion or cough remedies.



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