bark&whiskers

<u>Cat Tips</u>

How to Guide Your Cat Back to a Slim Figure

Discover safe and vet-approved strategies for reducing your feline's weight and boosting their health, vitality and happiness.

Analysis by <u>Dr. Karen Shaw Becker</u>

STORY AT-A-GLANCE

- Estimates are that 61% of cats in the U.S. are overweight or obese; obesity is both a primary disease and the root cause of many other debilitating diseases
- Researchers recently published a study in which they looked at the effect of overeating and weight gain on cats' GI transit time and fecal microbiota, and learned that as cats ate more and gained weight, GI transit time was reduced, and so was digestive efficiency
- The study co-authors observed that when the cat's body gets less food, it is more efficient in extracting nutrients, but when the amount of food increases, it passes through the digestive system faster and fewer nutrients are extracted in the process
- To help cats lose weight, they should be fed a portion-controlled, nutritionally complete, fresh, meat-based diet formulated for less active cats, offered limited treats, and encouraged to engage in daily physical exercise

According to the Association for Pet Obesity Prevention (APOP), in 2022 veterinary professionals reported that 28% of cats were overweight and another 33% were obese.¹ This wasn't always the case, but the number of too-heavy felines has been steadily increasing in recent years.

Overweight/obesity is both a primary disease and the root cause of many other diseases that develop as the result of too much weight, including:

- Diabetes
- Hypertension
- Hypothyroidism (rare)
- Kidney disease

• <u>Arthritis</u>

You can add to this list a significant reduction in the quantity and quality of your overweight kitty's life. Sadly, too few pet parents understand the consequences of letting their furry family member get fat. I find it hard to believe most would continue to overfeed, feed the wrong foods, and under-exercise their companion animals if they realized they were destroying their pet's health.

Free-Fed Cats Will Happily Overeat

Not long ago, researchers at the University of Illinois Urbana-Champaign evaluated the effects of overfeeding and weight gain on the gastrointestinal (GI) transit time and fecal microbiota of cats. Their goal was to better understand the metabolic and GI changes cats face when they gain too much weight, with an eye toward future prevention and treatment plans. Their study results were published in the Journal of Animal Science.²

The study involved 11 lean spayed female cats. After establishing a baseline with measured portions of a standard commercial kibble for 2 weeks, the cats were allowed to eat as much as they wanted of that food for the next 18 weeks.

Once the cats were able to free feed, they immediately began eating more and gaining weight. At the beginning of the study, their average body condition score (BCS) was 5.41 on a 9-point scale. At the end, it had increased to 8.27, corresponding to being 30% overweight. BCS is equivalent to body mass index (BMI) for humans, and 6 or above is considered overweight, according to study co-author Kelly Swanson, professor in the Department of Animal Sciences.

Unlike dogs, cats are only **<u>semi-domesticated</u>**, so it's important to keep the behavior of their wild cousins in mind. Cats who live outdoors spend most of their awake time hunting and eating several small meals each day. When indoor cats "play" (our interpretation), they're actually hunting.

Cats who are free fed become grazers, and grazers typically don't play. This goes against their feline nature and creates significant metabolic stress. With no reason to play (hunt), they grow overweight or obese. (In addition, in my experience, they're also deprived of the mental stimulation provided by playing/hunting, which can result in behavioral problems.)

In addition, kibble, which is the most popular type of food that won't spoil quickly at room temperature and is therefore the free feeding food of choice, isn't biologically appropriate for cats. As **obligate (strict) carnivores**, they thrive on fresh raw or gently cooked animal meat, which unlike carb-heavy kibble, is very low in starch and loaded with moisture. Wild cats get most of their hydration from the prey animals they hunt and eat. Cats should not eat a lifetime of dehydrated food.

Overeating Affects Feline Digestion and Microbiome

The researchers measured the cats' apparent total tract digestibility (ATTD), GI transit time (GTT), blood hormones, serum metabolites, hematology, fecal microbiota populations, and their voluntary physical activity. Blood and feces samples were collected, and physical activity monitored at the start of the experiment and again at 6, 12, and 18

The researchers observed that total tract digestibility of dry matter, organic matter, crude protein, fat, and gross energy declined over the 18 weeks as the cats' weight increased. Fecal bacteria also changed for 16 bacteria types, including Bifidobacterium, Collinsella, Erysipelatoclostridium.

"We found that as cats ate more and gained weight, gastrointestinal transit time was reduced, and so was digestive efficiency. When the body gets less food, it will be more efficient in extracting nutrients. But when the amount of food increases, it passes through the digestive system faster and fewer nutrients are extracted in the process," Swanson explained.³

Interestingly, the cats' levels of Bifidobacterium, which has antimicrobial activity, inhibits pathogens, and stimulates the immune system, increased, while Collinsella, which degrades fiber and has been linked to pro-inflammatory diseases, decreased. As Swanson explained, these results are the reverse of what has been measured in overweight humans, which suggests their association to weight gain is complex.

"The change in the gastrointestinal transit time was a novel finding and a potential reason for the change in fecal microbiota. Future studies should consider measuring transit time to better explain modifications to the microbiome of pets," he added.

Unsurprisingly, the more the cats ate, the more they pooped. Fecal pH decreased, meaning their poop became more acidic. Per Swanson:

"In humans, a low fecal pH indicates poor absorption of carbohydrates and fat. Our findings correlate with this, as reduced fecal pH aligned with higher food intake and reduced digestibility."

No Change in the Cats' Activity Level Was Reported

The cats' activity levels were measured using monitors attached to their collars. They were housed as a group and were able to interact with each other and play with toys, except on stool sample collection days.

"We expected that weight gain might lead to decreased physical activity, but we did not observe any consistent changes in activity level. However, this could vary with individual cats and their environment, and how much their owners interact with them," Swanson stated.

After the 18-week study, the 11 cats were put on a restricted-feeding diet that helped them return to normal weight.

My Top Recommendations for Cat Weight Loss

• Feed fresh, meat-based food — Cats need a thoughtfully-formulated diet high in animal protein and moisture, with low to no grain or starch content. A nutritionally complete, meat-based fresh food diet formulated specifically for less active cats is the best choice for pets who need to lose weight. It's important to adequately nourish your cat's body as weight loss occurs, making sure his requirements for key amino acids, essential fatty acids and other nutrients are met, which doesn't happen by simply feeding less of your current food.

The key to healthy weight loss is to meet your kitty's nutritional requirements through a balanced diet but

feed less calories (not less micronutrients), which forces his body to burn fat stores. The first step is to transition him to a diet specifically formulated for less active or sedentary cats. Unfortunately, AAFCO requires manufacturers to formulate cat foods for only one activity level: highly active. Most indoor cats are not highly active, and that's the root of the activity-and-calorie mismatch.

This means all AAFCO-approved cat foods are formulated for highly active cats unless otherwise specified, which is great if you have a barn cat in a cold climate, but not so good if you have an indoor cat that rarely exercises. The result of this antiquated formulation requirement is that if you feed less food than what is recommended on the bag, your cat will be protein deficient, and if you feed the amount recommended on the bag your cat could consume more than 3 times the number of calories needed (hence the feline obesity

epidemic).

Until AAFCO updates cat food formulation requirements and insists manufacturers correlate feeding instructions with the nutrients provided in their recipe, the only way you can know you're feeding ample nutrients with fewer calories is to seek out recipes or foods specifically formulated for less active or sedentary cats.

To start, check dry food labels, calculate the carbs in your kitty's diet by adding up the moisture, fat, protein, and ash (estimate 6% if you don't see this value listed) on the pet food label and subtract this value from 100: this is the amount of carbs in your cat's diet.

Look for cat foods with no or minimal amounts of potatoes, corn, rice, soy and tapioca to get the carb content down to a biologically correct value of no more than 20% with a goal of less than 10% for healthy cats. Most dry cat foods are loaded with carbs (some pushing 40%), which can lead to blood sugar fluctuations, insulin resistance, obesity, **diabetes** and most concerning for long-term wellbeing, a gross amino acid deficiency.

Transitioning your cat onto a low fat, well-formulated, moisture-rich, meat-based cat food specifically designed to meet nutritional requirements while losing weight is the best way to lower calories, but not essential vitamin, mineral and amino acid intake. Many cats are reluctant to change foods, and slowly transitioning your kitty from their current food to a new food takes time and patience. Ask your integrative veterinarian for suggestions for brands or recipes that are appropriate for your cat.

Encourage hunting behaviors at mealtime — Don't free-feed your kitty, also known as hosting an all-day all-she-can-eat buffet. This feeding mistake goes hand-in-hand with a poor-quality diet, specifically kibble, because it's the most popular type of food you can safely leave at room temperature day and night. Free feeding is the perfect way to create an overweight or obese cat. In addition, a constantly available food source turns your <u>carnivorous hunter</u> into a grazer, which goes against her feline nature and induces metabolic stress.

Wild cats are always on the move in search of their next meal. Many domesticated cats, on the other hand, are free fed. The more you feed, the less interested your kitty is in "hunting" — which is good exercise — around the house. If the only time you see her in motion is when she's walking to or from the buffet, she's getting zero exercise.

Separate her daily food allotment into several small portions and place them in different locations around the house for her to find. Make use of indoor hunting feeders (they work great with freeze dried food), which encourage natural feline behaviors and provide mental stimulation as well.

Also consider putting food bowls or the hunting feeders at the bottom and top of as many flights of stairs as you have to encourage muscle-building exercise throughout the day. Alternatively, you can feed two portioncontrolled meals a day, however, feeding just once a day offers a number of health benefits, including a lower risk of diabetes.

Less is more when it comes to treats — Treats — even very high-quality healthy varieties — should make up less than 10% of your cat's daily food intake. It's also important to remember that treats aren't a complete form of nutrition and should never be used in place of nutritionally optimal, species-specific meals. Overfeeding treats on top of daily food intake will result in an obese cat, and overfeeding treats while underfeeding balanced meals will result in nutritional deficiencies.

Limit treats to training and behavior rewards only. Again, keep treats at or fewer than 10% of kitty's daily food intake, which means offering very small amounts, very infrequently (treat calories must also be subtracted from the food calorie equation, above).

When choosing commercially available treats, make sure they're made with human grade meat and sourced and made in the U.S. A cat-appropriate pet treat won't contain grains or emulsifiers. Many cat treats are semimoist, which means there are specific additives used to keep the treats soft and chewy. Cats are obligate carnivores so look for single ingredient all-meat treats, such as freeze-dried chicken hearts and scallops (loaded with taurine!) or dehydrated meats.

• **Inspire the natural athlete in your cat** — You'll never see a fat cat in the wild because they follow their natural instincts, which include the drive to be physically active and chase prey. I use tiny pieces of meat as treats to lure my cat up and down stairs for aerobic activity.

Consistent daily exercise, including at least 20 minutes of aerobic activity, will help your chunky kitty burn fat and increase muscle tone. For some great ideas to get the ball rolling, check out "**<u>Creative Strategies to Get</u> <u>Your Indoor Cat Moving</u>**." Engaging in play is also a great way to distract cats from "crying in the kitchen," the yowling that sometimes occurs when they realize they're eating fewer calories. Getting their bodies moving and their mind off food is important.

Sources and References

PetfoodIndustry.com, January 11, 2024

ScienceDaily, November 1, 2023

¹ Association for Pet Obesity Prevention

² Opetz, D.L. et al. Journal of Animal Science, Volume 101, 2023, skad338, published September 29, 2023

³ U. of I. College of Agricultural, Consumer and Environmental Sciences, ACES News Release, November 1, 2023