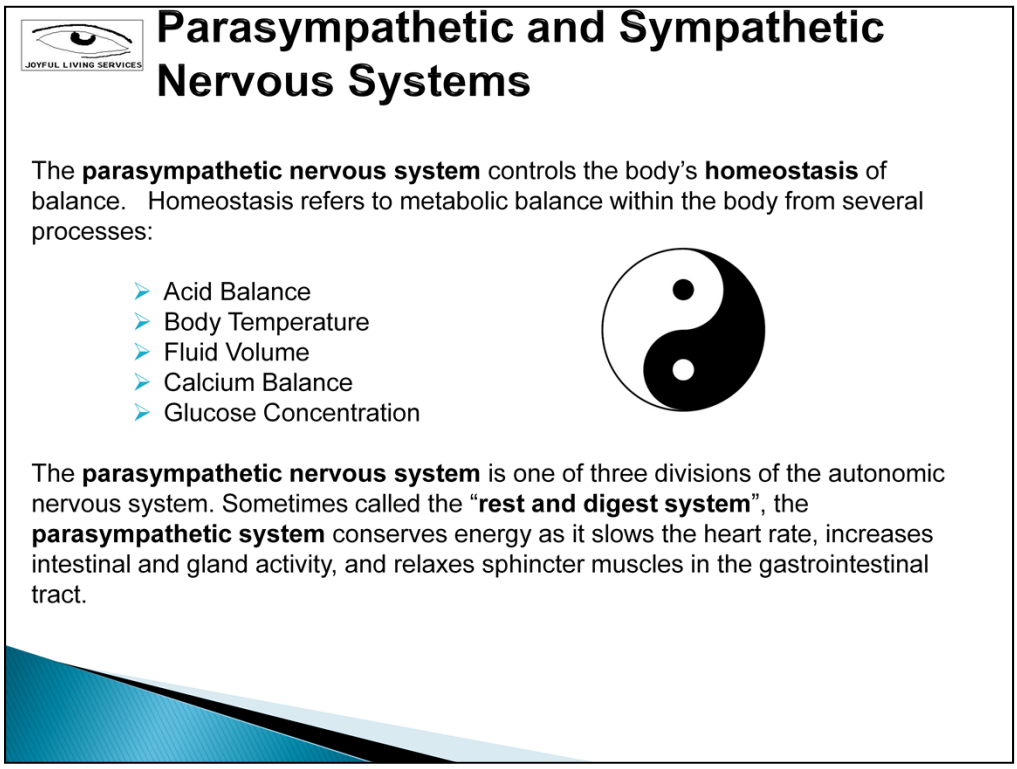
JOYFUL LIVING SERVICES

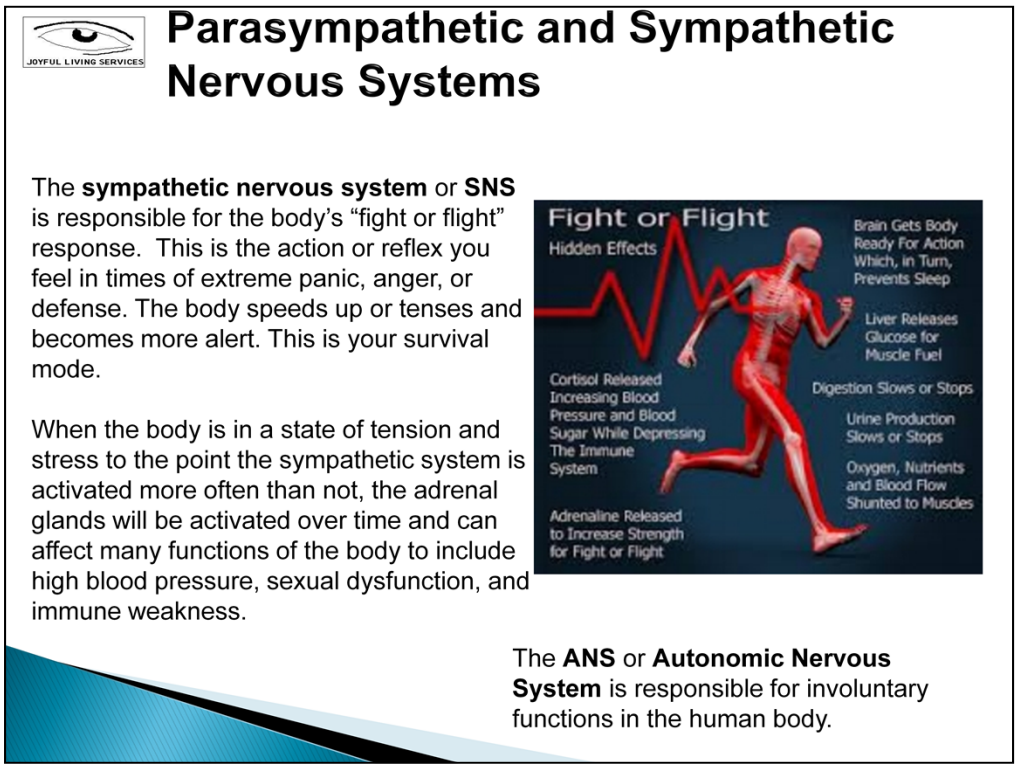
Parasympathetic and Sympathetic Nervous Systems



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

- Acid Balance
- Body Temperature
- Fluid Volume
- Calcium Balance
- 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.



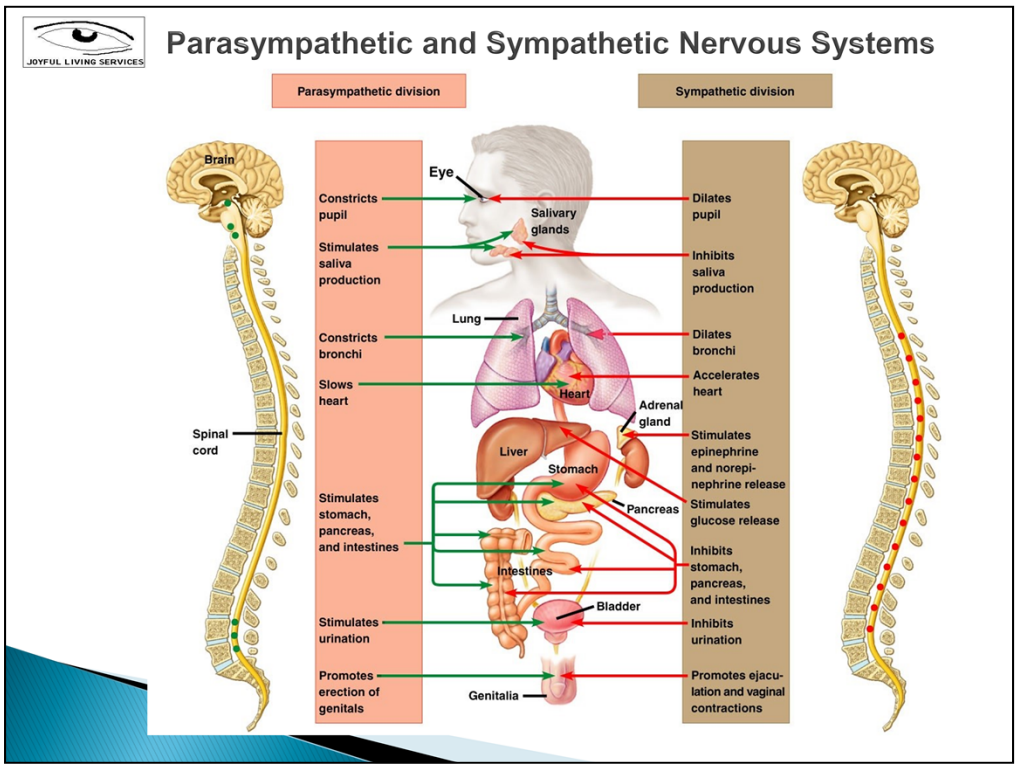
The **sympathetic nervous system** or **SNS** is responsible for the body's "fight or flight" response. This is the action or reflex you feel in times of extreme panic, anger, or defense. The body speeds up or tenses and becomes more alert. This is your survival mode.

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.

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

Parasympathetic and Sympathetic Nervous Systems

	(PSN) Parasympathetic	(SNS) Sympathetic
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
	Relaxed	Fight or Flight


JOYFUL LIVING SERVICES
Parasympathetic and Sympathetic Nervous Systems
Parasympathetic division
Sympathetic division
Brain
Spinal cord
Eye
Salivary glands
Lung
Heart
Adrenal gland
Liver
Stomach
Pancreas
Intestines
Bladder
Genitalia
Constricts pupil
Stimulates saliva production
Constricts bronchi
Slows heart
Stimulates stomach, pancreas, and intestines
Stimulates urination
Promotes erection of genitals
Dilates pupil
Inhibits saliva production
Dilates bronchi
Accelerates heart
Stimulates epinephrine and norepi-nephrine release
Stimulates glucose release
Inhibits stomach, pancreas, and intestines
Inhibits urination
Promotes ejacu-lation and vaginal contractions