

Passive diffusion

- Surface area of bowel including microvilli approximately:
 - 2,000,000 sq cm
- Fasting increases
 - rate to peak plasma concentration
 - (Tmax decreased)
 - peak concentration (Cmax)
 - Clinical implications?

Lipid solubility

- Increased by :

- alkyl groups: methyl ethyl propyl
- aromatic rings

Water solubility

- Increased by

- - OH, - COOH, - NH₂
(hydrogen bonding)

Effect of pH on degree of ionisation

- Weak acids

- $AH \leftrightarrow A^- + H^+$ (\Rightarrow by high pH; *ion trapping*)
- aspirin

- Weak bases

- $BH^+ \leftrightarrow B + H^+$ (\Leftarrow by low pH)
- morphine
- lignocaine