

Adrenaline: Fight or Flight

The hormone adrenaline preps your body to cope with stress. How your body creates and uses it:

- 1** You eat beef, chicken, cheese, eggs, and other high-protein foods. Your liver extracts amino acids, and sends them to the adrenal glands, where they get reshaped into adrenaline and stored (break glass in case of emergency).



- 2** EMERGENCY! Your adrenal glands release adrenaline into the blood in a "mass discharge". Your body shifts into "fight or flight" mode, and adrenaline blood levels can shoot up 8 to 10 times as high as when you're at rest. Adrenaline binds to receptors on the cell walls of target organs in a matter of seconds.



- 3** More blood travels to your brain; your mind is sharper.
- Pupils dilate; your vision is clearer.
- You sweat more, too.
- The blood clots more readily, which helps minimize blood loss.
- Hunger is no longer a priority: Blood vessels feeding the gastrointestinal tract narrow and digestive movements slow.
- The airways in the lungs dilate, taking in more oxygen.
- The heart contracts more forcefully and pumps out more blood.
- Blood levels of cholesterol, glucose and fatty acids – available sources of fuel – increase.
- More blood gets more oxygen and glucose to the skeletal muscles, which get stronger.

- 4** THREAT PASSES. Once the nerves start discharging, these adrenalized effects last for 1 or 2 minutes. But after that time limit is up, the adrenaline chemicals oxidize and are converted into waste-product chemicals and are shipped out in urine. You zip up, and move on with your day.

