example, with opioids the peak effect is approximately a half hour for the IV route; with nonopioids the peak effect occurs about 2 hours after oral administration. For rapid onset and peak of action, opioids that quickly penetrate the blood-brain barrier (e.g., IV fentanyl) provide excellent pain control.

## Box 5-3

## Routes and Methods of Analgesic Drug Administration

## Oral

Oral route preferred because of convenience, cost, and relatively steady blood levels

Higher dosages of oral form of opioids required for equivalent parenteral analgesia

Peak drug effect occurring after 1 to 2 hours for most analgesics

Delay in onset a disadvantage when rapid control of severe or fluctuating pain is desired

## Sublingual, Buccal, or Transmucosal

Tablet or liquid placed between cheek and gum (buccal) or under tongue (sublingual)

Highly desirable because more rapid onset than oral route

• Produces less first-pass effect through liver than oral route, which normally reduces analgesia from oral opioids (unless sublingual or buccal form is swallowed, which occurs often in children)

Few drugs commercially available in this form

Many drugs can be compounded into sublingual troche or lozenge.\*