

# Why Your Pet May Need A Cool Cat Cravat Or A Heated Wheatbag

Cold-blooded animals are those whose body temperatures are regulated by their environment, and warm-blooded animals are those whose body temperatures are kept relatively constant by internal mechanisms. Along with the way their body temperatures vary, another main difference between these types of animals is that warm-blooded animals require more food. The terms "cold-blooded" and "warm-blooded" are misleading because cold-blooded animals' blood is not necessarily cold; it just varies based on the temperature of the environment. More accurate terms are "ectothermic" instead of "cold-blooded" and "endothermic" or "homeothermic" instead of "warm-blooded." Another term for ectothermic animals is "poikilotherms," which means animals that have varying body temperatures.

## Examples and Exceptions

The vast majority of mammals and birds are warm-blooded, and almost all reptiles, fish, insects, amphibians and arachnids are cold-blooded. There are some exceptions, however, and some animals that have characteristics of both types. For example, bats and mole rats are mammals, but their body temperatures can vary according to their environments, especially when they are not active. Certain insects, such as hawk moths and some bees, can raise their body temperatures by beating their wings. Some fish have internal mechanisms that help keep their brains and eyes from becoming too cold, which might impair their function.

## Food Requirements

One significant difference between warm-blooded and cold-blooded animals is that warm-blooded animals typically need three to 10 times as much food to survive, because they must create their own body heat. Accordingly, these endothermic animals must be three to 10 times as good at obtaining food, putting them on a different metabolic and evolutionary level. Ectotherms can rely on sunlight and other environmental factors to provide heat, rather than needing to create it themselves, so their bodies need less food.

## Some Advantages and Disadvantages of Each

There are several advantages to being endothermic — greater stamina, having only one set of body enzymes that works optimally at a set temperature and the ability to increase body temperature during freezing weather. A spider that is caught in a blizzard will freeze solid, but a human being has at least a chance of survival. Ectothermic animals need to maintain several sets of enzymes for their biological processes because enzymes are sensitive to temperature, but endothermic animals can maintain one set.

The most useful advantage of being endothermic and human is greater stamina. An endothermic creature can outrun a cold-blooded predator as long as it avoids the initial attack. Warm-blooded predators can outrun their ectothermic prey, and endothermic animals can forage for a longer time. Some people might say that endothermic creatures are superior because they tend to have more stamina, but they cannot move faster than cold-blooded animals for short bursts, and they starve far more easily than ectothermic creatures.

## Wheatbags and Cool Cat Cravats and Pets

Helping your pet during a hot summer's day or during a cold winter is vital to their wellbeing and survival. Always seek the appropriate advice for your particular pet from a reputable source. Wheatbags as well as Cool Cat Cravats can be used for any animal as well as for humans. Just remember to supervise during the application on your pet to make sure no chewing on the device happens or your pet starts to play with it.

**Happy Heating and Cooling!**

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