

## Parasympathetic & Sympathetic Nervous Systems (PSN and ANS)

The **parasympathetic nervous system** controls the body's **homeostasis** of balance. Homeostasis refers to metabolic balance within the body from several processes:

1. Acid Balance
2. Body Temperature
3. Fluid Volume
4. Calcium Balance
5. Glucose Concentration

The **parasympathetic nervous system** is one of three divisions of the autonomic nervous system. Sometimes called the "**rest and digest system**", the **parasympathetic system** conserves energy as it slows the heart rate, increases intestinal and gland activity, and relaxes sphincter muscles in the gastrointestinal tract.

The **ANS** or **Autonomic Nervous System** is responsible for involuntary functions in the human body.

The **sympathetic nervous system** or **SNS** is responsible for the body's "fight or flight" response. This is the action or reflex you feel in times of extreme panic, anger, or defense. The body speeds up or tenses and becomes more alert. This is your survival mode.

	<u>(PSN) Parasympathetic</u>	<u>(SNS) Sympathetic</u>
Cardiovascular System	Decreases heart rate	Bronchial tubes dilate
Pulmonary (lungs)	Bronchial tubes constrict	Bronchial tubes dilate
Muscles	Muscles relax	Muscles constrict
Pupils	Constrict sphincter muscle	Dilate dilator muscle
Gastrointestinal	Increase stomach movement/ Secretions	Decrease movement/secretion
Salivary glands	Production increases	Production decreases
Adrenal glands	No involvement	Reduces adrenaline
Glucose conversion	No involvement	Converts glycogen for muscle energy

When the body is in a state of tension and stress to the point the sympathetic system is activated more often than not the adrenal glands will be activated over time and can affect many functions of the body to include high blood pressure, sexual dysfunction, and immune weakness.

## **Thinning or Thickening Pupillary Border (Inner Pupillary Ruff)**

1. Could mean Parkinson's, tremors when thick
2. Not a lot of acid
3. Betaine HCL helps for stomach
4. Central nervous system needs work