Overview of
Solid dosage forms:
powders, granules, tablets, capsules

Pharmaceutical Propaedeutics

Institute of Pharmaceutical Technology and Biopharmacy

Patient's compliance

The most important elements of physician-patient's cooperation:

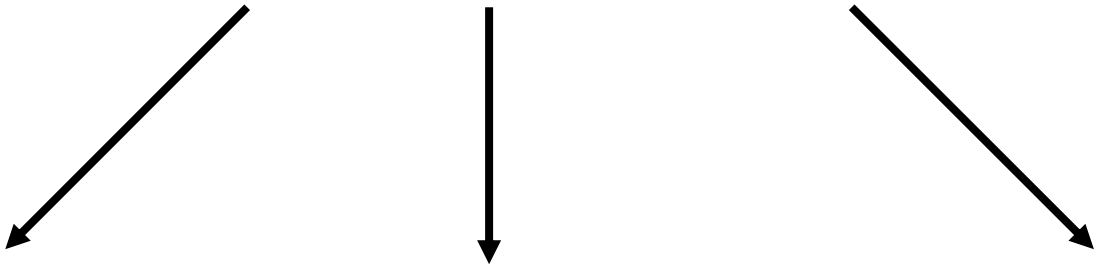
The patient should take

- the intended medication
- at the proper time
- in its sufficient amount.

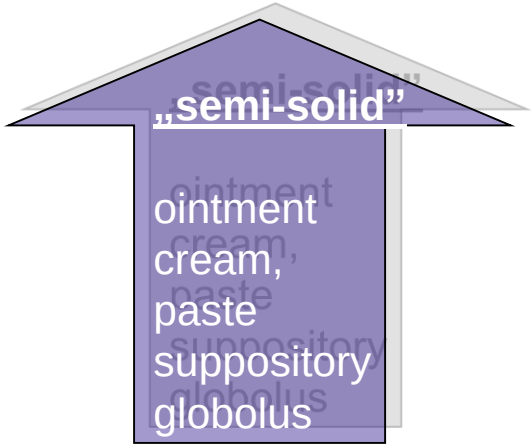
Medication = API(s) and excipients in the properly wrapped dosage form + information

The ready-to-use form of the medication is called dosage form (this is the physical appearance of the medication), what the patient can use safly.

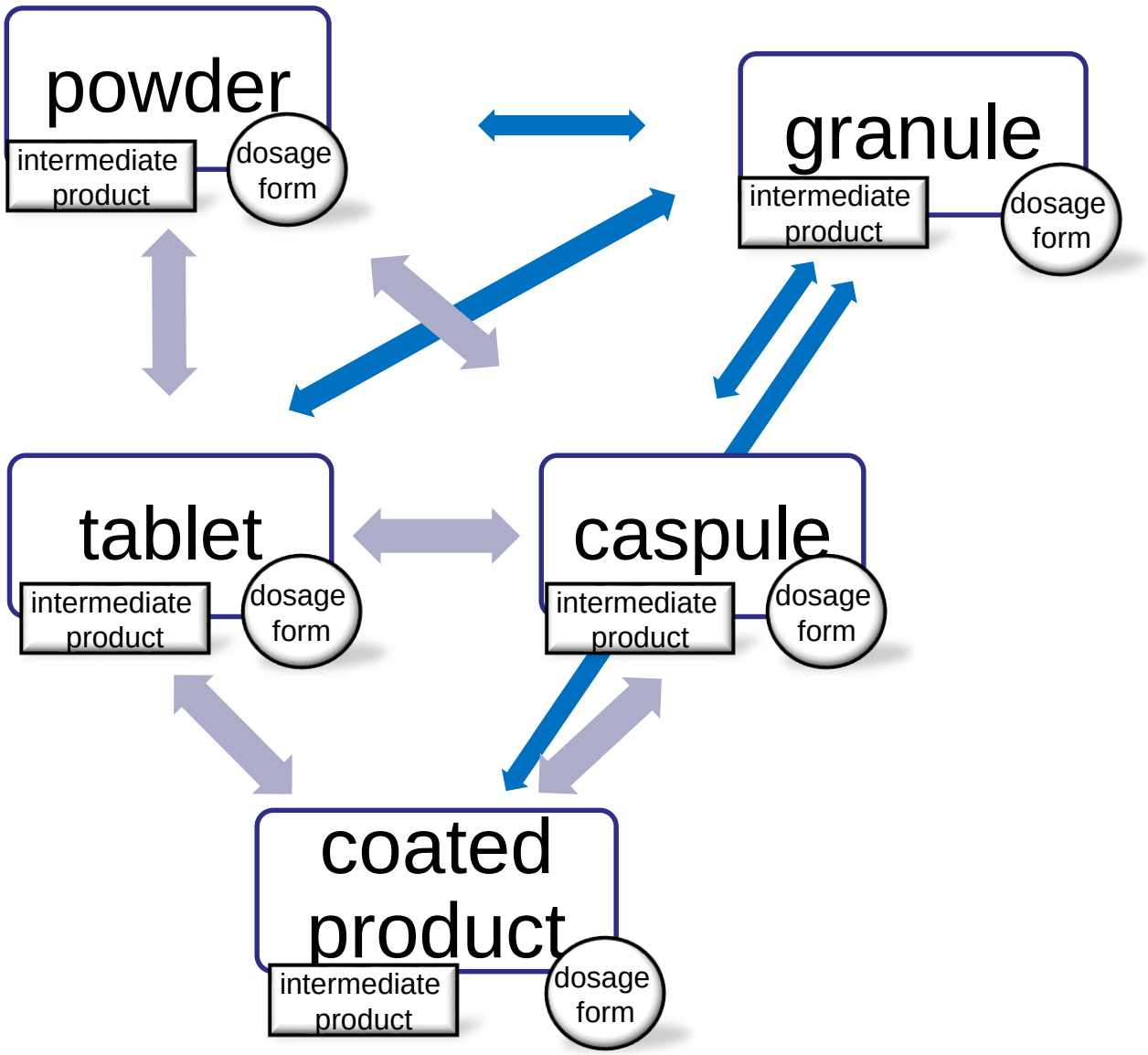
The disperse medium can be



Gas G	Fluid F	Solid S
anesthetic g ases (molecular dispersions) F / G fog S / G smoke aerosols	solutions (molecular and colloidal dispersions) emulsions suspensions	Granules Tablets Pellets



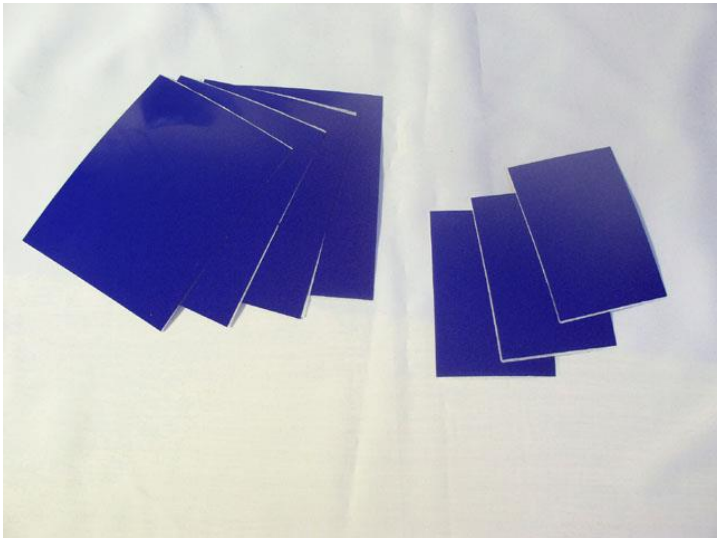
dosage form vs. intermediate product



Categories of powders

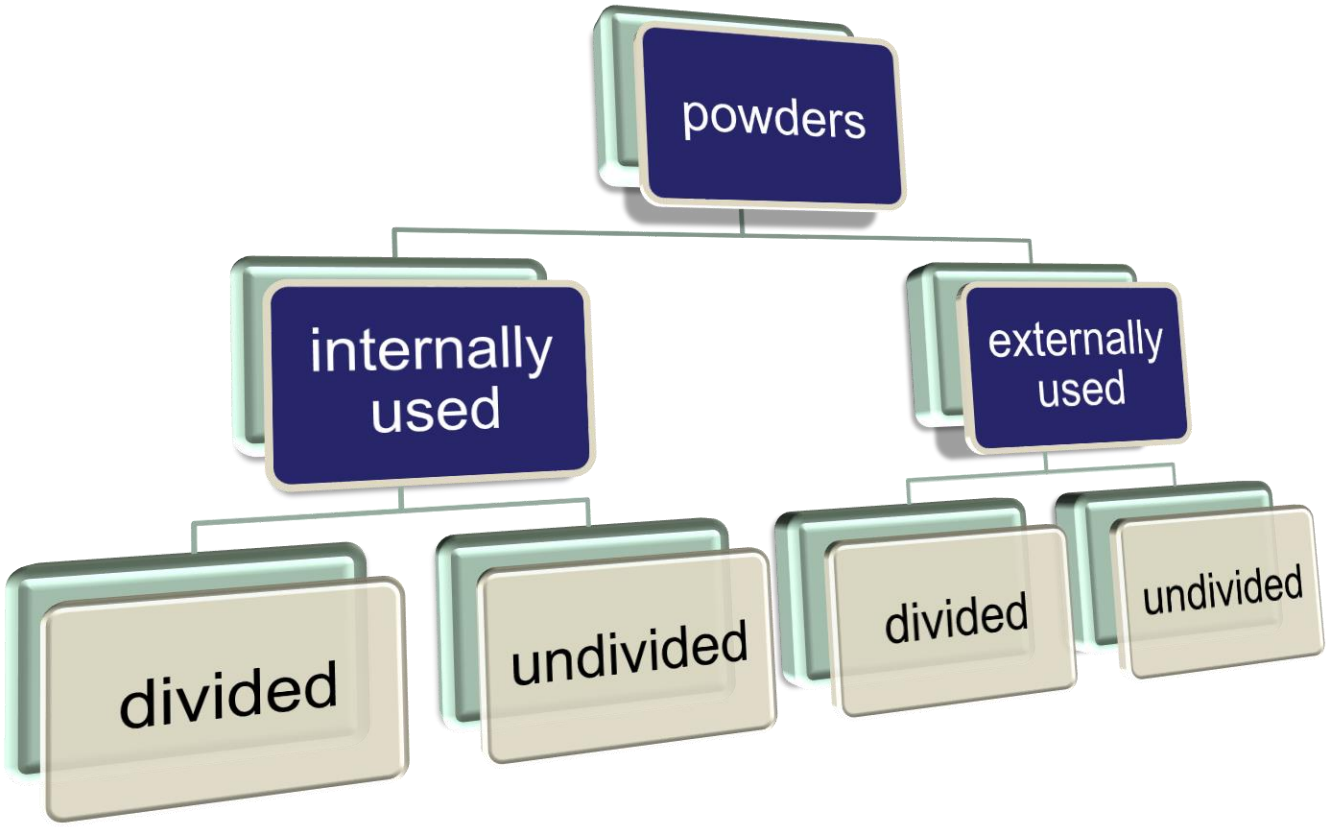
Tools of powders:

- Mortars
- Pestles
- Cards
- Sieves

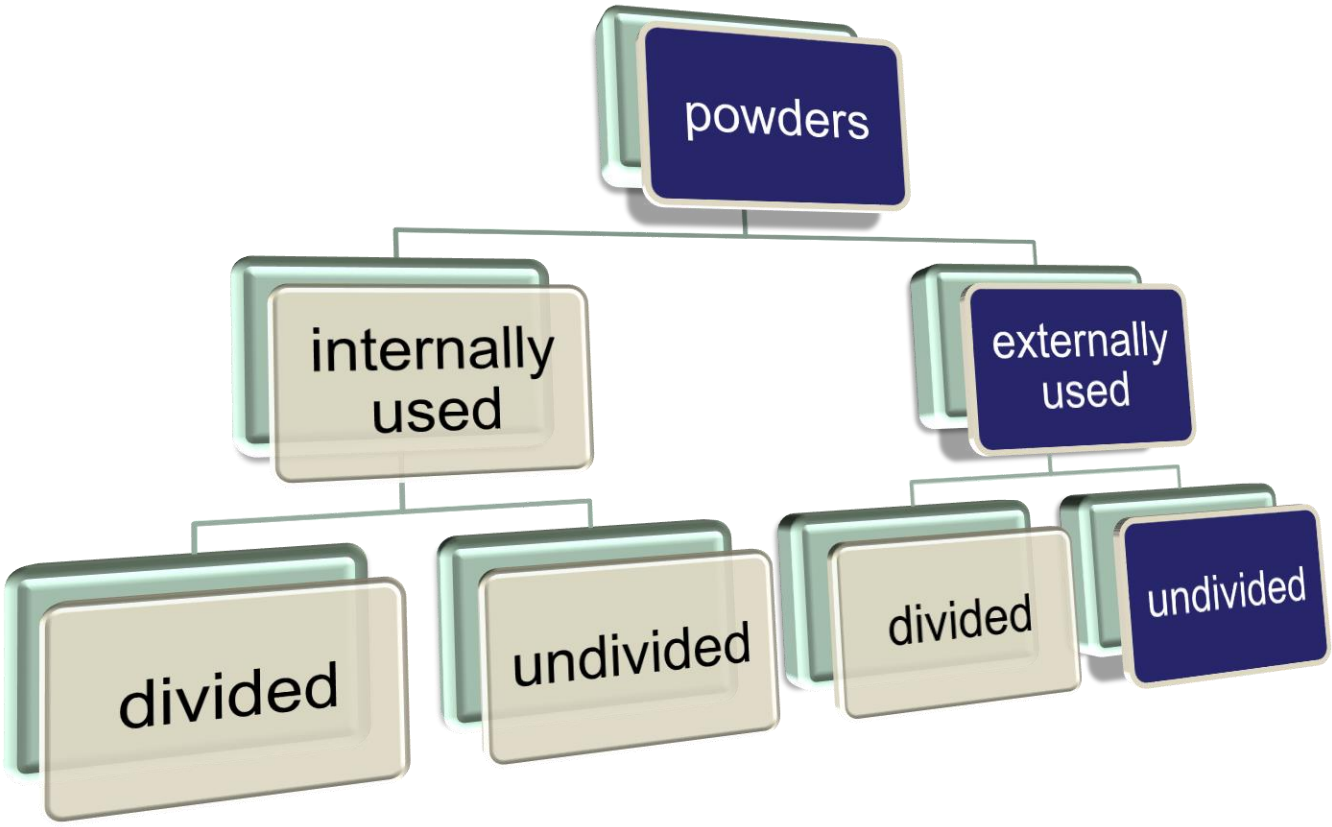


Sieves

Categories of powders



Categories of powders

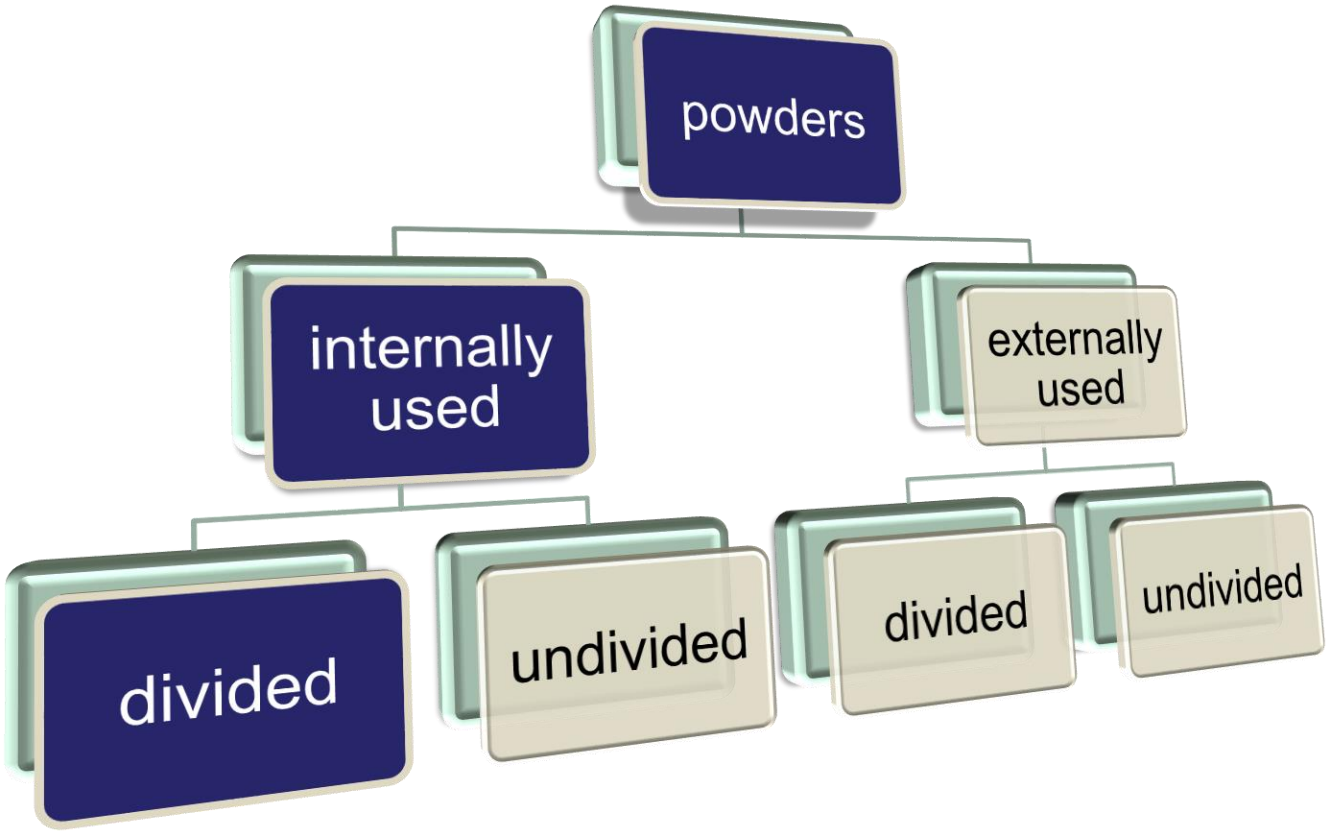


Talc powders

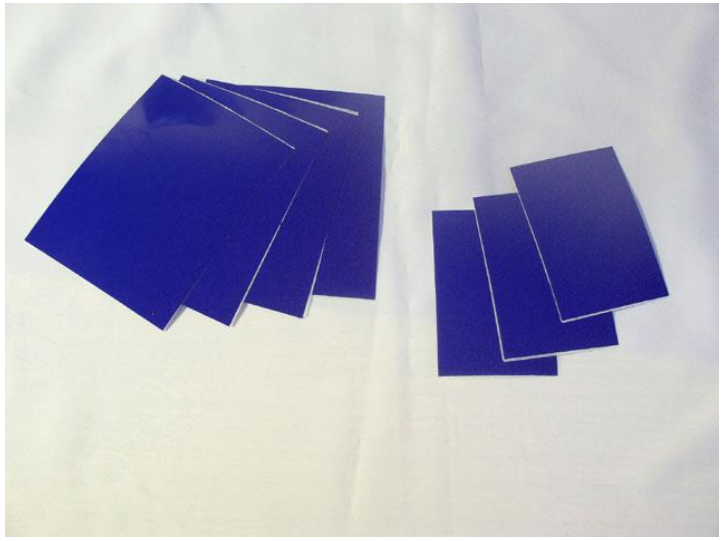
<u>Pulveres ad usum dermicum</u>
intended for the treatment of skin

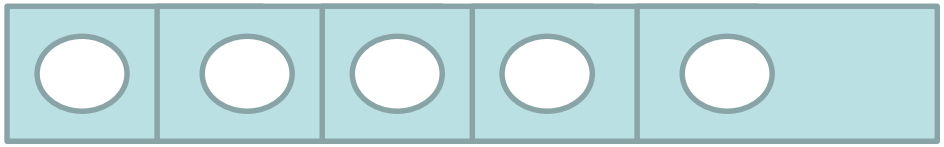
- one dose or multidose preparations
- huge surface
- don’t contain rough particles
- wound preparations have to be sterile
- expediated in spreader

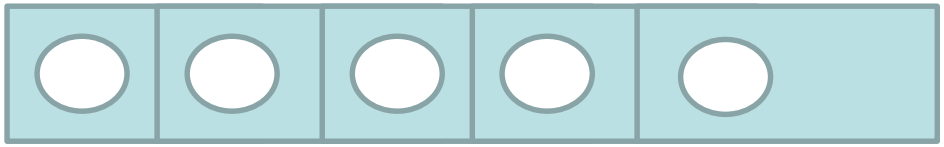
Categories of powders

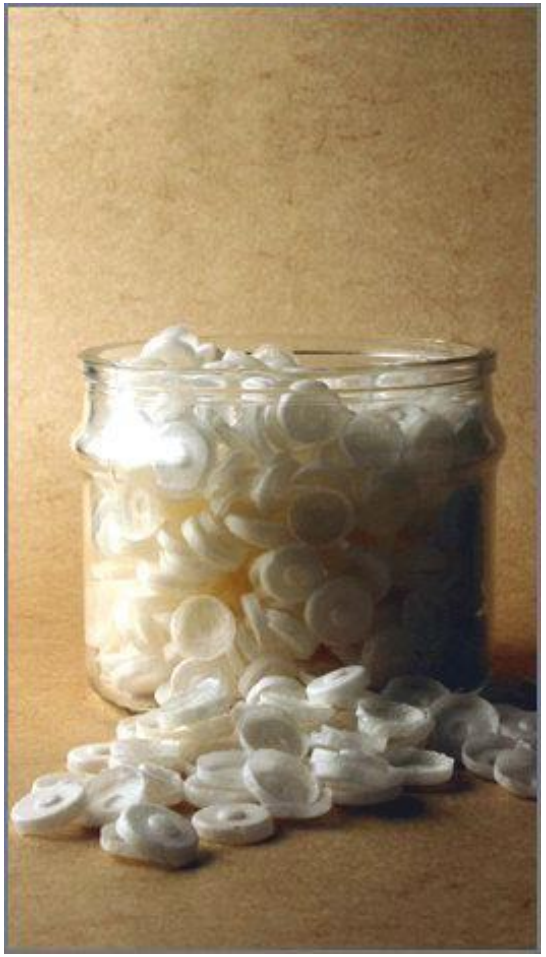


Division of powders

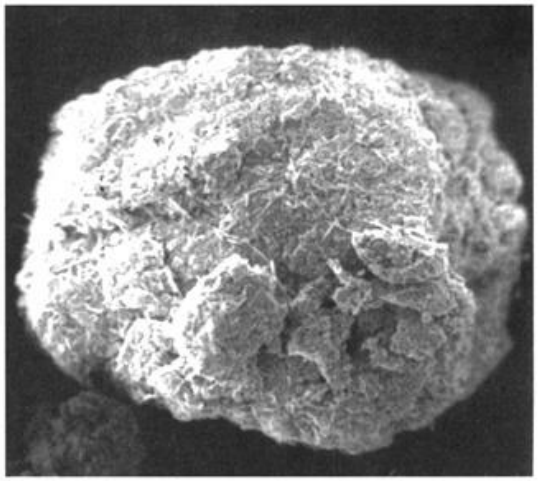


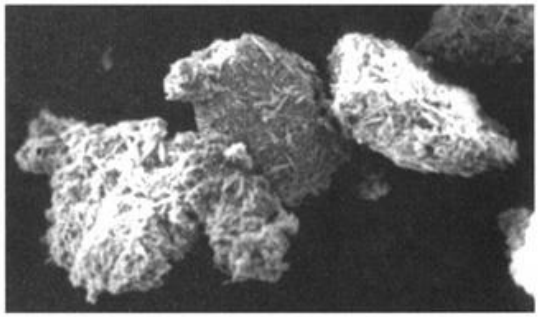






Granules





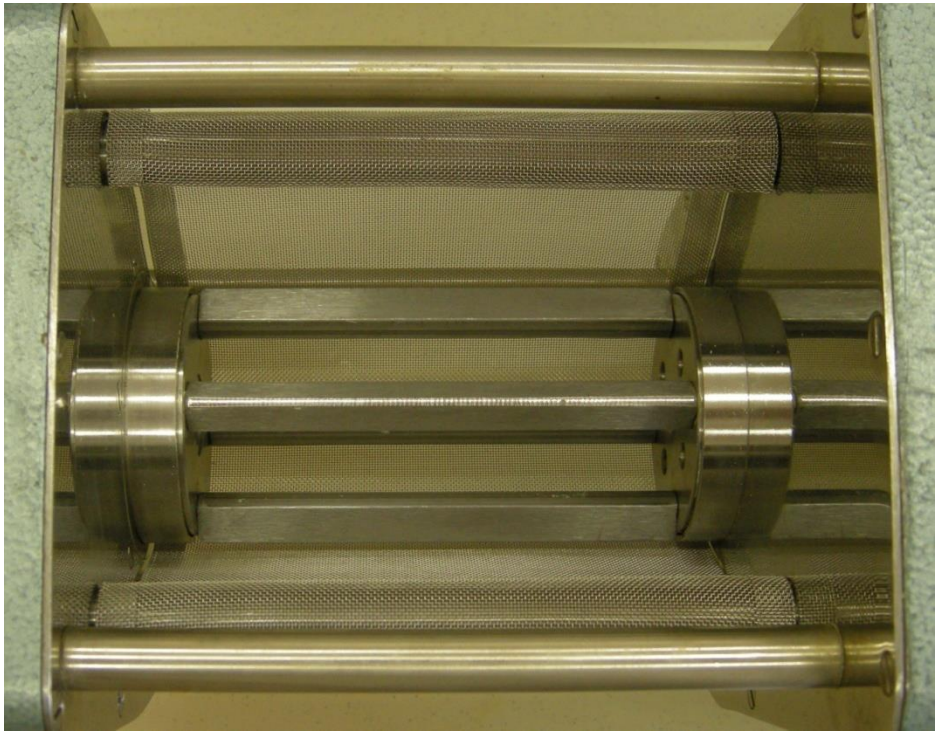
Small particles that can be formed by disintegration or by integration routes through which the powder forms aggregates.

Granulation is the process of **collecting particles together by creating bonds between them.**

Granulation

Manual granulation

Granulation



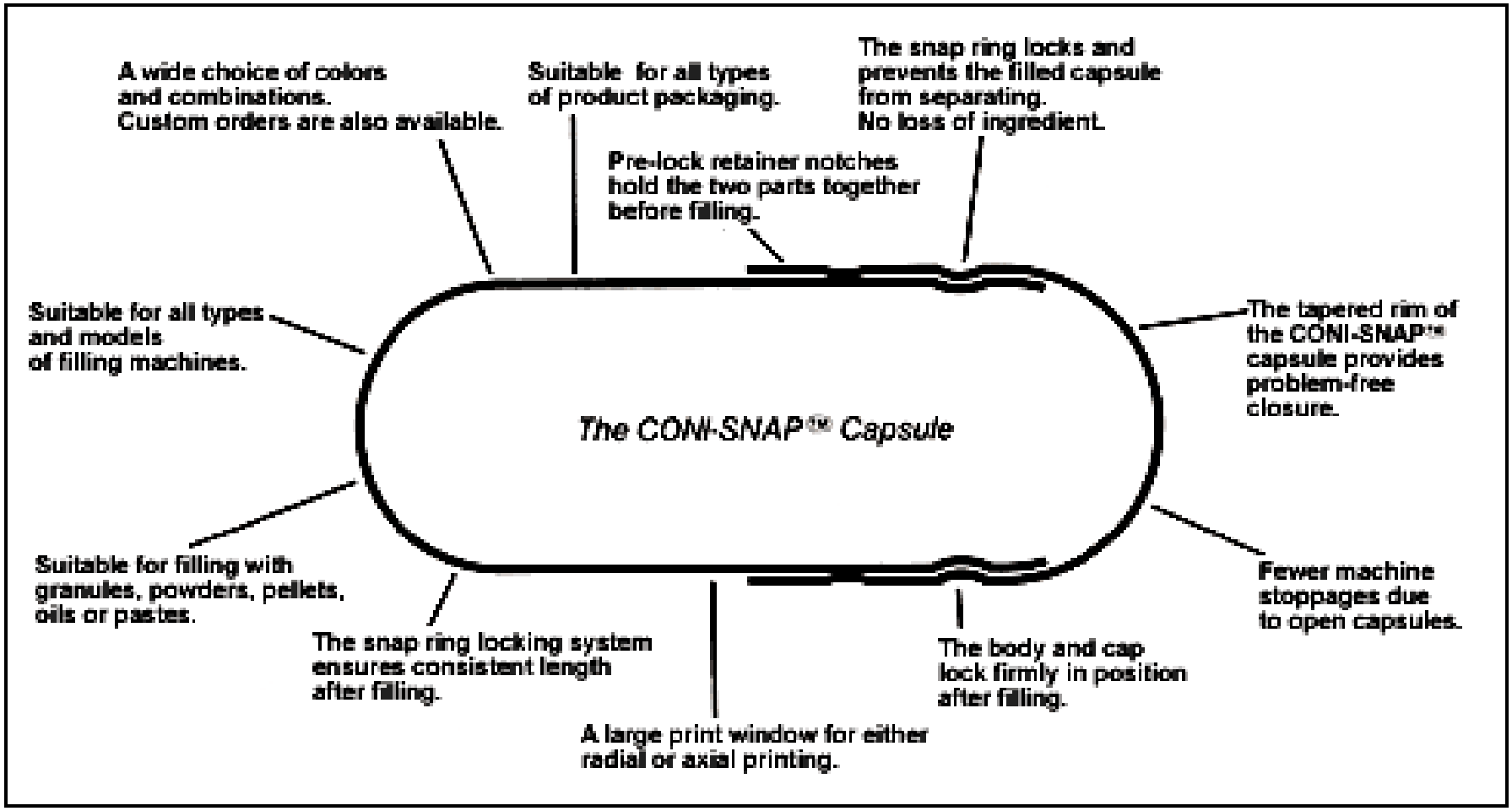
OSCILLATING GRANULATOR

Capsules

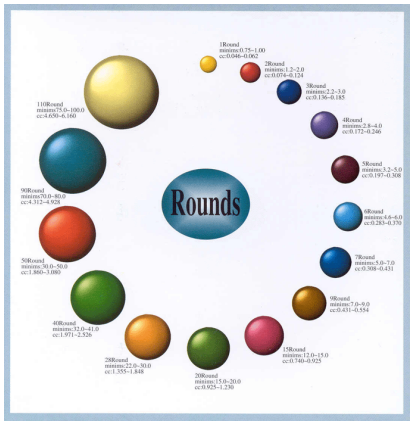
Hard gelatin capsule shells can be used at a pharmacy too.

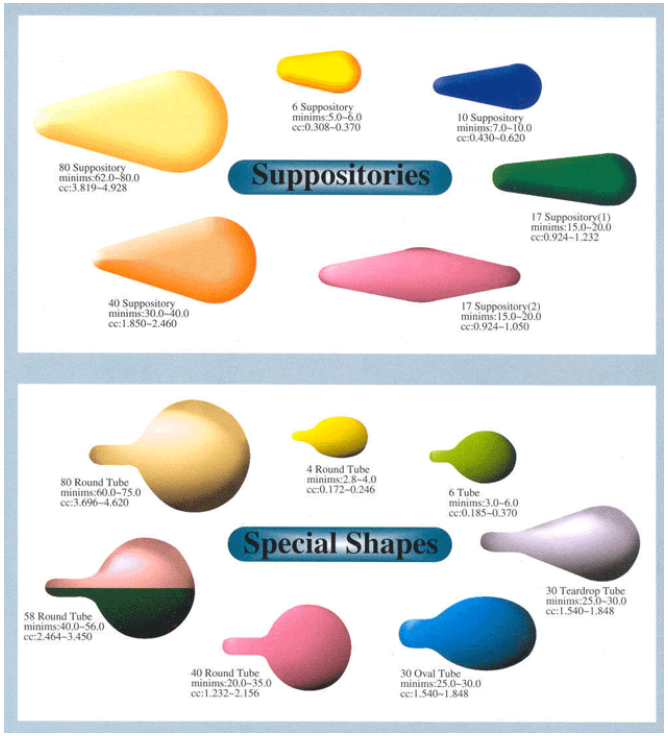
They have to be transparant.

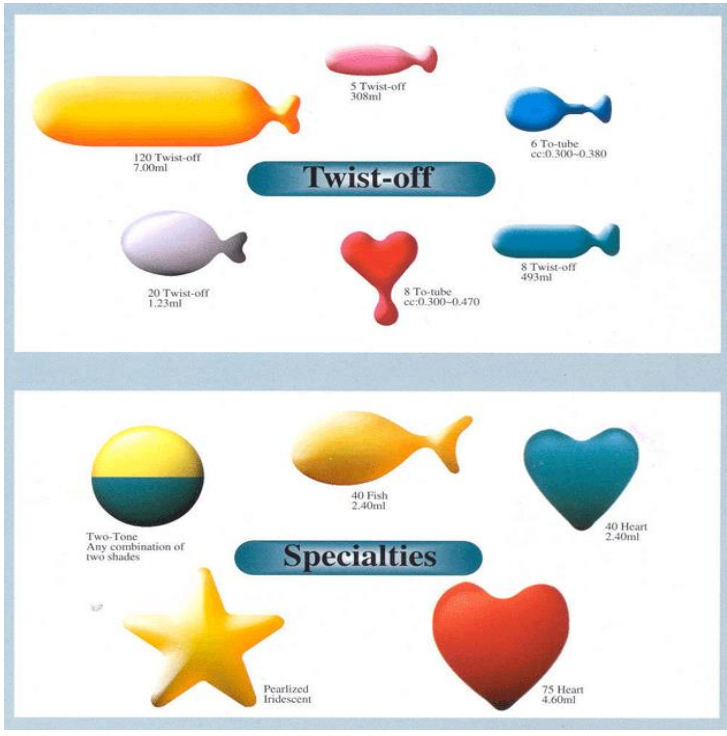
Hard gelatin capsule



Soft gelatin capsule

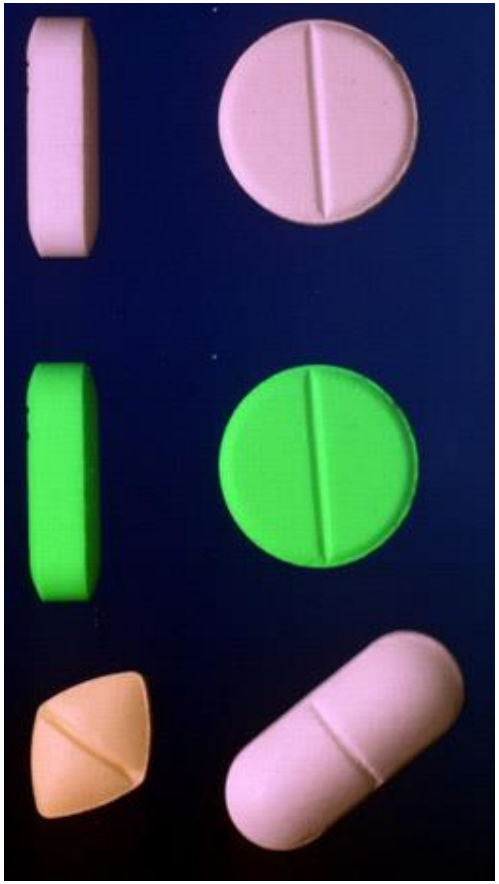






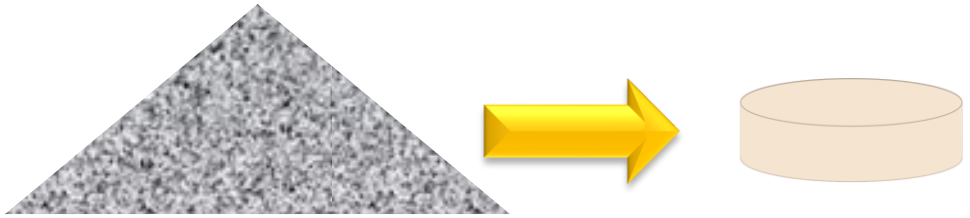
Tablets

Tablets are manufactured by compression.
They have different shape and color.

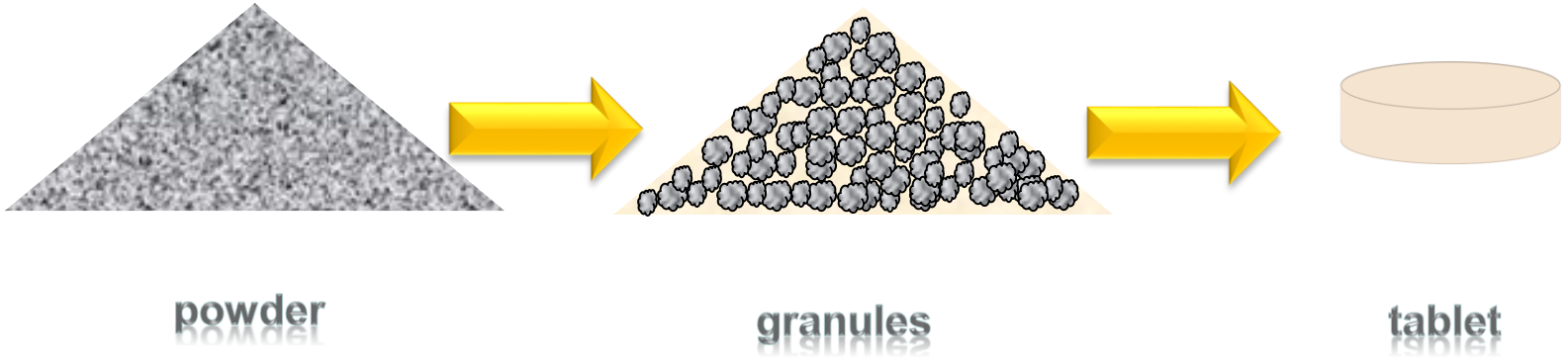


Tablets

- Direct compression

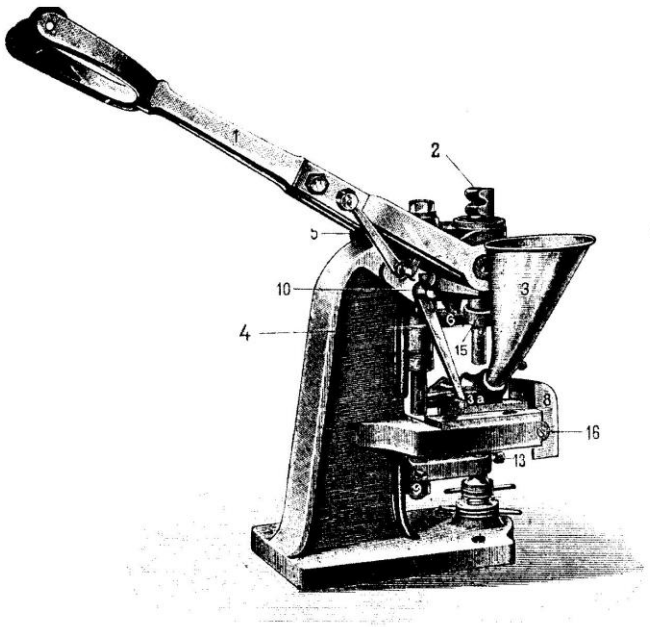


- Wet or dry granulation tabletting



Tablets

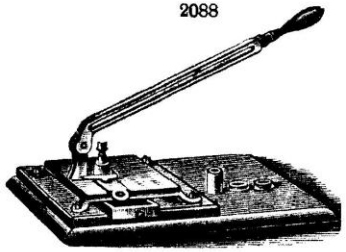
Hand tabletting machines- pharmacy



2084

2080

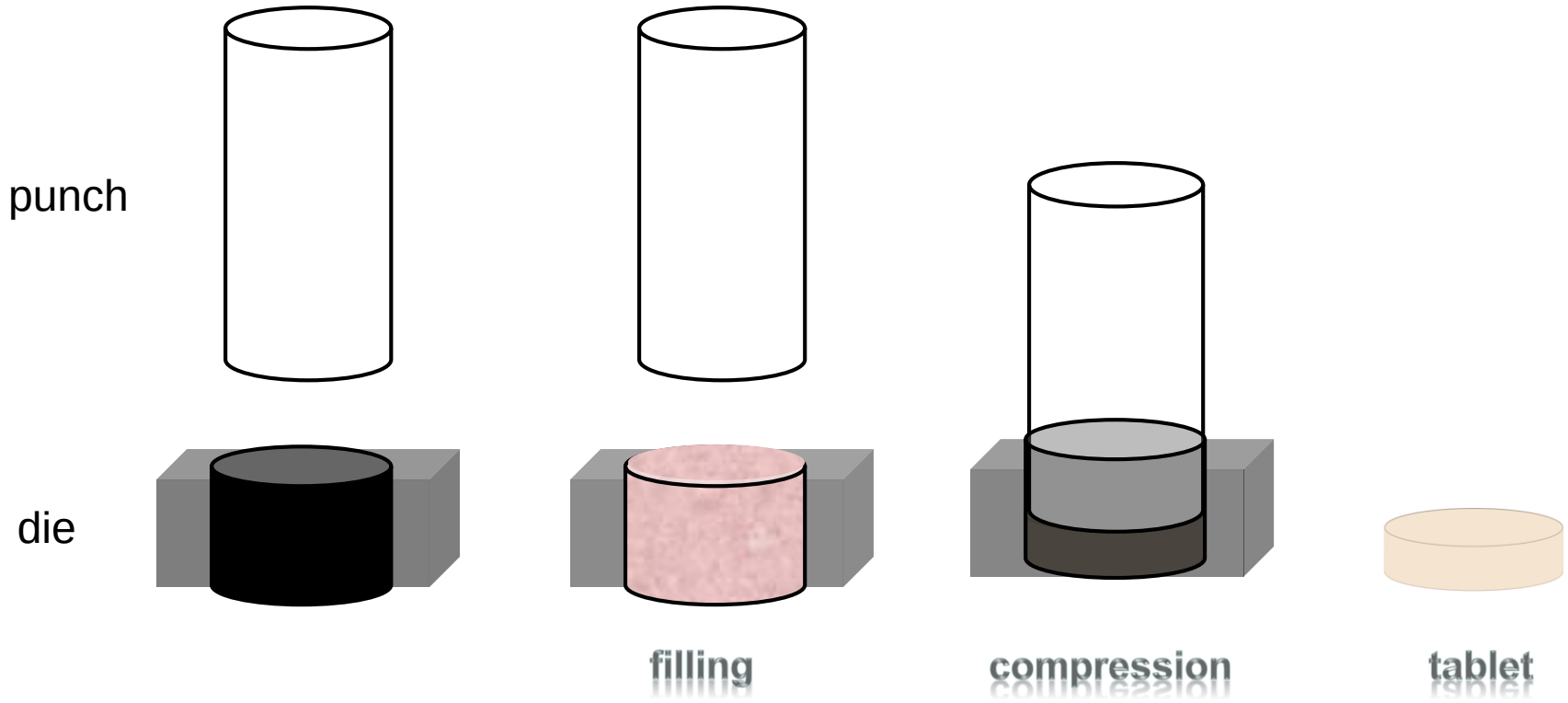
2088



2083

Ábra

Hand tabletting machine



Tablets

Tablet press machine(s)

- eccentric ~
- rotary ~

Tablets

Categories of tablets:

- Uncoated tablets
- Coated tablets
- Effervescent tablets
- Soluble tablets
- Dispesible tablets
- Orodispesible tablets
- Gastro-resistant tablets
- Modified-release tablets

Tablets

Packing of medications

Blister

Braille

Thank you for your attention