

LACTOSE INTOLERANCE = ?

Milk
Dairy products } consists of Lactose.
||
Composed of glucose.
galactose.

DIGESTION

LACTOSE

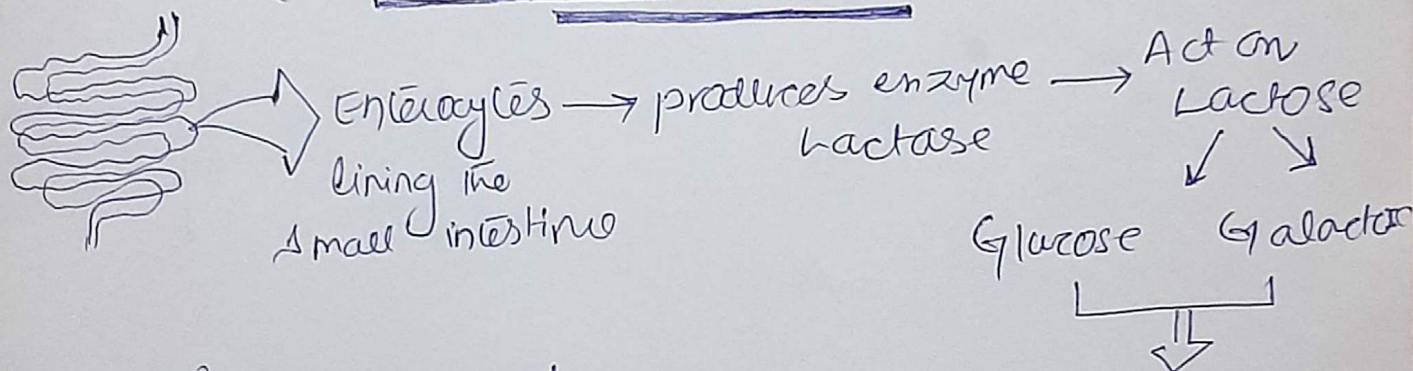
MECHANISM

(1) MFLIC/Dairy Product consumed

Enter stomach $\Rightarrow$ small intestine

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(2) ENZYMATIC - BREAKDOWN



These Sugars are used for energy or stored for future use.

⇐ These monosaccharides are absorbed and enter blood

CAUSES
OF
LACTOSE
INTOLERANCE

⇒ primary lactase deficiency: most common cause.

↳ production ↓ SC after weaning.

⇒ Secondary LD: occur due to damage to the small intestine from illness, injury or infection.

⇒ Congenital LD; individual are born with little or no lactase (genetic condition)
 For these infants = we use LF-milk or diet

Mechanism OF Lactose Intolerance

• In Lactase deficiency, Lactose is not adequately broken down in small intestine



Undigested passes into colon, where it is fermented by gut bacteria



• Fermentation produces gases like hydrogen, methane and CO₂ leading to the symptoms of lactose intolerance.



Bloating, flatulence, Abdominal pain,

• OSMOTIC-EFFECT - undigested lactose ↑ osmolality of intestinal content → drawing water into bowel



DIARRHEA.

MANAGEMENT

Dietary Modification

Ca²⁺ & VIT-D Supplements

Probiotics

Gradual introduction of Dairy

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and

Do watch lectures on

Pharmacology Study YouTube channel

DIETARY MODIFICATION

Lactose-Free diet

Lactase-enzyme
Supplements

- These can be taken before consuming Lactose-containing food to aid digestion.
- Some can be directly added to milk/dairy products while other are taken orally before consuming dairy

★ COLBPD drops.
(Lactase enzyme) → a.k.a →

★ - Lacteeze
(lactase)

★ - EZ-COLP
(β -galactosidase).

★ - Cowita drops.

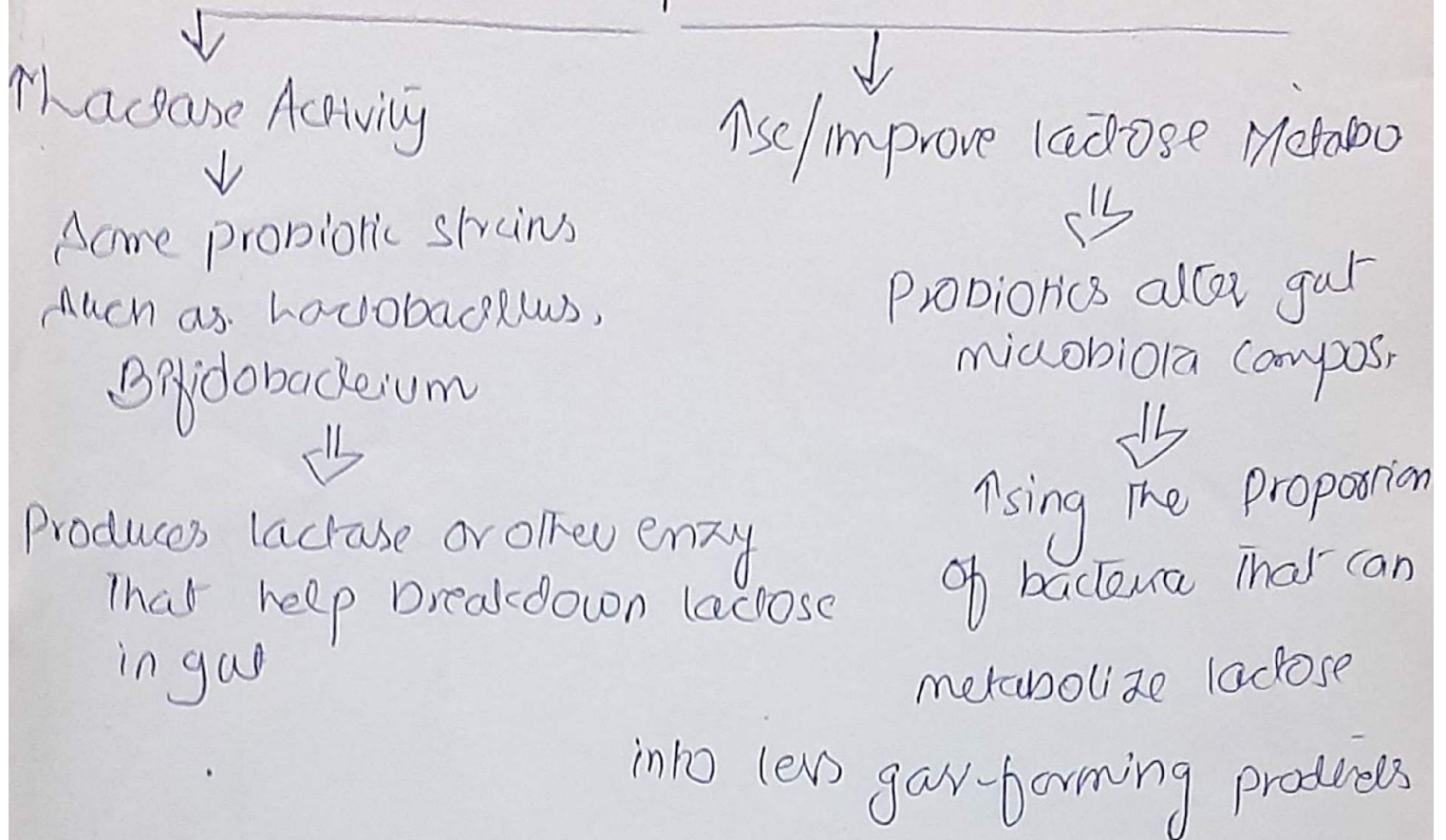
∴ Give 4-5 drops before every feed.

Calcium + vit-D Supplem.

- As calcium from dairy is not being consumed, Ca-Supplements or Ca-fortified food. And vit-D should be taken.

PHARMACO-STUDY YOUTUBE CHANNEL

— PROBIOTICS —



• Modulation of GIW pH :-

Probiotics produces short-chain fatty Acids and other metabolites ^{of lactic acid} that lower gut pH, creating an environment that is less favorable for lactose-fermenting or ~~other~~ pathogenic bacteria but more favorable for beneficial bacteria

Brands: -

- Lactococcus pentosaceus (lactic acid bacteria) [Pro-Celac]
- Bifidobacterium longum That ferment sugars into lactic acid

Dosage: 5 drops for 2 weeks or as advised by physician

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