

HOT TOPIC

Nutrition and heart health



In focus

The heart is a vital organ that relies on specific nutrients and a continuous supply of energy to support and maintain a regular rate and rhythm, yet the role of nutrition in pets' cardiac health is often overlooked.

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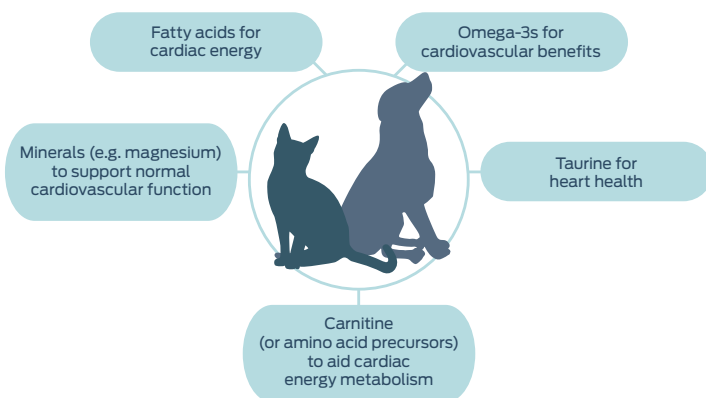
let's
takeback
the conversation.

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The heart can beat more than a billion times during the life of a dog or cat.¹

Nutrition and heart health

Feeding a complete and balanced diet helps ensure that pets obtain the nutrients that play key roles in supporting heart health.



Maintaining dogs and cats at their ideal body condition can also contribute to optimal cardiac health.

Although obesity is not a primary risk factor for developing heart disease in dogs and cats, excess weight can affect the heart.²

Studies show that overweight dogs can have:

- Higher resting heart rates and higher systolic blood pressure
- More markers of inflammation in their blood – a condition associated with heart disease
- Abnormal thickness of the heart's left ventricle

Similar data are not available for cats. However, obese cats are more than four times at greater risk of becoming diabetic, and feline diabetes has been linked with heart muscle dysfunction.³

Does dietary fat affect heart health in pets?

Long-chain fatty acids (LCFAs) are the most common fatty acids found in dietary fats and oils. In healthy hearts, LCFAs provide the primary source of energy to keep the heart beating.⁴



Omega-3 fatty acids, such as eicosapentaenoic acid (EPA), are also LCFAs and have numerous cardiac benefits⁵ that help:

- Reduce inflammation
- Stabilize arrhythmias in dogs
- Reduce blood pressure

In people, reducing saturated fat intake is often recommended because diets high in saturated fats can increase levels of 'bad' cholesterol and lead to 'blocked arteries.' However, due to genetic and metabolic differences, dogs and cats have more 'good' than 'bad' cholesterol regardless of their diet. Therefore, pets can tolerate any type of fat in their diets – although consuming excessive amounts of dietary fat puts them at risk for obesity.⁶

Why are taurine and carnitine important for the heart?

Both taurine and carnitine are nutrients that play key roles in heart health.

The amino acid taurine helps maintain heart cell function and heart muscle contractility.⁷

Carnitine helps transport long-chain fatty acids into the mitochondria of heart muscle cells for energy production.⁸

Dogs can produce enough taurine from other amino acids to satisfy their needs. Cats are unable to produce enough taurine themselves, so this essential amino acid must be obtained from their diet (from meat, shellfish or supplements). Taurine deficiencies, although rare, can occur in dogs if their diet is inadequate in the precursor amino acids used to make taurine. Taurine deficiencies can lead to heart disease in both dogs and cats.^{7,9}

Both dogs and cats can synthesize carnitine from the amino acids lysine and methionine.

Does salt play a role in heart health?

In people, the World Health Organization recommends limiting salt intake due to concerns about high blood pressure and potential effects on the heart.¹⁰ In healthy pets, however, the scientific literature shows no evidence that salt intake raises blood pressure or negatively affects cardiac health.^{11,12}

While there is no data showing a causal link between salt intake and heart disease (nor high blood pressure) in cats and dogs, current recommendations are to avoid excessive salt while not over-restricting intake.¹³



References

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