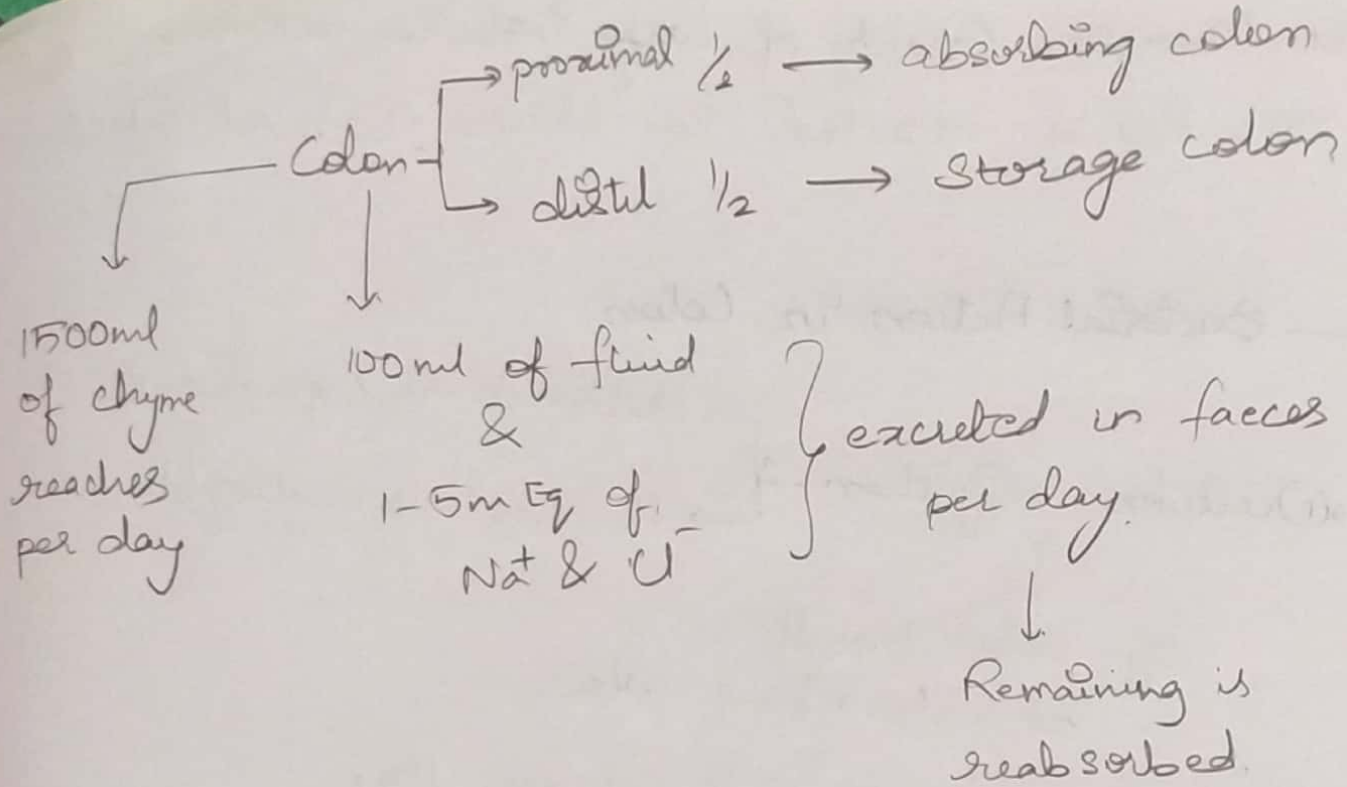




Absorption of Na^+ $\rightarrow$ Similar as Small Intestine

Absorption of Cl^- $\rightarrow$ $\text{Cl}^-/\text{HCO}_3^-$ exchanger

$\Downarrow$

$\Rightarrow \text{HCO}_3^-$ secreted. $\Downarrow$ neutralises acid by-products of bacterial actions

No back leakage of ions as tight junctions are more tighter than small intestine

$\Downarrow$

Back-leakage of ions is seen in small intestine

$\Rightarrow$ Absorption of Na^+ & Cl^- inc.

$\Downarrow$

Osmotic Gradient inc.

$\Downarrow$

Water Reabsorption inc.

→ Max. Absorption Capacity of Large Intestine $\Rightarrow$ 5-8 L H_2O
 $\Rightarrow$ >10 L H_2O is Secreted in Cholera / Bacterial Infections

Bacterial Action in Colon

① Cellulose digestion $\xrightarrow{\text{In}}$ Herbivores $\rightarrow$ significant
 Humans $\rightarrow$ negligible.
 ↓
 By colon bacilli at absorbing colon.

② Formation of Other Substances like.

- (i) Vit - B₁, B₂, B₁₂.
- (ii) Various gases (CO_2 , CH_4 , H_2) $\rightarrow$ flatus in colon.
- (iii) Vit - K.

↓
most imp.

↓
Ingested Vit-K is insufficient

Composition of Faeces $\rightarrow$ $\frac{3}{4}$ th water
 $\rightarrow$ $\frac{1}{4}$ th solid matter

Brown

colour :- Stercobilin, Urobilin

Odoriferous products

:- indole, skatole, mercaptan & HS

↓
Products of Bacterial Action

- $\rightarrow$ 30% $\rightarrow$ dead bacteria
- $\rightarrow$ 10-20% $\rightarrow$ fats
- $\rightarrow$ 10-20% $\rightarrow$ inorganic matter
- $\rightarrow$ 2-3% $\rightarrow$ proteins
- $\rightarrow$ 30% $\rightarrow$ Roughages
bile
sloughed out epithelium