

**FIGURE 8.3** Multiple compressed tablets. **A:** A core of one drug and a shell of another. **B:** A layered tablet of two drugs.

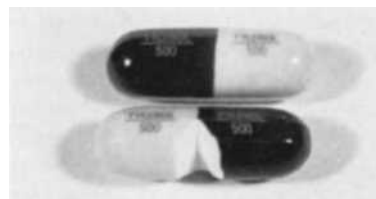
additional fill material and compression to form two-layered or three-layered tablets, depending on the number of separate fills. Each layer may contain a different medicinal agent, separated for reasons of chemical or physical incompatibility, staged drug release, or simply the unique appearance of the layered tablet. Usually, each portion of fill is a different color to produce a distinctive-looking tablet. In preparation of tablets within tablets, special machines are required to place the preformed core tablet precisely within the die for application of surrounding fill material.

### Sugarcoated Tablets

Compressed tablets may be coated with a colored or an uncolored sugar layer. The coating is water soluble and quickly dissolves after swallowing. The sugarcoat protects the enclosed drug from the environment and provides a barrier to objectionable taste or odor. The sugarcoat also enhances the appearance of the compressed tablet and permits imprinting of identifying manufacturer's information. Among the disadvantages to sugarcoating tablets are the time and expertise required in the coating process and the increase in size, weight, and shipping costs. Sugarcoating may add 50% to the weight and bulk of the uncoated tablet.

### Film-Coated Tablets

Film-coated tablets are compressed tablets coated with a thin layer of a polymer capable of forming a skin-like film. The film is usually colored and has the advantage



**FIGURE 8.4** Cutaway view of gelcaps dosage form, a gelatin-coated capsule-shaped tablet. Dosage form is more easily swallowed than a comparable tablet, smaller than an equivalent capsule, and tamper evident. (Courtesy of McNeil Consumer Products.)

over sugarcoatings in that it is more durable, less bulky, and less time-consuming to apply. By its composition, the coating is designed to rupture and expose the core tablet at the desired location in the gastrointestinal tract.

### Gelatin-Coated Tablets

A recent innovation is the gelatin-coated tablet. The innovator product, the gelcap, is a capsule-shaped compressed tablet (Fig. 8.4) that allows the coated product to be about one-third smaller than a capsule filled with an equivalent amount of powder. The gelatin coating facilitates swallowing, and gelatin-coated tablets are more tamper evident than unsealed capsules. Examples include Tylenol Cold Multi-Symptom Daytime (McNeil Consumer).

### Enteric-Coated Tablets

Enteric-coated tablets have delayed-release features. They are designed to pass unchanged through the stomach to the intestines, where the tablets disintegrate and allow drug dissolution and absorption and/or effect. Enteric coatings are employed when the drug substance is destroyed by gastric acid or is particularly irritating to the gastric mucosa or when bypass of the stomach substantially enhances drug absorption. Examples include Ecotrin tablets and caplets (GlaxoSmithKline Beecham).

### Buccal and Sublingual Tablets

Buccal and sublingual tablets are flat, oval tablets intended to be dissolved in the buccal pouch (*buccal tablets*) or beneath the tongue (*sublingual tablets*) for absorption through the