

Tips for Optimal Digestion

Stage of Digestion	Parasympathetic Nervous System Actions / Physiological Effects of Mindful Eating	Sympathetic Response / Physiological Effects of Stress Eating	Tips
Overview	Rest and Digest <ul style="list-style-type: none"> • Saliva secretion • Stomach acid production • Digestive enzyme production • Bile production • Nutrient absorption • Intestinal motility • Cleansing waves • Bowel movements 	Fight or Flight <ul style="list-style-type: none"> • Blood flow is diverted from the digestive system. • Opposite of “rest & digest”. • May result in overeating or undereating, indigestion, poor nutrient absorption, potential constipation or diarrhea. 	<ul style="list-style-type: none"> <input type="checkbox"/> Eat only when you are physically hungry. <input type="checkbox"/> Balance your meals with foods that will allow you to feel full and stay full. Include nonstarchy vegetables, sources of healthy fats, protein, complex carbohydrates.
Cephalic Phase	Head <ul style="list-style-type: none"> • Anticipation of food prepares your body for digestion. • Sight, sound, smell and thought of food elicits signals from the brain that travel down the vagus nerve telling the rest of the GI tract to prepare for digestion. • You may secrete as much as 40% of the hydrochloric acid (HCl) and digestive enzymes needed to break down the foods you eat before you consume a single ounce. Mouth <ul style="list-style-type: none"> • Mechanical and chemical digestion begins as food is chewed and enzymes in saliva are secreted. 	<ul style="list-style-type: none"> • Inhibits flow of saliva which contains digestive enzymes. • Overeating puts a strain on the lower esophageal sphincter which can lead to reflux. • If you don't leave enough space for the stomach to churn food, undigested food can travel to the small intestines putting you at risk for bacterial overgrowth (SIBO). 	<ul style="list-style-type: none"> <input type="checkbox"/> Stop and take some slow, full breaths for 2 – 5 minutes before you eat. <input type="checkbox"/> Check in with your hunger level. (See hunger-fullness scale.) <input type="checkbox"/> Sit down at a table to eat. <input type="checkbox"/> Look at and smell your food before eating. <input type="checkbox"/> Chew your food thoroughly – 20-40 times per bite. Your stomach does not have teeth! Swallow your first bite before you take another bite.
Esophageal Phase	Esophagus: 9 ½ inches long <ul style="list-style-type: none"> • Peristalsis, wavelike contractions, move chewed food down the esophagus through the lower esophageal sphincter to the stomach. 	<ul style="list-style-type: none"> • Peristalsis can be impeded. 	<ul style="list-style-type: none"> <input type="checkbox"/> Sit calmly while eating.

<p>Gastric Phase</p>	<p>Stomach: 12 inches long & 6 inches wide at its widest point</p> <ul style="list-style-type: none"> • It can comfortably hold 1 quart of food but it will hold much more if forced. • Physical disassembly of food (mechanical digestion) is completed. • The stomach secretes gastric acid powerful enough to burn you if you touched it. • It secretes digestive enzymes strong enough to rip apart proteins and fats. • It takes the stomach about 4 hours to complete its digestive duties. 	<ul style="list-style-type: none"> • Slows or stops digestion in stomach. • Increases or decreases stomach acid production leading to indigestion. 	<ul style="list-style-type: none"> <input type="checkbox"/> Between bites, put your food or fork down and breathe. Talk if you are with others. <input type="checkbox"/> When you are 50-75% through your meal, check in again with your hunger level. (See hunger-fullness scale.) <input type="checkbox"/> Fill the stomach only about 2/3 full. Don't over fill your stomach with food and/or liquids at meals. There needs to be space for food to mix and churn in your stomach to digest properly – like a blender when you're making a smoothie. Eat until you're "comfortable" and have sips of liquid with your meals. <div data-bbox="1402 781 1997 1206" style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <ol style="list-style-type: none"> 1. Mark any tips above that you plan to incorporate over the next week. 2. List 1-2 additional strategies will you try: </div>
<p>Intestinal Phase</p>	<p>Small Intestine: 22 – 23 feet long</p> <ul style="list-style-type: none"> • Fingerlike projections called villi line the small intestine and absorb the nutrients from digested food. • 70-80% of your immune system lines the intestines. <p>Large Intestine (colon): 5 - 6 feet long</p> <ul style="list-style-type: none"> • Most of your bacteria, microbiome, live in the colon. • Friendly organisms in your microbiome consume what hasn't been absorbed from your food. These bacteria ferment carbohydrates the human body is otherwise unable to use. • The bacteria in the colon produce Vitamin K, biotin and other essential nutrients. • Water in the waste materials is reabsorbed into the body, and the final waste product collects in the rectum which leads to a bowel movement. 	<ul style="list-style-type: none"> • Peristalsis can be impeded causing constipation. • Decreases secretion of digestive enzymes (from pancreas and gall bladder) leading to indigestion. • Diarrhea can occur. • Suppresses immune system. 	

For additional recommendations tailored to your digestive needs, please consult a SAS Registered Dietitian Nutritionist.