



WINN FELINE FOUNDATION

For the Health and Well-being of All Cats

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • www.winnfelinefoundation.org

Toll Free 888-9MEOWIN (888-963-6946) • Local Phone 201-275-0624 • Fax 877-933-0939

Feline Hemotropic Mycoplasma (Feline Infectious Anemia)

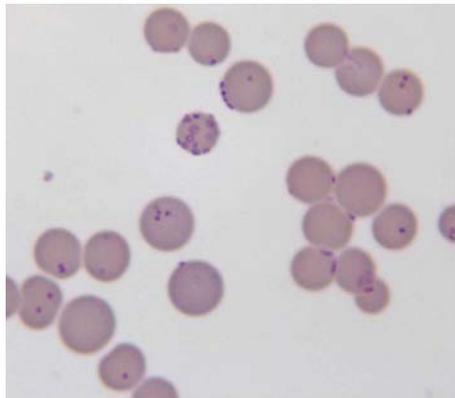
Matthew Kornya, DVM ©2016

Infection with hemotropic mycoplasma is a frequent cause of anemia in domestic cats. Mycoplasma are a class of small bacteria that are unable to replicate by themselves- they must be contained with a host cell to survive. The feline hemotropic mycoplasmas infect red blood cells and are spread between animals by bite wounds from infected cats or through flea or tick bites. Less commonly it may be transmitted by blood transfusions. Once the organisms infect a cell, they replicate until they cell breaks open, either through the replication of the bacteria or through the body's immune response. The disease caused by mycoplasma infection is sometimes called "Feline Infectious Anemia".

There are three species of mycoplasma known to infect cats: *Mycoplasma hemofelis*, *Mycoplasma hemominutum*, and *Mycoplasma turcensis*. Differentiation between these is largely academic as their treatment is identical, however it should be noted that *Mycoplasma hemominutum* is unlikely to cause disease in healthy animals and is usually only significant in the immunosuppressed (ie cat with FIV, receiving steroids or chemotherapy).

Confusingly, *Mycoplasma hemofelis* was previously known as *Hemobartonella felis* and may still be referred to as such in older texts. It is important to remember that *Mycoplasma hemofelis* is a different organism from *Mycoplasma felis* (which is an upper respiratory pathogen) and *Bartonella henselae* (which causes cat-scratch fever).

Mycoplasma hemofelis inside red blood cells (magnified 1000x)



Cats suffering from Feline Infectious Anemia classically present with a history of lethargy, lack of appetite, and pale gums and mucous membranes. They may be severely dehydrated and often have high fevers. They may be jaundiced, and often have non-specific signs of illness such as vomiting or diarrhea. Pica (eating non-food objects such as gravel or litter) is a common complaint as these cats attempt to gain additional iron. In mild cases cats experience very limited signs and go about their day-to-day life normally; in fact many of these cats may never be diagnosed. The most severe cases may require intensive care and disease may even be fatal. This disease only affects cats and is not contagious to dogs or humans.

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The Winn Feline Foundation is a non-profit organization [501(c)(3)] established by The Cat Fancier's Association.
Member Combined Federal Campaign #10321



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Diagnosis of this disease may be as simple as observing clinical signs and detecting bacteria on a blood smear. This may be more complicated in many cases, as observing bacteria does not mean they are the cause of disease, and not all cats with clinical disease have visible bacteria. More modern diagnostic techniques include Polymerase Chain Reaction testing which may detect very small amounts of bacteria, but is generally more expensive and must be done at a reference lab.

Treatment of mycoplasmosis generally involves the use of an antibiotic in combination with supportive care. Antibiotic choices are usually either a tetracycline (such as doxycycline or minocycline) or a fluoroquinolone (such as enrofloxacin or marbofloxacin) or combinations of both. Cats with low-grade disease may not require more than this. Severely affected animals often require more aggressive care such as intravenous fluids, vitamin and nutritional support, and even blood transfusions.

A major concern in mycoplasmosis is the development of a secondary immune response against red blood cells. In this situation, the body's immune system attempted to kill the mycoplasma, however accidentally attacks red blood cells instead. This results in the destruction of red blood cells that are not infected by mycoplasma, as well as infected cells. Paradoxically, these cats require immunosuppressive therapy (such as steroids, cyclosporine or others) in addition to antibiotics in order to minimize disease progression.

Truly curing a cat of mycoplasma infection is very difficult, and most protocols involve the use of long-term courses of alternating antibiotics for many months. Shorter courses of treatment generally allow cats to recover and go back to a normal life. Recurrence of clinical signs is not common, however may occur if there is immunosuppression or other concurrent disease.

The prognosis for Feline Infectious Anemia depends on the degree of clinical signs. Cats with mild signs generally recover well. More severely infected animals may have a guarded prognosis, and disease in these animals may be fatal.

While there is no vaccine against FIA, disease may be prevented simply by using regular flea control and keeping cats indoors.

Please Note: Winn Feline Foundation provides the feline health information on this site as a service to the public. Diagnosis and treatment of specific conditions should always be in consultation with one's own veterinarian. Winn Feline Foundation disclaims all warranties and liability related to the veterinary information provided on this site.

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