

Intestine

Gastrointestinal system



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What does this tissue do?

It feeds you! After you eat a meal, it moves to the stomach where it is **digested**. This mushy food then passes through your intestines- a long pipe that absorbs all the useful **nutrients** that are needed for your body to function. It also absorbs that you drink! A lot of friendly bacteria live (**microbiota**) in the intestines and help keep it healthy and happy. All that remains of your food once it reaches the end of the intestine is... **feces** (poo)!

Main parts:

Small intestine- longer tube that is primary responsible for absorption of nutrients.

Appendix- small finger-like tube that stems off the intestines. The function is not known, but it is not essential for our body.

Large intestine (colon)- short fat tube that absorbs water and stores feces.

Rectum- short tube that feces passes through when you go to the toilet.

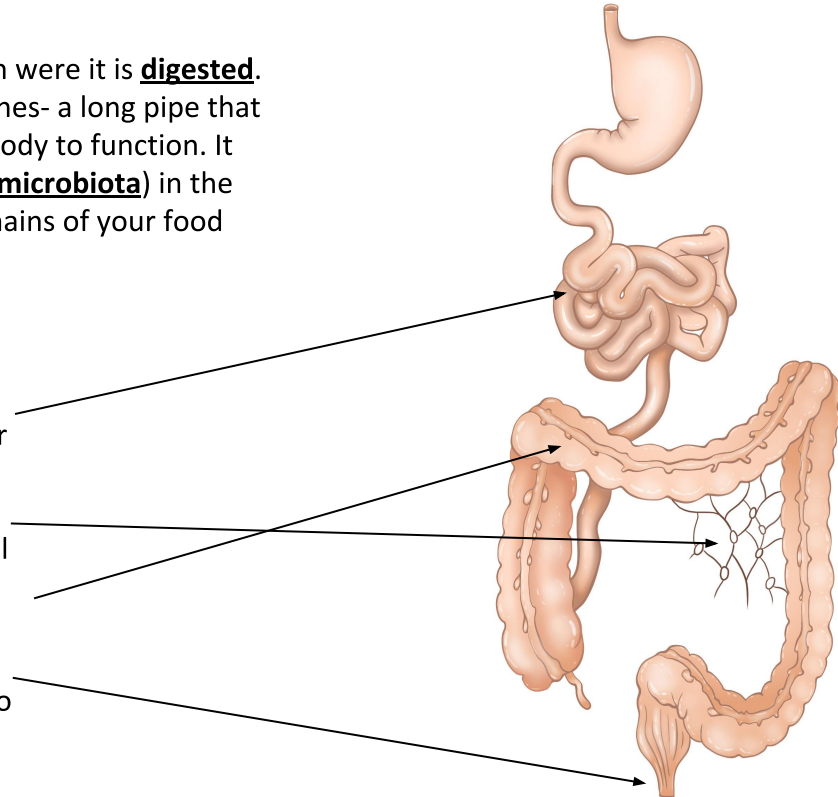










Illustration	Key cell types	Abundance	Function	Special features	Super powers
	Enterocyte/colonocyte	Very common	Absorbs nutrients and water	Has tiny hairs to increase the contact with the contents of your gut	Takes up essential nutrients and water
	Goblet	Common	Makes mucus (slime), so the gut stays moist and bacteria can't invade your body	Mucus (slime) production	Multi-taskers
	Crypt	Common	Tissue repair and regeneration	Turns into other intestinal cell types	Super stem cell
	Transit amplifying	Common	Transitioning cell from stem cell to other gut cell types		
	Paneth	Common	Makes particles that maintain the microbiota	Exist only in the small intestine	Multi-taskers
	M cell	Very rare	Samples bacteria from inside your gut and uses them to alert immune cells if bad bacteria is present	Has big holes for the bacteria to sit in	Infection protection
	Tuft	Common	'Tastes' chemicals from your food and from the bacteria	A 'tuft' of hair on one side	Taste cells of your gut
	Enteroendocrine cell	Rare	Makes <u>hormones</u> , signals to communicate to your brain and the rest of your body	A long arm to help pass signals to other cells	Lets you know when you're hungry or have eat something rotten

DEFINITIONS

SCIENTIFIC TERM	DESCRIPTION
Digest	Break down food that you eat into small particles that can be used be taken up and used by all cells of the body.
Nutrients	Particles in foods that are essential for life. They provide us with energy and are the building blocks for repair and growth.
Microbiota	The good bacterial, viruses and fungus that live in your gut and on other body surfaces that are very important for health.
Feces	Waste matter (poo) that remains after food has been digested. It is removed from the body when you go to the toilet.
Hormone	Chemical signals that are made by cells such as enteroendocrine cells and travel through the bloodstream to communicate to other organs such as the brain.