

## Preventing Urinary Tract Blockages in Cats

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(To read the summary at the bottom, click [here](#))

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If a cat gets urine crystals, his or her urethra can get blocked and he or she can die (his or her bladder can explode or he or she can die from blood poisoning if he or she is unable to urinate). A vet can unblock a cat's urethra by putting a cat under general anesthetic and pushing a catheter (a plastic tube) through the urethra but after such a procedure a cat may have significant pain while urinating for several weeks and may end up reblocking. Many currently available vegitan cat foods (and some non vegitan cat foods) do not prevent urine crystals from forming so it's important to read the information on this page before deciding which vegitan cat food to feed your cat.

From October 6th to November 15th, I was in the process of perfecting a Vegecat recipe which contains Tuno (a vegitan imitation canned Tuna product) for improved flavor (I used Vegeyeast, brown rice, textured soy protein, safflower oil and Bragg's All Purpose Seasoning and I also baked this entire mixture - see [bottom of this page](#) for the exact recipe). Vegeyeast (made by the makers of Vegecat) is a special kind of yeast that is very effective in acidifying a cat's urine which in turn is useful for preventing struvite urine crystals from forming. I was feeding my food preparations to my cat Andredi and I was trying to perfect my recipe so that my cat's urine would reach the ideal pH of 6.1 to 6.3 which would help to prevent struvite crystals from forming. And I was also aiming to make a food that my cat would eagerly eat since I didn't want to make food that tastes bad for cats (or at least my cat).

I was also adding a product called Enzymes pH to the food I was feeding to my cat in order to increase the acidity of my cat's urine (Enzymes pH is available at [vegancats.com](#) and it contains digestive enzymes, vitamin C and two urinary acidifiers: DL-methionine and cranberry extract). I used the recipe at the bottom of this page with two different amounts of Enzymes pH. When I used 1.0 quarter-teaspoons of Enzymes pH per 27 grams of food and then collected my cat's urine on October 23rd, I measured the pH of his urine to be 5.77 (too acidic) and when I used 0.75 quarter-teaspoons of Enzymes pH per 27 grams of food and then collected my cat's urine on November 5th, I measured the pH of his urine to be 6.20 (a good acidity level). So it seems that using 0.75 quarter-teaspoons of Enzymes pH per 27 grams of food is a good amount to use. I was using a digital pH meter to measure the pH of the urine that I collected in plastic cups that I cut down to make them 1cm tall.

On November 15th, I ran out of the container of Vegeyeast that I was using and I started using a new container of Vegeyeast. But this new Vegeyeast smelled very unpleasant (it seemed to smell bacteria-like) and I was concerned about using this Vegeyeast. (I also started using a new container of Vegecat pH at this time which had some hard clumps in it that I had to break up with a knife). I sent an e-mail to HOANA (the makers of Vegeyeast) about this and was told by James Peden that he thought that the manufacturers that they deal with made a mistake in one of their batches and stored the Vegeyeast next to some chemicals and that the smell of these chemicals got absorbed by the Vegeyeast. I decided to order some Vegeyeast from [vegancats.com](#) on November 18th and asked for it to be shipped by air mail but it still hasn't arrived. Last week I also ordered some Vegeyeast from

HOANA to be sent by express mail but they accidentally shipped it by regular air mail. I tried using this smelly Vegeyeast from November 15th to 18th and then noticed that my cat's urine pH went up to 6.71 by November 17th.

So I switched to a very old container of non-smelly Vegeyeast (bought in August of 2002) that I had sitting in my cupboard and I used this until November 24th but on November 24th I noticed that his pH was even higher at 7.35. I suspected that the oldness of the Vegeyeast made it so it wasn't very acidifying so I switched back to using the smelly Vegeyeast at this point along with 1.0 quarter-teaspoons of Enzymes pH per 27 grams of food instead of 0.75 quarter-teaspoons. I then measured Andredi's urine pH to be 7.69 on December 2nd which is even worse than before (possibly Andredi was getting a bacteria collection in his urine which happens when crystals start forming and the bacteria often produce alkaline substances which increase the pH even more). At this point I started noticing that Andredi was straining a bit to pee which means that he definitely did have crystals.

I increased the amount of Enzymes pH in Andredi's food to 1.25 quarter-teaspoons per 27 grams of food on December 2nd and I increased the amount of Enzymes pH to 1.33 quarter-teaspoons on December 3rd. I noticed that Andredi really was not eager to eat his food with so much Enzymes pH on it and he often would only eat a quarter to half of the food that I gave him. I also noticed that he was sleeping and resting more which was probably because his urine crystals were causing major problems with his body. I figured that he was going to get a full urinary blockage if I didn't get him onto a different diet really fast and I knew this would be very stressful for him and that he could be seriously harmed if this happened.

I know that it is not a simply operation to get a cat unblocked if their urethra totally blocks up. If this happens they have to be rushed to a vet immediately or they can die from blood poisoning (since their body can't eliminate toxins very well) or from having their bladder explode. I also know that after a cat goes through a catheterization to get their urethra unblocked that they then have scar tissue in their urethra and have great pain and difficulty urinating for several weeks afterwards (during which time they have a good chance of blocking up again). I couldn't stand the thought of putting my cat through this and having to use up huge amounts of my time trying to monitor Andredi and be ready to take him to the vet. So I decided to temporarily start buying him some flesh-based foods again until I got some new Vegeyeast. It sickens me to have to buy flesh-based foods but I feel like I'm left with pretty much no choice.

Anyway, let's get back to the Vegecat preparations that I was making for Andredi before November 15th. As I mentioned above, I was adding some Enzymes pH to his food to make his urine more acidic. I was also adding some Tuno to his food (to make his food even tastier even though my cat liked the taste of the food just fine without the added Tuno). Andredi really loved this food and quickly gobbled it all up but I have never found a way to get him to enjoy the taste of any of the Evolution kibble cat food versions that I tried or Vegecat preparations without Tuno. Vegecat, Enzymes pH and Tuno can all be purchased at [www.vegancats.com](http://www.vegancats.com) and you can also purchase Tuno at [vegefood.com](http://vegefood.com) (where you can [buy it online](#) or you can [find a store to buy it](#) - the list of stores is incomplete so you may want to try phoning a store in a nearby city, state or province and asking if there is a store near you, i.e. there is one store in Abbotsford, BC but this is not on the list)

It seems that there are currently only three primary companies that make vegan cat food: [Harbingers of a New Age](#) (the makers of Vegecat, Vegecat pH and Vegekit), [Evolution](#) and [Veganpet](#). The first two of these companies are in the US and the last company is in Australia. There is also [wow-bow.com](http://wow-bow.com)

in New York which bakes Vegecat kibble and there is [vegancats.com](http://vegancats.com) which sells Vegecat and Evolution food. I have not tried any Veganpet cat food or heard anything about this food but it may be expensive to get this food shipped from Australia unless you live in or near Australia.

I fed Evolution kibble to a cat that I had by the name of Nicholas between July, 2000 and December, 2002 after which I tried some different foods. I found that this food did not make Nicholas' urine sufficiently acidic so I had to add about 0.75 quarter-teaspoons of Enzymes pH per 45 grams of kibble to keep his urine sufficiently acidic (before I figured this out he had a couple bladder blockages which was very stressful for him and for me). Evolution then suddenly started doing constant changes to their kibble cat food formula starting around November of last year. The new food that Evolution initially started making was even worse at keeping Nicholas's urine sufficiently acidic and Nicholas really didn't like the taste of the new food (the old formula tasted fairly good to Nicholas but he wasn't crazy about it). Evolution decided to start regularly making changes to it's cat food kibble formula without announcing the changes on it's website or even printing the correct ingredients on it's packaging (it was using old ingredient lists after switching to new formulas). Also, [vegancats.com](http://vegancats.com) did not even bother updating their website with the out-of-date ingredients list for Evolution cat food kibble and at one point contained an ingredients list that had not been used for over 6 months. From the information on the [vegancats.com](http://vegancats.com) website it seems that Evolution has now decided to try to make the formula that it was using just before November of last year when it started making all sorts of changes. This older formula is now called the "original formula" and Evolution is also making a "vegan cheese formula" (which I imagine may be getting modified quite a bit over time). I noticed on the [vegpets.com](http://vegpets.com) website that one woman posted a message stating that she used to feed her cats the Evolution kibble that was made before November of last year but her cats really dislike the taste of the newer Evolution formulas and they also dislike the taste of the formula that Evolution is calling the "original formula" (Evolution says its the same as the old formula except it is being made by a different manufacturer but it might be wise to question this statement, especially given Evolution's lack of concern over details like giving out correct ingredient lists). The message on [vegpets.com](http://vegpets.com) is under the subject "Evolution kibble" and it is written by [betycrooked](#) (click [here](#) to see the webpage that contains this message - it's posted on October 18th). It seems like Evolution is not a stable producer of vegetan cat food so it might be a good idea not to be too dependent on their food. It also seems like Evolution is not very concerned about making cat food that will prevent urine crystals from forming.

Vegecat food seems to have a problem in that it doesn't taste very good to cats all by itself. But by adding some Tuno to one of the recipes and baking the mixture, I have managed to create a food that my cat loves. Also, for each Vegecat recipe, a person can use different ingredients which have different amounts of urine acidification capability so it's not possible to determine just by looking at the recipes what should be used to make sure a cat's urine reaches the right acidity (for instance: in the recipes you can use nutritional yeast or you can use Vegeyeast which contains much more urinary acidifiers, and you can use Vegecat or you can use Vegecat-pH which contains much more urinary acidifiers). This is why I was adjusting the amounts of certain ingredients in order to make a food that would make a cat's urine reach the ideal acidity.

The recipe below contains Tuno which is not part of the regular recipes given out by Harbingers of a New Age (HOANA). Since I am adding some Tuno to the recipe, I have decided to also add some extra Vegecat to try to maintain a good balance of nutrients. **I am not sure if the recipe below meets the standard nutrient requirements for cats but I suspect that it does since it is quite similar to a recipe given out by HOANA except it contains some Tuno and it uses Bragg's All Purpose**

**Seasoning instead of Soy Sauce (at a level that contains the same amount of Sodium). It is also baked after mixing the ingredients instead of being simply mixed together.** Here is the recipe that I am currently using for making food for my cat:

t = teaspoon, T = Tablespoon, g = gram

\* You will need a scale that is accurate to 1 gram in order to measure out the amount of food to use since you will need to use different amounts of Enzymes pH depending on the amount of food being fed

\* You will also need a 1cup measuring cup and some measuring spoons (0.25t, 0.5t, 1t, 1T)

\* You will also need two 11"x17" metal baking sheets

\* You will also need a small container (about 0.25 to 1 cup) that can be closed (like a small tupperware container).

\* Bragg's All Purpose Seasoning and Textured Soy Protein can be found at many health food stores.

**Current Recipe (about 6.6 days of food for an 11 pound cat)**

(Makes about 455 grams of food)

(should probably yield a urine pH around 6.2)

3 cups of cooked long-grain brown rice

2 cups of Textured Soy Protein mixed with 1.75 cups of boiling water

(5T + 1t) Vegeyeast

2t nutritional yeast

1t Vegecat

(2T + 2t) Vegecat-pH

1.9t Bragg's All Purpose Seasoning

(2T + 2t) Safflower oil

200 g (about 0.75 cup) blended Tuno (or about 1 cup unblended)

[The " symbol stands for the unit inches in the following instructions]

\* Mix all of the above ingredients in a bowl

\* Use a food processor to blend all of these ingredients together

(I put one third of the mixture in my 5 cup food processor at a time)

\* Oil two 11"x17" metal baking sheet with 0.5t of Safflower oil

\* Put four blobs of the blended mixture onto one baking sheet (use about half of the mixture to make the four blobs). Make the blobs oval in shape so that the longer part of the oval is parallel to the wider edge of the baking sheet (this makes it easier to roll the blobs into thin sheets). Use a spoon to make the blobs fairly oval in shape. Put 0.25t of Safflower oil on a wooden roller. Roll the blobs into sheets that are about 7mm (1/4") thick. Try to keep the blobs separated by about 2cm (about 3/4") from each other and try to keep them about 1cm (3/8") away from the edge of the baking sheet. Use a spoon to do the final bit of flattening and to move some parts of the blob to other areas in order to keep the blobs separated from each other and from the edge.

\* Preheat your oven to 300F

\* Using the rest of the mixture, put four blobs onto the other baking sheet and do the same procedure as with the first baking sheet.

\* Place both baking sheets into the oven. If your oven has a lever that can be closed to make an extra tight seal on the oven then make sure that you don't close this lever (otherwise moisture will not be able to escape from the oven and the food won't dry out well).

\* After 30 minutes, open the oven door for 30 seconds to let some moisture out.

\* After 40 minutes, remove the baking sheets and flip the patties over using a pancake flipper or simply

a thin smooth plastic ruler (that has been washed). Then cut each piece in half and then place the baking sheets back into the oven.

\* After 25 minutes, open the oven door for 30 seconds to let some moisture out.

\* After 15 minutes, remove the baking sheets and cut up all the patties into small pieces about 2cm by 2cm (0.75" x 0.75") in size. Then place the spread out pieces that are still on the baking sheets back into the oven.

\* After 20 minutes remove the baking sheets and put the pieces into a ziplock bag. Then put the ziplock bag into the fridge.

[Total baking time: 2 hours and 10 minutes]

**How to deal with storing the Tuno:** I have noticed that Tuno goes bad very quickly in the fridge (it seems to take about 5 to 7 days in my fridge). What I do is I open a can of Tuno and I blend up the whole can in my food processor. The blended Tuno is much easier to spread on top of the final food product (which is what I do as described below). I then use whatever Tuno I need to use for a recipe and then I place about 5 or 6 blobs of Tuno (each containing about 1 tablespoon of Tuno) into separate areas in a large wide bowl and then cover this up with a plastic sheet and put this in the freezer. I keep one of these blobs in the fridge at a time and use the blob in the fridge for spreading Tuno on top of the food. I put the rest of the Tuno that was not used in the recipe or in making blobs and I put that in a bowl, cover the bowl with plastic and put this in the freezer for using with the next batches of food that I make.

**To make a meal:** (qt = quarter-teaspoon)

\* Using a digital scale accurate to 1 gram measure out 27 grams of food (see the [table](#) below if you want to use less or more food).

\* Take two pieces of the dry food and put it on a small plate and put the rest of the food on another plate.

\* Add some water to the large plate full of food. Mix the water and food using your fingers. Then drain off the excess water.

\* Place about 1.5 tablespoons of Enzymes pH in a small tupperware container (you can then spoon out the Enzymes pH from this container and if you get small amounts of water or bacteria into this container it will not destroy a full container of Enzymes pH).

\* Measure out 0.75 qt of Enzymes pH powder. Sprinkle this powder on all of the food. Try to sprinkle the powder as evenly as you can. Using a spoon, stir around the large plateful of food in order to spread around the Enzymes pH.

\* Measure out 0.75 qt of blended Tuno (when you open a can of Tuno, just place the entire contents into a food processor and blend it up and then put it back into the Tuno can. Then place about 1.5 tablespoons of Tuno into a bowl and use the Tuno from this bowl to get the 0.75 qt of blended Tuno. Make sure to store this bowl in a plastic bag or under a sheet of plastic inside your fridge). Spread the blended Tuno as evenly as you can on the food (including the two pieces of food on the one plate and the rest of the food on the other plate).

\* For the first meal of the day, feed the two dry pieces of food as an appetizer (for cleaning teeth) and then feed the rest of the food. For the last meal of the day, feed the two dry pieces of food as a desert. For in between meals during the day, do not use any dry pieces of food.

\* If there is any excess food after a meal then just throw this food away or compost it. Enzymes pH powder dissolves food so any food that has been sitting in water and Enzymes pH for a while (say, over a half hour) will have a significantly different nutrient composition than food that has only been sitting in water and Enzymes pH for a short time.

**Table to figure out amount of Enzymes pH and Tuno to put on food:**

Amount of dry food (grams)	Amount of Enzymes pH (qt)	Amount of Tuno to spread on (qt)
24	0.67	0.67
27	0.75	0.75
30	0.83	0.83
33	0.92	0.92
36	1.00	1.00
39	1.08	1.08
42	1.17	1.17

I have found that my cat who weighs about 11 pounds needs to eat about 70 to 90 grams of food per day. So an estimate as to how much food your cat will need can be found by multiply your cat's weight by 7 (this will give the amount of food needed per day in grams). This estimate would yield a requirement of 77 (11 times 7) grams per day for my cat. I usually feed my cat 3 meals at 27 grams each or 2 meals at 36 grams (or 39 grams) each and this seems to work great.

If you try out this recipe or a similar recipe, please send ARO an e-mail by clicking [here](#) and tell us how it worked (we are interested in hearing good OR bad responses). We would love to know about your experiences with feeding your cat any recipe published by ARO and we will let others know about good AND bad experiences that they experience (hopefully there won't be many bad experiences but if there are then we feel that people have the right to know about this).

As I perfect my recipe, I will update this webpage so please check back here in the future.