

# DRUG FORMS

Most drugs are specially prepared in a form designed for convenience of administration. This helps to ensure that dosages are accurate and that taking the medication is as easy as possible. Inactive ingredients (those with no therapeutic effect) are sometimes added to flavour or colour the medicine, or to improve its chemical stability, extending the period during which it is effective. The more common drug forms are described below.

## Tablets

These contain the drug compressed with other ingredients (see right) into a solid plug. Tablets can be either coated with a membrane that allows the drug to be released slowly for sustained effect or made up of individually layered granules for slow release; they can also be soluble in water.

## Capsules

The drug is contained in a cylindrically shaped gelatin shell that breaks open after the capsule has been swallowed, releasing the drug. Slow-release capsules contain pellets that dissolve in the gastrointestinal tract, releasing the drug slowly (facing page).

## Wafers/melts, pastilles, or lozenges

The drug is contained in a small wafer (or melt) placed on the tongue and allowed to dissolve. A pastille is a medicated "sweet" that is chewed; a lozenge is sucked.

## Liquids (oral)

Some drugs are available as liquid; the active substance is combined in a solution, suspension, or emulsion with preservatives, solvents, and flavouring or colouring agents. Many liquid preparations should be shaken before use, to ensure even distribution of the active drug, or inaccurate dosages may result.

## Mixture

A mixture is one or more drugs, either dissolved to form a solution or suspended in a liquid (often water).

## Elixir

An elixir is a solution of a drug in a sweetened mixture of alcohol and water. It is often highly flavoured.

## Emulsion

An emulsion is a drug dispersed in oil and water. An emulsifying agent is often included to stabilize the product.

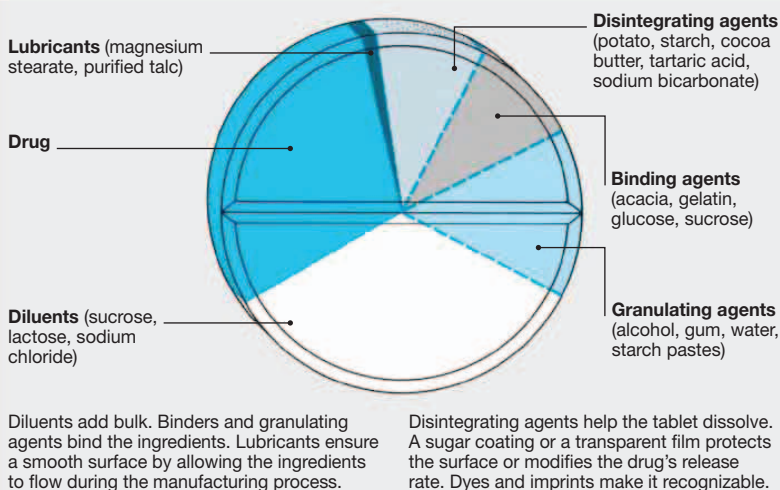
## Syrup

A syrup is a concentrated solution of sugar containing the active drug, with flavouring and stabilizing agents added.

## Topical skin preparations

These are designed for application to the skin and other surface body tissues.

## WHAT A TABLET CONTAINS



Preservatives are usually included to reduce bacterial growth. The most commonly used skin preparations are described below. (See also Bases for skin preparations, p.135.)

## Creams, ointments, and gels

A cream is a non-greasy preparation that is used to apply drugs to an area of the body or to cool or moisten the skin. It is less noticeable than an ointment.

An ointment is a greasy preparation used to apply drugs to an area of the body, or as a protective or lubricant layer for the relief of dry skin conditions.

A gel is a jelly-like suspension consisting of small, insoluble particles dispersed through a liquid. Most gels are non-greasy. They are most commonly used for face and scalp preparations.

## Lotion

A lotion is a solution or suspension applied to unbroken skin to cool and dry the affected area. Some are more suitable for use in hairy areas because they are not as sticky as creams or ointments.

## Injection solutions

Solutions for injections are sterile (germ-free) preparations of a drug dissolved or suspended in a liquid. Other chemicals (e.g., anti-oxidants and buffers) are often added to preserve the stability of the drug or to regulate the acidity or alkalinity of the solution. Most injectable drugs are packaged in sterile, disposable syringes. For details on different types, see Administration by injection, facing page.

## Suppositories and pessaries

These are solid, bullet-shaped dosage forms designed for easy insertion into the

rectum (suppository) or vagina (pessary). They contain a drug and an inert (chemically and pharmacologically inactive) substance often derived from vegetable oil or cocoa butter. The drug is gradually released in the rectum or vagina as the suppository or pessary dissolves at body temperature.

## Eye drops

A sterile drug solution (or suspension) dropped behind the eyelid.

## Ear drops

A solution (or suspension) containing a drug introduced into the ear by dropper. Ear drops are usually given to produce an effect on the outer ear canal.

## Nasal drops/spray

A solution of a drug for introduction into the nose to produce a local effect.

## Inhalers

Aerosol inhalers contain a solution or suspension of a drug under pressure. Dry-powder devices contain the drug in an inhalable powder form. A valve ensures delivery of a recommended dosage when the inhaler is activated. A mouthpiece facilitates inhalation as the drug is released from the canister. It is important to use the correct technique; you should follow the printed instructions carefully or ask your doctor, pharmacist, or nurse to show you what to do. Aerosol and dry-powder inhalers are widely used for asthma. (See also p.49.)

## Transdermal patches

These adhesive pads are impregnated with a drug and placed on the skin. The drug is released slowly through the skin (facing page).