

FELINE HYPERTHYROID TREATMENT CENTER

Treating Hyperthyroid Cats Since 1992

www.felinehtc.com

Fall 2011

Important News About Hill's y/d®

Hill's is launching a new diet, y/d®, that can reduce thyroid hormone production in some hyperthyroid cats. It achieves this by dramatically restricting iodine, to a level of less than or equal to .32 ppm, so that the thyroid gland has less iodine with which to produce thyroxine.

This diet may prove to be an option for older hyperthyroid cats whose owners cannot afford the upfront cost of I131, who can't be pilled with methimazole, or have side effects to it.

Limitations, considerations, questions

For most hyperthyroid cats, important questions and considerations remain unanswered. We believe it is important to consider that y/d®:

Does not restore thyroid health

According to Mark Peterson, DVM, DACVIM, the preeminent authority in feline hyperthyroidism, "it only removes the iodine from the food so that neither adenomatous nor normal thyroid tissue can function normally to make thyroid hormone. The thyroid pathology doesn't change; the thyroid adenoma or adenocarcinoma remains. Only radioiodine or surgery will destroy or remove the thyroid tumors and allow the residual normal thyroid cells to regain normal function (and restore normal thyroid health)". He adds, "I wouldn't recommend using y/d unless the cat is intolerant of methimazole or the owner doesn't want or can't afford radioiodine or surgery".

Is ultimately more costly than other treatment options

Food Costs:

y/d costs twice as much as Hill's maintenance, about four times as much as Friskies

The Hill's-recommended retail price for a case of y/d (24 cans) is \$50.00. Each can contains 188 kcal, which may not be enough calories in a day for one medium-sized cachectic cat to rebuild. So, let's say, about 1 ¼ cans (235 kcal) are needed per day=\$2.60/day, = \$78.00/mo, = \$937-\$1000.00/year for one cat. If multiple cats in one house eat the food as well, the cost is compounded.

Brand (5.5oz Can)	kcal/Can	Can Price	Case Price
Hill's y/d	188	\$2.08	\$50.00
Friskies Mariner's Catch	169	\$0.53	\$12.72
Science Diet Adult Savory Chicken	175	\$1.10	\$24.40
Nutro Max Turkey & Giblets	174	\$0.99	\$21.76

Monitoring costs (labwork, exams):

Lab monitoring of the thyroid disease continues x life if managed with y/d® or with methimazole.

Hill's advises checking the blood work 4 and 8 weeks after initiating y/d, and continued monitoring of thyroid function every 6 months thereafter x life.

The cost to manage a hyperthyroid cat on y/d for the first year easily exceeds \$1500-1750 and requires monitoring x life. In our experience, this approximates the cost of maintaining a hyperthyroid cat on methimazole.

At FHTC, I-131 treatment is \$850 and the consultation fee is \$75. We advise monitoring the thyroid for 2 rechecks to ascertain that the disease has been eliminated. Once the thyroid gland is **normal** again the client can resume usual veterinary care and feeding dictated by the cat's age rather than a continuing, progressive disease.

The upfront cost of I-131 is more, but eliminating the thyroid disease proves to be less costly in the long run, about 18 months.

Obviously, the client still has food costs for normal cats post I131, but can feed quality foods for half or less the cost of y/d®, which translates into hundreds of dollars of savings per year per cat.

Now that we're diagnosing hyperthyroidism in cats at younger ages, often less than 11 years old (some as young as 4-7 years old), food costs and lab monitoring add up if the disease is not cured.

May not be an ideal diet for cats

The dry y/d® contains no meat. Cats are obligate carnivores, raising the question, is this adequate for their needs?

Per Hill's, the protein is supplied by corn gluten meal and eggs. Animal protein apparently contains too much iodine. The canned formula includes more meat (somehow iodine depleted?), so would be the better choice of the two. Hill's compares the protein content of y/d® to that in g/d®, which is moderately protein-restricted. It is not likely to provide enough protein for thin cats recovering from hyperthyroid malnutrition, and not low enough for cats in later stages of renal failure. We do not recommend protein-restricting debilitated carnivores unless they are in moderately azotemic renal failure.

Is iodine deficient

Iodine is a required nutrient for a reason. We do not know what impact iodine deficiency will have long term upon either normal or hyperthyroid cats.

"It is clear that the long-term consequences of feeding this iodine deficient diet are not known at this time. If this diet were fed exclusively to normal cats, I would expect circulating T4 and T3 to fall and serum TSH to increase. This would induce thyroid hyperplasia and goiter, the classic changes associated with long-term iodine deficiency. No one is

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INSIDE: Hill's y/d® Diet: Important Criteria/Facts to Consider When Selecting A Treatment Option

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debating that issue. In addition, it has long been known that active iodide uptake and accumulation also occurs in a variety of tissues other than the thyroid gland. **The other tissues that actively accumulate iodine include the salivary glands, gastric mucosa, mammary gland, choroid plexus, and the ciliary body of the eye.** In humans, iodine deficiency has been reported as a risk factor for both gastric and breast cancer (*Adv Clin Path* 2000; 4:11). Iodine is also reported to function as a local antioxidant and may have a role in immune function. These data call into question the view that the thyroid is the only organ that needs iodine. Again, we don't know if the same is true for cats, but we cannot assume that there will not be adverse effects associated with the chronic use of this low iodine diet". Mark Peterson, DVM, DACVIM

May be impractical in a multiple cat household

y/d® cannot be fed exclusively to normal cats.

y/d® must be fed exclusively to the hyperthyroid cat in order to achieve significant lowering of thyroid hormone levels. Even minute levels of iodine from other sources (table food? treats? pill pockets?) can diminish the effectiveness of the diet.

Therefore, feedings for cats in a multiple cat household should be separate.

Hill's® allows that normal cats may eat y/d® if supplemented with maintenance cats foods. Even so, feeding y/d® to an entire household could be cost prohibitive, increasing the food cost by hundreds of dollars per cat per year.

May require more investigation

Hill's studied 9 cats for 2-3 years. These were not cats with profound clinical distress and emaciation as are many of the cats we see in general practice. It's difficult to assess the significance of these findings in such a small population, over a short span of time, in a controlled setting, for this physiologically complex endocrinopathy.

Does not address the question of thyrotoxic heart disease

Even in cats that have relatively consistent hormonal control when on methimazole, the hypertrophic cardiomyopathy progresses and the hypertension is still often difficult to regulate.

"I have had a few cases where even though the post pill T4 was <2.5 on methimazole, the hyperthyroid heart disease kept progressing (to the point of heart failure)... but did stabilize when I131 was administered." Sherri Wilson, DVM, DACVIM

Does a decrease in hormone production alone prevent or delay the progression of cardiovascular disease in hyperthyroid cats with intact adenomas/adc's? These cardiovascular issues have yet to be investigated in the Hill's y/d study cats.

Is no better for the kidneys

Any treatment that reduces thyroid hormone levels reduces the glomerular filtration rate (to normal) and can result in "unmasking" of preexisting renal insufficiency. Hill's® y/d is no exception.

Summary

We agree that y/d may be an option for cats that aren't good candidates for I-131 or can't tolerate methimazole. Some clients might think it's an "easier fix" but the long-term effects of feeding this diet exclusively have not been studied. There are too many unknowns to consider it the safest management option. Minimally, clients need to be fully informed before simply instituting y/d® dietary management.

Eliminating the thyroid disease with I-131 is still the most effective, safest, and ultimately least costly therapy for most cats.



Flagher, DM

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To receive future information on feline hyperthyroidism and related topics please email your email address to (add chosen address here).