

Research Proposal

OPTIMAL DIET OPTIONS FOR PREVENTING AND MANAGING TYPE 2 FELINE DIABETES

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INTRODUCTION

Every cat owner wants the best for their feline friend. Whether a cat is adopted as a young kitten or as a rescued senior in need of a home, they immediately become a part of the family. Loving owners do their best to keep them happy, safe and healthy.

One of the most common diseases cats are susceptible to as they grow older is type 2 feline diabetes, accounting for approximately 90% of all feline diabetes cases (Gottlieb & Rand, 2018, *Diet*). According to the NCBI, there are several factors may put a cat a risk of developing type 2 diabetes (*see fig. 1*).

Type 2 Feline Diabetes Risk Factors		
Risk factor	Highest risk	Owner controlled
Age	Senior cats	No
Gender	Male cats	No
Bodyweight	Obesity	Yes
Indoor/ouotdoor	Indoor	*
Activity level	Low activity	*
Breed	Susceptible breeds (varied)	-
Medication	Long-acting or repeated steroid or megestrol acetate administration	-

(*) some owner control

(-) minimal or no owner control

Source Adapted from (Gottlieb & Rand 2018, *Diabetes in cats*).

FIGURE 1 Type 2 Feline Diabetes Risk Factors

Of those risk factors that cat owners can control, obesity poses the highest risk to their cat, with overweight cats being 4-6 times more likely to develop type 2 diabetes than their ideal body weight counterparts (Gottlieb & Rand 2018, *Diet*).

Cats, unlike dogs, are obligate carnivores (or a *true carnivore*). According to Dr. Becker (2016), “True carnivores lack the physiology required for the efficient digestion of vegetable matter,” and “The domestic cat is a prime example of an obligate carnivore.”

In the wild, the naturally sourced diets of feral domestic cats consists primarily of small animals, like mice, rats and birds. Domestic cats’ digestive systems have evolved to require a diet that is very low in carbohydrates, high in protein, and with moderate fat. A well-planned diet that meets the unique nutritional needs of a domestic cat will give it the best chance to survive and thrive in the wild as well as in a comfortable, loving home.

Every cat owner who has visited a pet store understands how difficult it can be to narrow down their food options to a few that are both healthy and that their cat will reliably eat. For most owners, cost is a significant factor as well. But with the knowledge that cats have such specific dietary requirements, how can a concerned owner know which types and brands of foods are best?

PROPOSED TASKS & SCOPE

The goal of this research is to identify both the specific types and brands of foods commonly available to cat owners that are most suited to ensuring their pet maintains a healthy weight at all ages. The following four tasks will be performed to accomplish this goal.

Task 1: Research type 2 feline diabetes and its causes

I’ve already taken the first steps to understanding type 2 feline diabetes. The research performed so far has enlightened me to the risk factors for developing the disease, and the important role owners play in their cat’s long-term health. I’ve used what I’ve learned thus far to better understand my cat’s symptoms, as well as communicate more effectively with my veterinarian.

Task 2: Establish the role diet plays and the proper nutritional guidelines

One of the most important ways that a cat owner can contribute to the long-term health of their pet is by providing a diet that meets their unique needs. Further research into proper nutrition will allow us to formulate a plan to help other cat owners mitigate the potential for their pet to acquire the disease.

Task 3: Evaluate the data and research commonly available types and brands of foods to determine the best options for owners

There are so many options available to cat owners that it can be overwhelming trying to determine what is best. Most owners, like myself, rely on brands that we believe to be high quality to provide for the nutritional needs of our cats. However, there is evidence to show that some common, inexpensive grocery store brands, like Fancy Feast (Pierson, 2016, *pp.* 6), may be as good, if not better than some other more expensive options.

To determine the best overall options, deep nutritional analysis on the various options available is required. The data will then be used to narrow down the number of “high quality” options to only those that actually meet the dietary needs of domestic cats.

Task 4: Analyze our findings and prepare a recommendations report:

Finally, I will draft a report, explaining in plain terms the risk factors that cats face for acquiring type 2 feline diabetes. The report will include:

- a. an explanation of the specific dietary needs of domestic cats.
- b. recommendations to meet those needs based on commonly available foods, including essential nutritional information and approximate cost.

SCHEDULE

Research on this project will begin on the Monday following a signed contractual agreement. The final report with recommendations will be submitted for review on Thursday of the same week by end of day. See Figure 2 for the planned schedule.

Figure 2 Research Project Schedule

Number	Task	M	T	W	T
1	Perform research				
2	Analyze nutrition content				
3	Formulate recommendations				
4	Prepare report				

FIGURE 2 **Research Project Schedule**

COST

The expected cost to perform the research outlined in this proposal and provide a full report with recommendations is \$1,600.

CONCLUSION

Cat owners are, knowingly or unknowingly, facing a growingly complex problem when it comes to keeping their feline friends healthy. Although many food manufacturers appear to be offering high-quality foods, they may, in-fact, be causing cats to unnecessarily gain weight, putting them at risk of developing type 2 diabetes.

Type 2 feline diabetes is a disease with a range of risk factors. For cat owners, the most important risk factor within their control, is ensuring their cat maintains a healthy weight. The goal of this research is to provide cat owners with specific, straightforward recommendations for optimizing their cat's diet.

Accomplishing this goal will require researching and evaluating information and data from a variety of sources. The research will identify the types and brands of foods currently available to cat owners that are specifically designed to meet the unique needs of a cat's diet. Once the best food options are identified, the information will be summarized to make it easy for owners to understand, so they can provide their cats with the highest quality diet available to them.

RESOURCES

Gottlieb, S., Rand, J. (2018). *Managing Feline Diabetes: Current Perspectives*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6053045/>

Becker, Dr. (2016). Got Cats and Dogs? Do This in a Pinch, But Don't Make a Habit of It. Retrieved from [http://\(https://healthypets.mercola.com/sites/healthypets/archive/2016/01/04/dog-cat-species-appropriate-diets.aspx###targetText=Cats%20are%20obligate%20carnivores%2C%20whereas.definition%20of%20an%20obligate%20carnivore%3A&targetText=Dogs%20are%20scavenging%2C%20or%20facultative.plant%20material%20alone%20if%20necessary.\)](http://(https://healthypets.mercola.com/sites/healthypets/archive/2016/01/04/dog-cat-species-appropriate-diets.aspx###targetText=Cats%20are%20obligate%20carnivores%2C%20whereas.definition%20of%20an%20obligate%20carnivore%3A&targetText=Dogs%20are%20scavenging%2C%20or%20facultative.plant%20material%20alone%20if%20necessary.))

Pierson, L.A. (2016). Feline Diabetes. Retrieved from <https://catinfo.org/feline-diabetes/>