

Worried Sick?

Stress can have serious medical consequences on dogs.

Dogs' bodies—like humans'—have a natural defense system against outside challenges.

The threat of predators, hunger, perceived danger, or another hazardous situation can elicit the stress response, known as the “fight or flight” syndrome. Some portions of the stress response are normal and necessary. It allows living organisms to respond to the unforeseen challenges of an uncertain existence. But the “fight or flight” response was meant to remedy short-term, life-threatening problems, not to be activated for extended

periods of time. A number of physiological changes result from it—and when sustained over time can lead to long-lasting, detrimental effects.

When stressed, the body produces a chain of chemicals, such as cortisol, epinephrine, and norepinephrine. These substances then result in a more rapid heart rate and respiratory rate, increased muscle sensitivity, and heightened alertness in an attempt to improve an animal's response to stressful stimuli.

Although some bodily functions are improved and made more efficient by stress,

many other normal bodily functions such as the digestive, immune, and reproductive systems are slowed down. The short-term responses to stress can be seen as beneficial, but long-term or chronic stress can have harmful and far-reaching negative effects. The hormones and neuroendocrine messengers released during anxious periods are meant to be protective in the short-term but eventually debilitate the body and make it more susceptible to infection and disease. Continually stressed animals may display chronic vomiting or diarrhea. If left unchecked, chronic

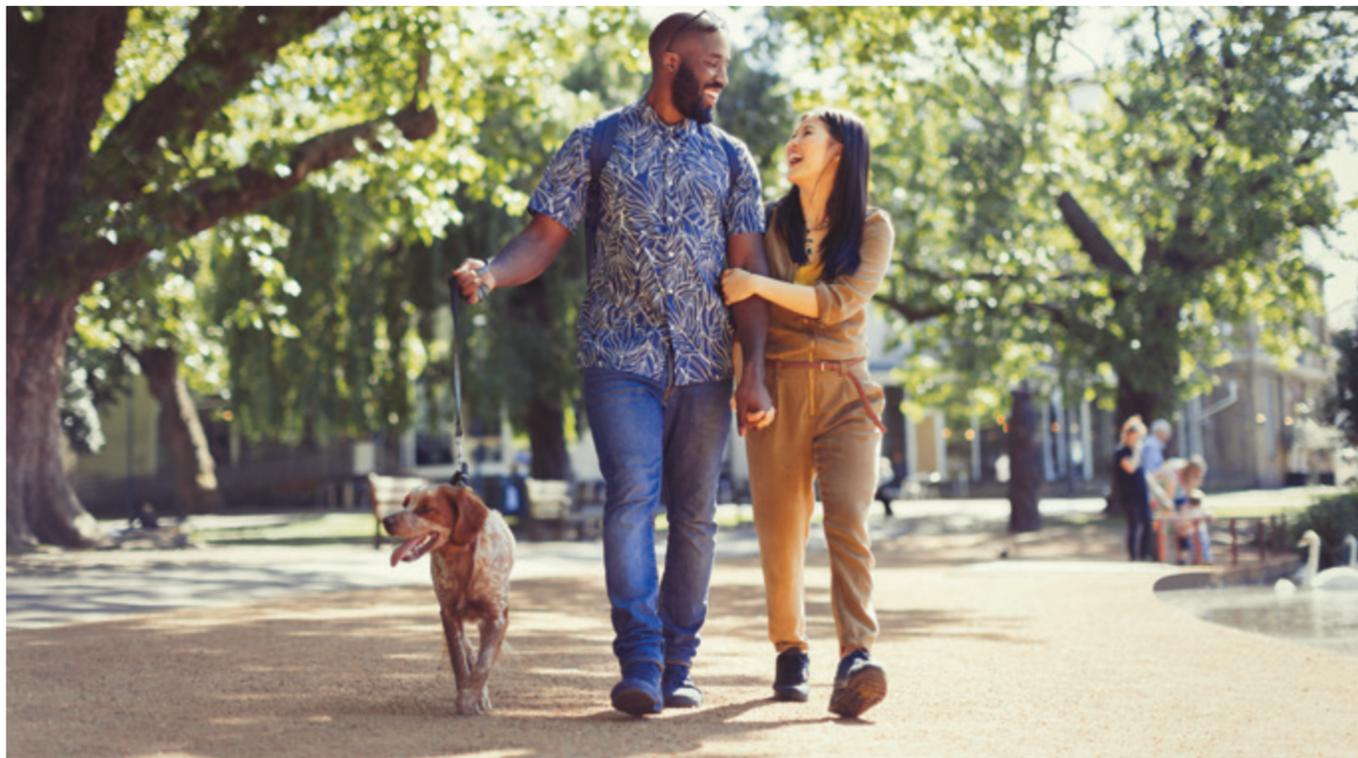
stress can lead to heart disease and persistent high blood pressure, strokes, gastrointestinal upset and ulcers, loss of appetite and eating disorders, reproductive problems, weight loss, and lowered immunity to disease. Chronic low-grade stress has been shown to stimulate a reciprocal inflammatory response that can lead to intermittent fever, vomiting, diarrhea, inappetence, loss of house-breaking, and arthritic pain.

Chronic stress can lead to behavioral problems, such as withdrawal, aggression, interruption of normal sleep patterns, fatigue, anxiety, depression, nuisance barking, self-mutilating behaviors, and loss of concentration. It can cause dogs to become “finicky” eaters and lose interest in favorite foods. Thus unless stressors are swiftly recognized, chronic stress syndrome can dramatically affect an animal's quality of life.

It also can affect reproduction. Chronic stress stimulates the synthesis and secretion of the recognized stress hormones glucocorticoid, catecholamine, progesterone, and glucagon. Abnormal hormonal profiles have been shown to interfere with pregnancy in every mammal so far studied.

The challenge for veterinarians, canine behaviorists, and the dog-owning public is to identify causes of stress in our canine companions and to eliminate them and counter the effects.

There are several time-tested ways to help



eliminate stress and anxiety in dogs. Regular exercise is a good way to not only spend quality time with your dog, but also maintains a healthy weight, keeps your dog mentally stimulated, and counters stress through the release of serotonin and endorphins. Noise-related stressors like thunderstorms and seasonal fireworks sometimes can be countered by the swaddling “ThunderShirts” available at many pet stores. If your dog has separation anxiety, your veterinarian may prescribe medications in addition to behavior modification with an expert. Regular hours for exercise, feeding, and walks can all help to make a difference. Be consistent.

In some cases, your veterinarian may be able to identify a diet that can cut down on stress. I am constantly surprised by how many behavioral problems seen at our practice could be eliminated just by a consistent schedule, regular exercise, and a nutritious diet. But many disorders are not cleared up this readily and your dog may be referred to a veterinary behaviorist.

The identification of stress in dogs, and its successful treatment, is very much in its infancy, but in the last 10 years great strides have been made. We must become keen observers of our dogs’ behavior so that problems can be identified early and dealt with swiftly. **FD**

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