

Mind Body Connection

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Recently, a male cat with a urinary tract obstruction was presented to our emergency service. After he was treated, we began the process of figuring out the underlying cause. The owner was surprised when the first diagnostic was a line of questioning about their cat's mental health. The owner indicated that a new puppy had recently been introduced to the household and inappropriate urination began shortly after that event. Eventually a urinary tract obstruction occurred.

This cat, like nearly all male cats with emergent urinary tract obstructions as well as many with cystitis, was diagnosed with Feline Urinary Tract Disease (FLUTD). A component of FLUTD is stress and nearly all patients with FLUTD have stress in their lives. Treatment of the disease is oriented toward controlling stress and enhancing the cat's living environment. FLUTD is one of many conditions and diseases in medicine that provide evidence of the "mind body connection". Sub-optimal mental health is as much to blame for conditions like FLUTD as physiologic abnormalities.

Psychoneuroimmunology, as it's known in human medicine, is the study of aspects of the mind body connection. Recent research focus has been on the effects of PTSD on the cardiovascular system, the intestinal bacterial population on brain function and the influence of stress on white blood cell function. Treatment of chronic illnesses and preventative health programs are beginning to embrace nutrition, exercise and mindful living as techniques to accompany their more directed therapies.

In animals, the mind body connection is a current topic of interest as well. Stress and its role in gastrointestinal and urinary tract health, along with the immune system, have been observed for quite some time. Many animals that are placed in stressful situations – such as new homes or shelters, will develop gastrointestinal symptoms, including lack of appetite and diarrhea, that are directly related to the effects of stress. Additionally, it's not uncommon for cats who are taken out of their usual environment to develop sneezing and upper respiratory symptoms from viral infections as result of stress. This scenario in cats is very similar to a person who develops a cold sore when stressed.

In addition to the effect of mental health on the body, the body's effect on mental health is a consideration. The intestinal bacterial population (microbiome) is thought to have a wide-ranging effect on the body, including the brain. The intestinal tract's nervous system (ENS) communicates closely with the central nervous system (CNS). This is known as the gut-brain axis. In human medicine, depression and Alzheimer's have been linked to the health of the intestinal microbiome. In animals, the gut-brain axis is a new subject of research. A component of treatment for inflammatory bowel disease is often antidepressants like Prozac.

Pain is now being studied from a perspective of mind body health. The stress of acute pain has been shown to affect wound healing, prolong poor health, and have detrimental effects on the cardiovascular system in both people and animals. Chronic pain is now understood to have effects on the patient's mental health. Anxiety and depression, as a result of hormonal changes created by chronic pain, have been documented in human patients and is believed to have similar effects on the mental health of cats and dogs.

The interaction between the brain and body is extremely complex. Understanding the connection better may eventually lead to drastic changes in how doctors manage the health of both human and animal patients in the future.