

The Ferret Circulatory System

What happens when a ferret's heart, blood and blood vessels work well, and what happens when they don't.

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The heart, blood and blood vessels all work together in the ferret's circulatory system.

The ferret's circulatory system has three main parts: the heart, the blood vessels and the blood. Its major role is to get oxygenated blood distributed to all of the organs in the ferret's little body, and to remove carbon dioxide and other waste products from the organs. In general, the ferret circulatory system is similar to other animals and humans, but there are a few little things that are unique to ferrets.

The Ferret's Heart

The heart of the ferret is a cone-shaped, muscular organ that is divided into four separate chambers. It lies in the chest cavity in the middle of the two lungs and between the sixth and eighth rib. This is farther back in the chest cavity than most animals.

The average heart of a 1 kilogram, male ferret weighs less than 1 ounce. The heart rate depends a lot on the activity level of the ferret, but a rate of 200 to 300 beats per minute is considered normal. The normal heart rate for a person is between 60 and 80 beats per minute.

The blood enters into the heart through the right atrium, which is the upper right part of the heart. From the right atrium the blood goes down into the right ventricle. The right ventricle pumps the blood to the lungs. In the lungs, the blood releases carbon dioxide and picks up oxygen. The oxygen-rich blood then goes back to the heart and enters the left atrium, which lies in the upper left part of the heart. Next the blood travels down to the left ventricle. The left ventricle pumps the oxygenated blood out to the body.

The heart is basically a specialized muscle for pumping the blood throughout the body. Unfortunately, as the ferret ages heart disease becomes more common. Ferrets are generally prone to three types of heart disease.

Dilated cardiomyopathy is the most common heart problem in ferrets. In this disease the heart muscles stretch and cause the heart to enlarge. As the cardiac muscles stretch, the heart becomes weaker. With time, the heart gets so weak that it can no longer pump the blood effectively, and congestive heart failure develops. There is no cure for dilated cardiomyopathy, but it can be treated with medications. Your veterinarian can recommend what ACE inhibitors, diuretics or muscle-contraction strengthener medications are needed.

Hypertrophic cardiomyopathy is a disease where the heart enlarges as a result of the cardiac muscle becoming thicker and bigger. This makes the space inside the heart chambers smaller, so the heart can no longer fill up with the correct amount of blood. After a time, the heart no longer pumps the blood effectively.

The third problem is heart valve disease. This disease can allow the blood "to flow backward," and the heart becomes ineffective at pumping the blood out of the heart.

Another concern regarding ferret hearts is heartworm disease. Ferrets are very susceptible to heartworm disease, even more so than dogs are. The ferret's heart is very small, so only one to two worms can cause a fatal problem. Heartworm disease can be easily prevented by using one of the many heartworm preventives. Talk to your veterinarian about which is best for your ferret.