



Alternative Management of Chronic Herpes & URIs in Cats

Laurie Goldstein

Updated 2018

Please note that lysine has been shown to be ineffective at managing herpesvirus, and Merck Veterinary Manuals has removed it from FHV-1 management. For more, please see

<http://www.veterinarypracticenews.com/lysine-for-fhv-researchers-say-dont-bother/>

It is a 2015 meta-analysis of Lysine in feline herpes that found its use is ineffective for managing FHV-1:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4647294/>

On the other hand, lactoferrin, a component of colostrum, is effective. The piece from which this is quoted is a discussion as it relates to FIV, but it explains lactoferrin's anti-viral – and importantly – its anti-inflammatory mechanisms of action. The discussion concludes with **“In discrete studies, lactoferrin has been shown to inhibit replication of both feline herpes virus [18] and calici virus [19]; in a small in vivo study, its sister transferrin, ovotransferrin, which has a biochemical action very similar to lactoferrin's, has shown an ability to both prevent and cure feline upper respiratory infections in FIV+ cats [12].** Finally, lactoferrin has shown an ability to inhibit metastasis of a variety of forms of cancer [20] and to potentiate other cancer treatments by enhancement of T and NK cell activity [21].” <http://www.fivtherapy.com/lactoferrin.htm> The references are at the end of this piece.

REMEMBER: If you are treating an IBD cat for a URI, you MUST introduce any supplements VERY slowly; bovine lactoferrin can trigger vomiting in some cats. I use Jarrow brand: Nutricology brand is expensive, but cats are less prone to vomiting with it. Colostrum almost always triggers the cat if there is a lactose intolerance. Depending on the severity of the URI, the lactoferrin alone may resolve it.

In researching proactive methods of slowing down the progression of Chumley's FIV, the <http://www.fivtherapy.com/> website had quite a bit of information on the anti-viral properties of (Bovine) Lactoferrin and Thymus peptides.

BOVINE LACTOFERRIN

There are quite a number of both in vitro and clinical studies of Bovine Lactoferrin for various things: one of them is Feline Herpes Virus.

In fact, one was published in 2013, *Evaluation of Lysine and Lysine-Lactoferrin Association in Cats Infected by Feline Herpesvirus-1*: <http://www.medwelljournals.com/abstract/?doi=javaa.2013.181.185>

From the study abstract:

Viral shedding in oculo-conjunctival samples gradually decreased in almost all cats.
These data suggest that the association lysine-lactoferrin could be a first choice in FHV-1 infected cats for reducing clinical signs and viral shedding.

Apparently it was the lactoferrin that was effective. Here's an in vitro study from 2003, *Effects of bovine lactoferrin on in vitro replication of feline herpesvirus*:

<http://www.ncbi.nlm.nih.gov/pubmed/12950656>

For a much more complete list of references, click on the “View clinical references for this vitamin or supplement” at WebMD’s write-up on (BOVINE) Lactoferrin: <http://www.webmd.com/vitamins-supplements/ingredientmono-49-lactoferrin.aspx?activeingredientid=49&activeingredientname=lactoferrin>

A nice review piece, published in November 2014 (full article available for free) in the Journal of Infection and Chemotherapy, *Lactoferrin for prevention of common viral infections*:

<http://www.jiac-j.com/article/S1341-321X%2814%2900286-4/abstract>

An interesting article that discusses a wider view of lactoferrin, written in “plain English.” It is referenced: <http://www.naturopathic.org/content.asp?admin=y&contentid=526>

I do note that all of my cats are already on a probiotic that provides L acidophilus and strains of Bifidobacterium (among others. [Studies](#) indicate the importance of probiotics to overall immune function; it is a growing focus of research. I rotate NOW Probiotic-10, Renew Life Ultimate Flora (15bn CFU) and Nexabiotic. Update 2017: I use primarily VSL#3, dosing to 20bn CFU per cat. For more, see <http://www.rawfeedingforibdcats.org/probiotics-for-cats---why-and-which-ones.html>).

A word of caution: if your cat has a stubborn “herpes” infection and does not respond FULLY to Lactoferrin, ask your vet to have a UR (Upper Respiratory) Panel run. We are seeing more and more mycoplasma infections, and they need antibiotic treatment. Another common cause of weepy eyes is chlamydia, which also requires specific treatment.

THYMUS EXTRACT

WebMd states

Thymus extract is used for infectious diseases including recurrent respiratory infections, colds, flu, H1N1 “swine” flu, hepatitis B, hepatitis C, Epstein-Barr virus (EBV), mononucleosis, herpes and shingles, sinusitis, and AIDS/HIV. It is also used for asthma, hay fever, food allergies, cancer, rheumatoid arthritis (RA), chronic fatigue syndrome (CFS), and systemic lupus erythematosus (SLE). Other uses include maintaining white cell production in cancer patients treated with radiation or chemotherapy, and preventing the effects of aging.

The quality and potency of thymus extract products can vary greatly.

For a list of citations, please click on the “View clinical references for this vitamin or supplement” at WebMD’s write-up on Thymus Extract: <http://www.webmd.com/vitamins-supplements/ingredientmono-1009-thymus%20extract.aspx?activeingredientid=1009&activeingredientname=thymus%20extract>

The Protocol

This is the protocol I use for sneezing / goopy eyes / stuffed up cats. Bear in mind, most URIs in cats are viral and do not respond to antibiotics. I also assume they have all been exposed to herpes virus and I assume it flares with the URI. I use what I consider a very aggressive protocol due to my four FIV+ cats. This is for management of a URI ONLY – these are NOT doses for long term management. Also please note, I use a thymus glandular, not an extract, which may do nothing in this process.

Everything is sprinkled on food. I feed raw which does not have a strong flavor. Some may need to use meat baby food to hide the supplements. I list the brands I use. I purchase from amazon. These brands are not necessary, it is the amounts that matter. Bovine lactoferrin, and colostrum should be easy to obtain at any vitamin shop, health food store, or even any pharmacy.

UPDATE - JANUARY 2018. For the first time in many years, we actually stopped the URI that started to flare from spreading through the cats. We nipped it in the very first cat with runny eyes and nose! What was different? The addition of approximately 150mg of Ester-C (this specific form of C is easiest on the tummy) daily for each cat, and a high dose of vitamin D (actually a D+K supplement) daily for two weeks. (Dose was between 300 and 450iu per cat per day. Like I said – a high dose).

For Adult Cats:

1 capsule Nutricology Laktoferrin on (or mixed into) food, 3x a day. “Laktoferrin” is available from several companies. It combines lactoferrin and colostrum in one product. This (one capsule three times a day from this brand) provides 300mg lactoferrin, 750mg colostrum, and 15mg lysozyme.

Alternate option: Using separate Lactoferrin and Colostrum supplements. If I get caught without the Nutricology Laktoferrin, I always have the Jarrow Lactoferrin (250mg) on hand, and usually have a NOW 500mg colostrum supplement on hand. I will use the Jarrow Lactoferrin twice a day and the NOW colostrum twice a day, for a total of 500mg of lactoferrin and 1,000mg of colostrum. I would not advise using this dosage level longer than three to four days. And don’t be surprised to see soft stool. I use it despite that, given it is short term. I continue the lactoferrin at 250mg per day for several weeks.

1 capsule 4Life classic Transfer Factor on (or mixed into) food, 3x a day. Update 2018: I used the 4Life Transfer Factor Plus instead of the classic – 1/3 of a capsule 3x a day – for two weeks. The “Plus” has

medicinal mushrooms and zinc. I confirmed the amount of zinc doesn't approach the amount that causes toxicity. And please note this is used SHORT TERM only.

([WebMD on Transfer Factors](#). Again, references are available. A [plain English more hype-y explanation](#)).

1 capsule Nutricology Thymus glandular 2x a day, on or in food.

No need to use these brands. The amounts of the supplement are what matter.

Please note the 2018 update: I added vitamin C and a D+K supplement:

Vitamin C: I used Solgar Ester-C, the 500mg capsule and added about 1/3 of the capsule to one meal per day

Vitamin D + K: The NOW D-3 + K2, 1000iu / 45mcg capsules would work. Use 1/3 of the capsule daily for two weeks.

FOR KITTENS under 9 months old:

Use 1/2 the listed doses.

Start this protocol the moment you see symptoms of a URI flare, and keep it up for 3 days to one full week after the symptoms subside (I would say this depends on the number of cats in your home. I have 15, so I am cautious and continue this for one week post-symptoms).

NOTE: Cats with a lactose intolerance will likely have diarrhea from colostrum. You may want to use just the lactoferrin, thymus, and transfer factor rather than the "Laktoferrin."

Cats with herpes may need ongoing maintenance. The dose for adult cats is 250mg (Jarrow, 1 cap daily) lactoferrin daily. Kittens – half this dose.

For my FIV+ cats, I use one 250mg of Jarrow Lactoferrin daily, one month on, one month off. I use one capsule of Nutricology Thymus Glandular once a day in the alternate months.

When there is an upper respiratory flare-up, I start the protocol, but use the "Laktoferrin" as discussed above (with lactoferrin and colostrum) rather than continuing to use the plain lactoferrin.

Also consider 500mg of a high quality spirulina daily. Some are seeing it clear up weepy eyes when lactoferrin alone didn't do it OR if kitty doesn't tolerate lactoferrin. Please refer to:

Wu et al 2016. *The antioxidant, immunomodulatory, and anti-inflammatory activities of Spirulina: an overview*, Arch Toxicol. 2016 Aug;90(8):1817-40. doi: 10.1007/s00204-016-1744-5. Epub 2016 Jun 3. <https://www.ncbi.nlm.nih.gov/pubmed/27259333>

Spirulina also most likely has benefits in FIV. Mine get at least 500mg daily:

Ngo-Matip et al 2015. *Impact of daily supplementation of Spirulina platensis on the immune system of naïve HIV-1 patients in Cameroon: a 12-months single blind, randomized, multicenter trial*, Nutr J. 2015; 14: 70. Published online 2015 Jul 21. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4508814/>

For more information on lactoferrin and herpes / viruses:

The references from the FIVtherapy website discussion of lactoferrin as it relates to issues other than FIV:

18) Ammendolia MG, Marchetti M, Superti F. Bovine lactoferrin prevents the entry and intercellular spread of herpes simplex virus type 1 in Green Monkey Kidney cells. Antiviral Res. 2007 Dec;76(3):252-62. <http://www.ncbi.nlm.nih.gov/pubmed/17881064>

19) Addie DD, Radford A, Yam PS, Taylor DJ. Cessation of feline calicivirus shedding coincident with resolution of chronic gingivostomatitis in a cat. J Small Anim Pract. 2003 Apr;44(4):172-6. <http://www.ncbi.nlm.nih.gov/pubmed/12703869>

20) Yoo YC, Watanabe S, Watanabe R, Hata K, Shimazaki K, Azuma I. Bovine lactoferrin and Lactoferricin inhibit tumor metastasis in mice. Adv Exp Med Biol. 1998;443:285-91. <http://www.ncbi.nlm.nih.gov/pubmed/9781371>

21) Varadhachary A, Wolf JS, Petrak K, O'Malley BW Jr, Spadaro M, Curcio C, Forni G, Pericle F. Oral lactoferrin inhibits growth of established tumors and potentiates conventional chemotherapy. Int J Cancer. 2004 Sep 1;111(3):398-403. <http://www.ncbi.nlm.nih.gov/pubmed/15221967>

Other early studies – feline herpes virus and calicivirus in vitro:

There is also an in-vitro study as re: feline herpes virus that shows that lactoferrin has an “inhibitory effect on in vitro replication of FHV-1.”

2003 “Effects of bovine lactoferrin on in vitro replication of feline herpesvirus.” <https://www.ncbi.nlm.nih.gov/pubmed/12950656>

An in-vitro study indicated lactoferrin interferes with calicivirus infection:

2003 “The effect of bovine lactoferrin and lactoferricin B on the ability of feline calicivirus (a norovirus surrogate) and poliovirus to infect cell cultures.” <http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2672.2003.02071.x/pdf>

There are many studies in humans that indicate the efficacy of lactoferrin as an antiviral. Here are review pieces:

2014 "Lactoferrin for prevention of common viral infections"

<https://www.ncbi.nlm.nih.gov/pubmed/25182867>

2011 "Antiviral properties of lactoferrin--a natural immunity molecule."

<https://www.ncbi.nlm.nih.gov/pubmed/21847071>

2001 "Antiviral activities of lactoferrin"

<https://www.ncbi.nlm.nih.gov/pubmed/11675140>