The Effects of Chronic Stress on the Body

by Majorie Davis

A wild animal is living under chronic stress the entire time it is in captivity. Stress compounds. Stress is a cumulative response as the wild animal copes with change. A wild animal that appears to be calm and submissive is under stress and usually in shock. Factors include fear, over exertion, repeated handling, lack of rest from pursuit, prolonged transportation, confinement in cages or sacks. A wild animal reacts to strange sounds, sights and odors, unexpected touches, changes in locality and abrupt changes in temperature. Lack of contact with others of its own species can bring about stress.

A stressed animal may react in various ways. For example, the animal may exhibit aggressive behavior such as struggling, biting, or refusal to eat or drink. Remember this fawn has recently been removed from its mother and the only life it knows. To this wild animal all humans are predators. Picking up this sensitive, delicate creature, holding, touching, petting and talking to it does not comfort it, to the contrary the animal feels nothing but terror. Cornering, capturing, confining, teasing, petting, playing with and passing a fawn from person to person can kill it. Once the vital organs shut down this action cannot be reversed.

A biological response to danger or unpleasant experience produces stress.

Some stress is necessary for optimal growth and health. However, chronic stress/stressors can cause depletion of resources.

Stressors are: Whatever the species is trying to avoid, such as the sight of a predator to a prey animal. Note: Humans are predators. The human touch, voice, odors are stressors to wildlife.

Chronic stress takes a toll on the body which may lead to diminished immune function, vulnerability to infection and coronary disease. Refer to article on Capture Myopathy in Part Four of the manual.

Each species processes stress differently.

Although acute stress responses are necessary for survival, chronic stress breaks down the body: If activated too often, or for too long a time, the stress response may harm the immune system, brain and heart.

During (1) immediate, (2) delayed, and (3) chronic response to threat, the body channels resources for strength and speed.

- **Brain**:
  (1) Stress protectively dulls the body's sense of pain. (2) A few minutes after the fight-or-flight response, the center of learning and memory activates to process the stress. (3) If prolonged, fatigue, anger and depression increase.

- **Eyes**: The pupils dilate for better vision.

- **Lungs**: The lungs take in more oxygen.

- **Liver**:
  (1) Sugar stored as glycogen is converted to glucose. (2) Fat - stored energy - is converted into usable fuel.

- **Heart**:
  (1) The blood stream brings extra oxygen and glucose - fuel for power. Heart rate and blood pressure rise.

- **Adrenal glands:**
  (1) The medulla secretes fight-flight adrenaline. (2) The cortex secretes cortisol, which regulates metabolism and immunity. Over time cortisol can be toxic.

- **Spleen**:
  (1) Extra red blood cells flow out, allowing the blood to carry more oxygen to muscles.

- **Intestines**:
  (1) Digestion halts, allowing the body to dedicate energy to the muscles. (3) Decreases in blood flow leave mucous lining vulnerable.

- **Hair**: Body hairs become erect -puffed up hair makes the animal look bigger and more - dangerous.

- **Immune system**:
  (2) Infection-fighting is diminished to increase available energy. (3) Repeated suppression of disease-fighting cells weakens resistance to infection.

- **Circulatory system:** Elevated blood pressure and heart rate damage the elasticity of blood vessels.