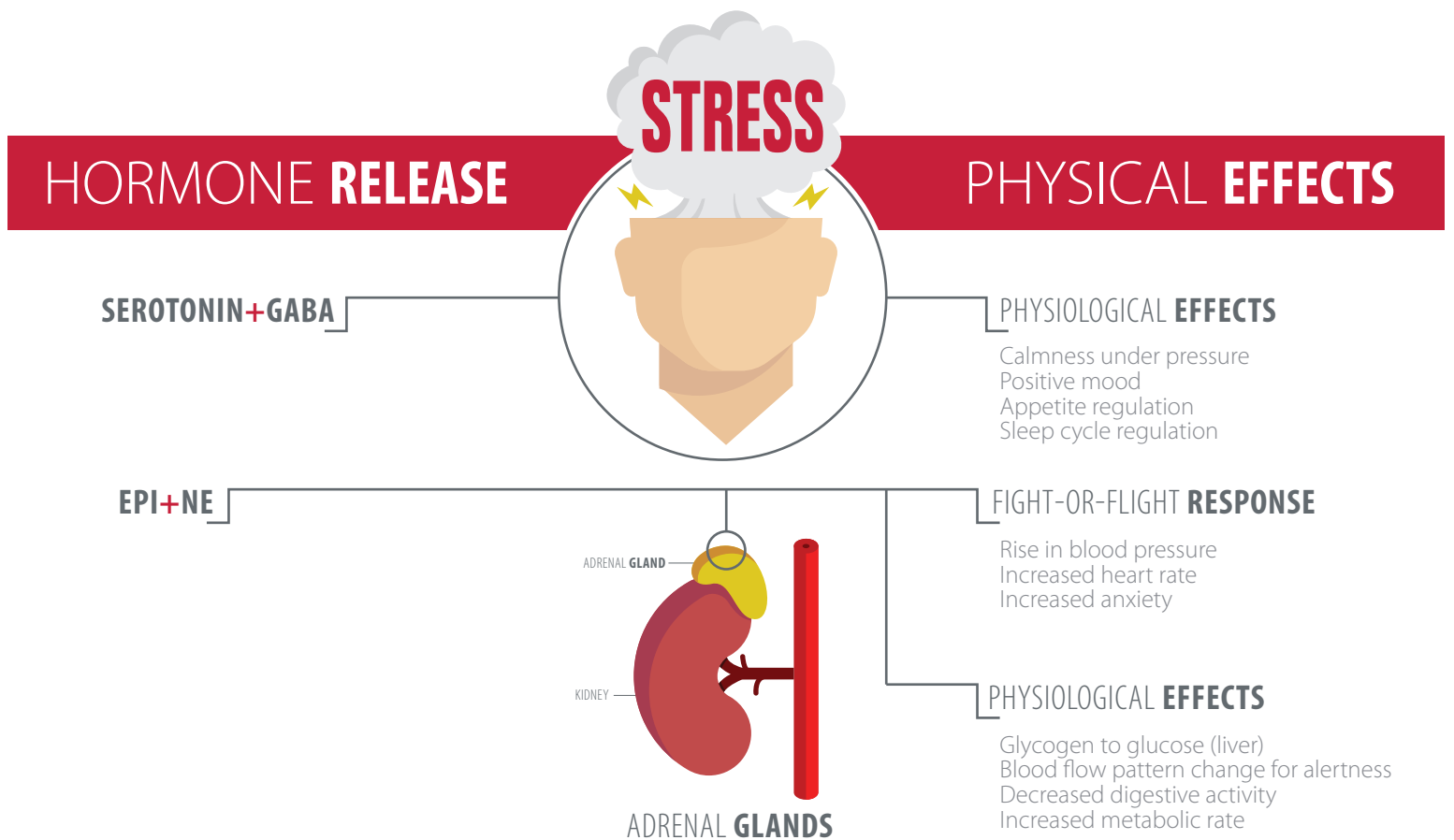


Stress

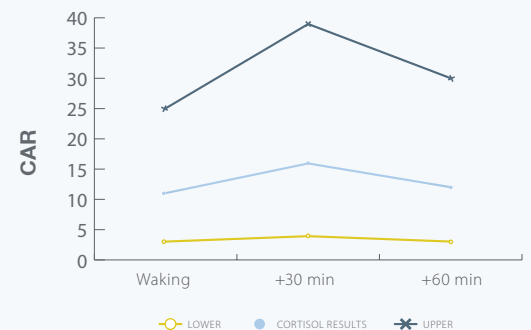
& the Sympathetic Nervous System

Activation of the stress response by any means stimulates the sympatho-adrenomedullary system. This promotes the release of neurotransmitters, epinephrine (EPI), norepinephrine (NE), serotonin and gamma-aminobutyric acid (GABA). EPI and NE initiate the "fight-or-flight" mode, allowing you to get away from danger. These two neurotransmitters also support alertness,

energy, concentration, mood regulation and memory. Serotonin and GABA are released to counteract the effects of stress. In addition, serotonin and GABA increase calmness under pressure, support positive mood, and assist regulation of appetite and the sleep cycle. Chronic stress leads to a depletion of neurotransmitters and creates an imbalance in mood regulation.



CORTISOL LEVELS	ELEVATED	REFERENCE RANGE 50%-150%	SUPPRESSED
	Acute stress Fear, anxiety Mental/emotional stress	Appropriate response	Chronic stress Depleted neurotransmitters/HPA response Fatigue, depression, depressed immunity
PHYSIOLOGICAL EFFECTS	Overactive HPA axis Anticipatory perceived stress Consistent job-related stress Glycemic dysregulation Pain from muscle or joints, migraine General depression (not SAD)		Underactive HPA axis Excessive psychological burnout Seasonal affective disorder (SAD) Sleep apnea or poor sleep in general PTSD Chronic fatigue



CAR Cortisol Awakening Response EPI Epinephrine GABA Gamma-aminobutyric acid NE Norepinephrine

Lifestyle Recommendations



MOVEMENT

Aim for 150 minutes of walking per week or 10,000 steps per day



STRESS MANAGEMENT

Identify your stressors
—
Prioritize what is most important in your life
—
Schedule time off
—
Spend time in nature



DIET

Avoid sugar
—
Avoid inflammatory foods like gluten, dairy and soy
—
Eat three to five well balanced meals per day with lean protein, colorful vegetables and healthy fats
—
Eat within a 12-hour window or less and at least two hours before bed



SLEEP

Aim for at least 30 minutes of outdoor (even overcast) light each day with sunglasses off for some of the time
—
Aim for seven to eight hours of quality sleep each night
—
Avoid blue light from cell phones and screens at least two hours before bedtime
—
Keep the bedroom cooler for more restful sleep

Nutrient Recommendations

NEUROTRANSMITTER SUPPORT

5-HTP
Inositol
L-tyrosine
Mucuna pruriens

5-HTP directly converts into the calming and mood-regulating neurotransmitter serotonin.
Inositol helps increase neurotransmitter release from the nerve cell.
L-tyrosine and *Mucuna pruriens* naturally convert into the mood-boosting neurotransmitter dopamine.

CALMING SUPPORT

PharmaGABA™
L-theanine
Taurine
Melatonin

PharmaGABA™, L-theanine and taurine boost calming neurotransmitter GABA and promote relaxation.
Melatonin is a hormone necessary for restful sleep.

OTHER REPLENISHING NUTRIENTS FOR STRESS

MULTI-VITAMIN/MINERAL

B-COMPLEX

MAGNESIUM
100-600 mg/day

DHEA
25-50 mg/day

PREGNENOLONE
30-50 mg/day

VITAMIN D
1,000-5,000 IU/day

5-HTP
75-300 mg/day
INOSITOL
1,000-2,000 mg/day
L-TYROSINE
200-2,000 mg/day
MUCUNA PRURIENS
400-800 mg/day

PHARMAGABA™
100-400 mg/day
L-THEANINE
100-400 mg/day
TAURINE
100-1,000 mg/day
MELATONIN
1 mg before bed*

*As recommended by your health care professional.