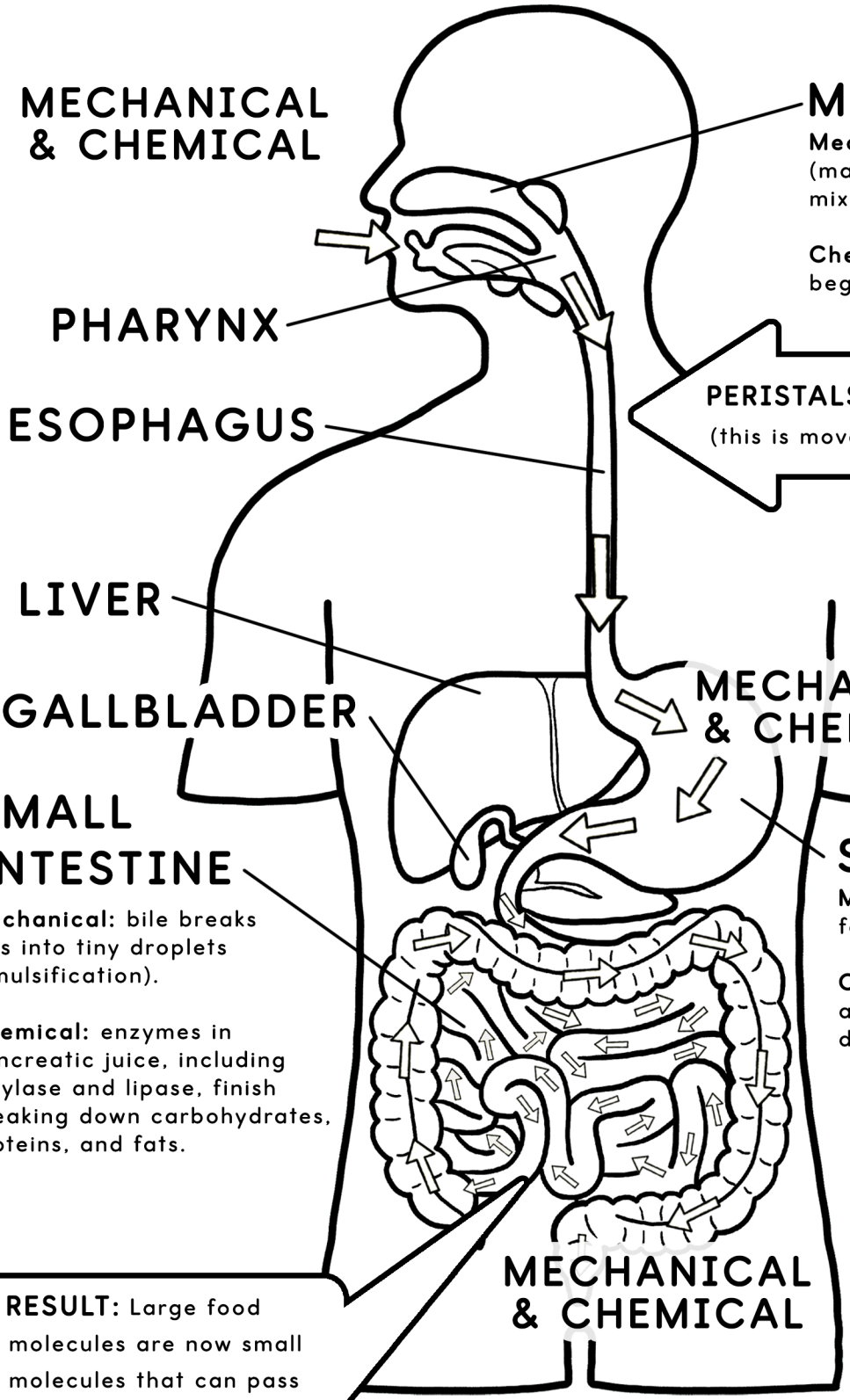
CHEMICAL VS. MECHANICAL DIGESTION



MECHANICAL & CHEMICAL

MOUTH

Mechanical: teeth chew food (mastication) and the tongue mixes it into a bolus.

Chemical: amylase in saliva begins breaking down starches.

PHARYNX

ESOPHAGUS

PERISTALSIS MOVES FOOD

(this is movement, not digestion).

LIVER

GALLBLADDER

MECHANICAL & CHEMICAL

SMALL INTESTINE

Mechanical: bile breaks fats into tiny droplets (emulsification).

Chemical: enzymes in pancreatic juice, including amylase and lipase, finish breaking down carbohydrates, proteins, and fats.

STOMACH

Mechanical: muscles churn food into chyme.

Chemical: hydrochloric acid and pepsin begin breaking down proteins.

MECHANICAL & CHEMICAL

RESULT: Large food molecules are now small molecules that can pass through the villi into the blood.

MECHANICAL DIGESTION changes the size of food pieces.

CHEMICAL DIGESTION changes the molecules food is made of.

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