

The **sympathetic nervous system** mediates the body's response to arousal/activity/anger/fear/stress.

Primary target organs are:

- *Heart, blood vessels* >> increased heart rate and force, constriction of peripheral blood vessels and those in the gut to allow greater supply to muscles
- *Lungs* >> dilation of airways for easier breathing
- *Smooth muscle in organs* >> reduced gut function; pupil dilation; bladder sphincter closed; goosebumps
- *Glands (sweat, salivary, digestive)*; reduced urine secretion; sweat on palms and other sites ('adrenergic sweating')
- *Metabolic tissue (fat cells, liver)* >> increased blood sugar
- *Ejaculation*

The **parasympathetic system** returns the body to 'steady state':

- Heart rate decreases
- Bronchial muscle relaxes
- Pupil constricts
- Bladder sphincter relaxes
- Digestive functions resume
- Penile erection

This is a rather simplified picture.