

Digestive system: chart: 2

08.032

Body part	Blood supply	Nerve supply	Function(s)
Pancreas	Splenic artery; superior and inferior pancreaticoduodenal arteries; veins drain into portal, splenic, and superior mesenteric veins	Sympathetic: celiac plexus Parasympathetic: celiac plexus	Produces digestive enzymes and digestive juice
Duodenum	Superior and inferior pancreaticoduodenal arteries; superior and inferior pancreaticoduodenal veins (draining into splenic, superior mesenteric, and portal veins)	Sympathetic: celiac plexus Parasympathetic: vagus nerve	Breakdown and absorption of food
Jejunum	Superior mesenteric artery; superior mesenteric vein (which joins splenic vein to form portal vein)	Sympathetic: superior mesenteric plexus Parasympathetic: vagus nerve	Breakdown and absorption of food
Ileum	Superior mesenteric artery; superior mesenteric vein (which joins splenic vein to form portal vein)	Sympathetic: superior mesenteric plexus Parasympathetic: vagus nerve	Breakdown and absorption of food
Colon	Anterior cecal, posterior cecal, appendicular, and ileocolic arteries; right colic, middle colic, left colic, and sigmoid arteries (branches of mesenteric arteries); mesenteric veins	Sympathetic: superior mesenteric plexus; inferior mesenteric and hypogastric plexuses Parasympathetic: vagus nerve; inferior mesenteric and hypogastric plexuses	Absorption of water; production of some vitamins; storage of undigested food; formation and storage of feces
Rectum	Superior, middle, and inferior rectal arteries; superior, middle, and inferior rectal veins	Sympathetic: hypogastric plexuses Parasympathetic: hypogastric plexuses	Storage of feces
Anal canal	Superior and inferior rectal arteries; superior and inferior rectal veins	Sympathetic: inferior hypogastric plexus Parasympathetic: inferior hypogastric plexus Somatic: inferior rectal nerves (supply distal half only)	Defecation