The influence of human behaviors in the increased prevalence of overweight dogs

Implementation of a K-9 “Weight Watchers” program at veterinary clinics and hospitals

Tag words: canine, obesity, animal health, canine nutrition, animal nutrition, overweight, companion animal nutrition, obesity epidemic, canine exercise, animal behavior.

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Summary:
An increasing number of dogs are falling into the overweight and obese categories, paralleling the rise in obesity over the past few decades in people. This suggests that dogs, which interact closely with people, have been influenced by our sedentary lifestyles, over-sized portions and diets high in calories. Two ways to combat the rise in obesity among dogs would be to make a way for people to track the amount of food their dog eats, as well as promote the need for routine exercise. A “K-9 edition weight watchers-like” program, that focuses on both diet and exercise has been developed which can be implemented at veterinary hospitals and clinics.

Video Link: TBA at a later date!

Understanding the Canine Obesity Epidemic

Relationship between humans and dogs

Dogs and humans have a long history of partnership. Since their domestication thousands of years ago, dogs have developed a mutual relationship with people, founded on protection and companionship. A direct result of this close relationship between mankind and canines is seen in the behavioral patterns of dogs, which make them trainable by humans. Being pack creatures, dogs take social cues from humans and everything down from their temperament to eating behaviors, to activity level can be dictated, in part, by the relationship dogs have with their masters (1). Many dogs see their human owners as an alpha figure, and they look to him or her for cues on how they should behave. Acting in accord to their pack mentality, dogs will adopt behaviors that are encouraged by their owners. For example, through this way of interacting, dogs can be trained to be more or less active, or be motivated to eat more or less at meal times. Dog owners can control what, when, and how their canines are eating and exercising, providing both positive and negative reinforcement for social eating behaviors (2).
Social eating

Many of the early interactions between dogs and humans occurred over a source of food, and the desire to eat. Hunter-gatherers would harvest and store game, and wild wolves would be attracted to the food supplies. After a while, people discovered that they could make an alliance with these wolves, which would help them hunt, in turn for giving the wolves a food source (1). Even back then, with a decreased need to search for food, humans have been behaviorally modifying dog eating and exercise behaviors, and rewarding dogs who behaved ideally with food. Studies demonstrate that dogs are social eaters, and most of their intake occurs at times when their masters are eating (3). For example, there exist of many accounts that dogs, if their dining area is removed from the human dining area, will carry their kibble into the same room as that of the people, to eat with the rest of their pack (3).

Obesity can lead to type II diabetes

Currently, many dogs have adopted behaviors typical of an obesogenic environment, and as a result, are experiencing many adverse health effects. In general, dogs are eating more, and are also more sedentary (4). If left untreated, obesity in canines can increase the risks of developing a host of metabolic diseases, such as type II diabetes mellitus and hyperlipidemia (4). Type II diabetes, like in humans, results in dogs when an excessive amount of simple carbohydrates are consumed. An excess in blood glucose can lead to increased insulin in the blood, the dog body’s natural response to lowering blood glucose. However, after a while, increased insulin will be constantly needed to compensate for the large influx of blood glucose, from excessive dietary consumption. Over time, this increased insulin signaling will desensitize cells receptive to insulin, causing them to uptake less glucose. As a result, blood glucose levels will rise and cause a diabetic state. This state can lead to body wasting, as after a while, without sufficient insulin reception, enough glucose will not be able to enter cells to get metabolized. This body wasting can leave a dog with less lean body mass, decrease their mobility, and thus reduce their potential to achieve a healthy weight with exercise. This muscle wasting can also lead cardiac tissue to become damaged. Other complications of diabetes mellitus include cataracts, where scar tissue will build up in the eyes, and lead to blindness. Untreated diabetes can lead to excessive urination, as the kidneys try to excrete the massive amount of blood glucose from the body. This in turn, can lead to dehydration, and stress on the dog, who is ashamed to dirty his den, if accidents result. Advanced diabetes can lead to seizures and comas, and will markedly reduce the lifespan of the dog.

Treatments exist, but are difficult for many owners to administer. Insulin injections are common, and usually performed by veterinary professional staff. Treating diabetes requires routine care, and frequent blood glucose monitoring. Owners may not have the extra time and money to treat this disease. Specially-formulated diabetic diets also exist, but also represent extra costs for owners that may be difficult to afford. Type II diabetes is a detrimental disease, that is highly preventable (5). Yet, with the large rise in canine obesity, this disease will only become more common in dogs, and require extra veterinary care and expenses to treat.
Obesity can lead to hyperlipidemia, heart attack, and stroke

Another common metabolic condition directly related to the rise in canine obesity is hyperlipidemia. This metabolic disease, brought about in part from increased fat consumption, leads to elevated levels of triglycerides and cholesterol in the blood of dogs. Over time, this leads to atherosclerosis, or artery-hardening, and the formation of plaques. This can elevate blood pressure, increase urination, and place extra strain on the heart. These conditions favor reduced cardiac output, and lead to heart attacks and strokes (6). When considering the negative health effects of hyperlipidemia, canine obesity is again seen as a negative influence on canine health.

Obesity puts strain on bones, muscles and joints

Excessive weight gain also places extra strain on bones, muscles, and joints, adding to reduced mobility, range of motion, and physical activity in dogs (7). The more weight a dog gains, the more bones can bend and soften. This increases the risks of fractures, which are painful for dogs, and greatly reduce their ability to move. Decreased movement can also make dogs more susceptible to sore, irritated skin, which could easily become infected if not properly treated. The extra strain on bones also influences the state of the joints holding the bones together. As a dog gains weight and places extra stress on his or her bones, the joins will stiffen. A build up in cartilage and stiffness on stressed joints can lead dogs to develop arthritis, or worsen any existing arthritis. This condition again can reduce the motility, and thus quality of life of a dog. Reduced motility, in general, will also promote further weight gain and obesogenic consequences as the dog will lose its ability to participate in exercise, while most likely maintaining the same level of food intake (7). Thus, on a second occasion, the effects of obesity serve to decrease the quality of life of canines, while making their routine care increasingly difficult for their human owners.

Obesity increases the risks during surgery

Obesity also places more risks on surgeries and routine veterinary procedures for dogs (8). The more a dog weighs, especially in terms of fat, the more medication that will be needed to sedate the dog. This may be dangerous if the dog is a small breed, with a small body, yet a large weight. Over-dosing may result unintentionally, and the dog may experience more side effects of the medication. Routine spays and neuters also take longer when a dog is obese, as it is harder to make incisions and tie sutures on overweight animals. Many veterinary providers base the costs of these procedures on body weights, and the increased prevalence of obesity may lead to a general increase in the costs of spays and neuters. This increased cost of spays and neuters can discourage owners from having their dog spayed or neutered, which can lead to an increase in undesirable sex-related behaviors, more unwanted puppies, and a larger influx of dogs into shelters. Given the large amount of dogs unclaimed in shelters as of now, canine obesity, through an increase in cost of routine veterinary sterilization procedures, can thus indirectly be adding more strain to the growing population of unclaimed shelter animals.
Obesity negatively impacts reproduction and breeding

In addition, especially if the dog is of breeding stock, excessive weight gain has negative implications on reproduction (9). It is harder for an obese bitch to become impregnated and conceive pups. If this bitch is of valuable breeding stock, owners can lose a lot of money, and breed integrity if the bitch cannot be properly mated. Canine obesity, also relates to a generally poor state of nutrition, which will negatively impact the growing pup fetuses on many levels of their development. Large fat deposits as a result of obesity will also place more strain on the mothers’ internal organs, as the baby grows in size, and constrict her stomach and digestive tract. This will result in less food intake, which can harm the fetus, and their high demand for nutrients, especially in the last few weeks of birth, when the fetuses are of a large size (9). All of these diseases, to a large extent preventable, are made worse with an obese body condition in dogs.

Prevalence of obesity in dogs

This close behavioral association between humans and dogs can be partially accountable for the current prevalence of canine obesity. Current statistics report that as of 2012, 52.5% of canines in America are considered overweight or obese. This represents 36.7 million dogs (10). The percent of obese dogs is rising steadily up from 20.6 percent in 2011 to 21.4 percent during 2012 (10). This represents a large increase in the number of dogs who can now be at risk for preventable metabolic diseases, and may also lead to a greater demand, or higher prices of routine veterinary care, as many more dogs will become ill or diseased.

Like dog, like owner- too much food, too little exercise

Since dog owners have control over the diet and exercise of their dogs, the diet and exercise tendencies of people tend to influence the behaviors of their dogs (4). As the rate of obesity in people has escalated, obesity has risen in dogs as well. This trend does not reflect a change in pet food labeling, but rather a change in the behavior of the owner. This rise in obesity in people has been attributed to two major factors. The first factor is the emergence and prevalence of the western diet. The western diet involves eating processed foods high in sugar and fat, and in very large portions (11). The second factor is adopting a sedentary lifestyle, with reduced levels of physical activity (11). Since eating and exercise are two common social functions, and people behaviors commonly dictate dog behaviors, the manners in which people express these behaviors have direct influences on the behaviors dogs adopt.

Role of healthcare providers in slowing the rise in obesity

There is plenty of evidence that canine obesity is on the rise, and that it has serious long-term health implications. The questions that need to be addressed by healthcare providers are how this canine obesity epidemic can be slowed and treated. The level of treatment should not reside solely on that of the canine, but focus on the relationship between the canine and the owner, as this level involves eating and exercise patterns, which can modify an obesogenic state, to possibly reduce the prevalence of obesity.
Increasing exercise-use of dog parks

One way in which combating the rising canine obesity rate is being addressed is through increasing the amount of exercise dogs receive. One major way people try to engage a dog in exercise involves dog parks. Currently, many park systems and townships feature dog parks, to promote canine exercise (12). The general layout of a dog park permits dogs to roam around, unrestrained, in an enclosed area (12). Many parks allow dogs to play with each other, and some separate dogs by size, to ensure safety (12). Dog parks allow dogs to exercise in an environment that is safe, as well as stimulating, with plenty of other dogs and pleasing scents around. Unlike other recreation areas, many dog parks permit dogs to roam around off of a leash, which enables them to engage in many more physical activities, than if their movement was restricted with a leash (13). Off-leash activities, aside from increasing the amount of exercise dogs receive, also have the added bonus of reducing stress-related behaviors of dogs, leading them to engage less-frequently in destructive and annoying behaviors (13). Since increased stress predisposes mammals to obesity, off-leash activities facilitated by dog parks can thus help reduce canine obesity, in terms of both increased exercise, and decreased canine stress.

Dog parks provide an excellent source of dog to dog interactions, as well as people to dog, and person to person interactions, all of which are important components of maintaining a healthy lifestyle. Meeting other people and their dogs can increase the likelihood that a person will bring their dog back to exercise, if the dog and person enjoyed it (13). Having a common place for dog enthusiasts to meet can also lead to the formation of more dog-related activities and events around the community, providing dogs with more potential opportunities to exercise (13). Forming “doggie play dates” due to the social interactions provided by dog parks can promote increased physical activity of dogs, and thus help combat the canine obesity epidemic.

However, many people are a bit skeptical of letting their dogs exercise at dog parks. From the perspective of a person, dog parks are breeding grounds for many undesirable canine diseases. Pathogens can exist in parks that are kept unclean, especially if urine and fecal matter are not properly disposed of. Diseases can also exist in contaminated water supplies, or food that may be left out. If parks do not have vaccination requirements for all entering dogs, canines may pass illnesses and infections on to each other. If park equipment and toys are not properly cleaned and sterilized, they also have the potential to transmit diseases to all dogs who contact them (14).

Common diseases that are preventable, yet can be spread in unsanitary conditions with multiple dogs include bordatella, leptospirosis, canine distemper, canine influenza, and parvovirus. These diseases require veterinary treatment, and are particularly detrimental to very young dogs, or dogs of advanced age (14). External parasites can also abound at dog parks, including fleas, ticks, and mange. Internal parasites exist as well, especially ones that reside in the intestines and lead to digestive upsets (14). Zoonotic diseases, or those illnesses which can be passed between two different species, can also breed at dog parks. Common Zoonotic diseases spread in unsanitary areas with a lot of dog-human interaction are the bacterial disease cryptosporidiosis, and the internal parasite-based disease of echinococcosis (14). As a result, unsanitary dog parks can also become a health risk for people, as well as their dogs (14). Thus, the motivation to let their dog exercise can be prevented by the chance that the dog can become sick, and possible require expensive veterinary attention or medication.
Additionally, to many people, dog parks can foster many aggressive dog behaviors, especially when dogs are unleashed. Dogs can physically hurt each other, or other humans at the park (12). This is especially true if people do not understand their dog’s aggressive or fear-motivated behaviors. There have been incidents of individuals bringing dogs to parks, and their dog would, to their surprise, attack other dogs. Although the dog may not have been aggressive around humans, canine aggression can also manifest only between dogs. In other cases, dog parks do not properly take into account the physical activity levels of individual dogs, leading some dogs to unintentionally hurt other dogs, of comparable size. In a third type of case, dogs may not have been properly socialized with other dogs as puppies. This may lead them to puppy-like behaviors that irritate other dogs, and unintentionally trigger fight between dogs (12).

Thus, on a second occasion, dog parks appear, to humans, as a less-desirable method of exercising their dog. Although dog parks exist as a community effort to help increase canine exercise, and thus indirectly lower canine obesity, many people still remain skeptical of the disease and injury-related risks that can occur at dog parks.

Social media plays a critical role in the way dog parks are advertised to the public. One of the main ways to inform a community of a dog park is through word of mouth between dog owners. This informal communication can be propagated via promotion of the dog parks on websites. Here, dog owners can locate parks in their area that they are interested in taking their dog to. Perhaps if the park has a website listed in an online directory, the owner can take a “virtual tour” of the park, to see if it is suitable for his or her dog. Additionally, dog owners can potentially read reviews from other park users, to gauge how clean, safe, and affordable the park is (15, 16, 17). Thus, social media’s portrayal of dog parks—both negatively and positively—can influence the likelihood an owner will exercise his or her dog there, and can be said to play an indirect role in the canine obesity epidemic.

Modifying food intake—reducing “people food” and curbing portion sizes

A second way in which canine obesity is being addressed is through modification of feeding behaviors. Many owners tend to feed their dogs “people food”, or “table scraps”. However, many of these foods are very calorie dense, with an excess of calories pre-disposing dogs towards obesity. According to the Association for Pet Obesity Prevention, a premium pig ear fed to a 40 pound dog is the equivalent of a human consuming 840 kcal, or six twelve-ounce Coke Classic beverages (10). Considering how rapidly many dogs consume treats, the owner may never be aware that only one ear could add hundreds of excess calories to the diet. If fed multiple times, this can lead to rapid weight gain in a short period of time. Additionally, if the dog is small, this one pig ear, consumed rapidly and frequently, can easily be more calories than are needed in a few day’s span, and thus contribute to an even more rapid onset of obesity. Perhaps if the media personified dog feeding using human portion sizes, owners would be better able to curb their dog’s intake of human food, and thus reduce how much they are overfeeding their pets. However, since many people tend to underestimate the caloric content of many of their human-based foods, this suggests they may apply this thinking when feeding that same food to their dogs.
Modifying food intake does not only work by limiting the amount of human food from the canine diet, but also involves reducing portion sizes of dog food. Larger portions mean more calories, and consuming excess calories can result in obesity, if the calories are not utilized by the dog. One study demonstrated that dogs fed multiple smaller portions per day tended to eat fewer calories, on average, than dogs that ate one or two larger meals per day. Restricting the amount of time the food was left out also influenced the number of calories dogs consumed, with ad-libitum feeding promoting increased intake when compared to time-restricted accesses to food (11). Owners, if aware their dog is overweight, can try to reduce the portion sizes of food provided to their dogs. Reducing portion sizes has a significant influence in lowering obesity in dogs (17). However, due to a lack of standards of instructions and portion sizes on many dog food products, owners are generally at a loss of understanding when relying on pet food companies to guide proper canine feeding.

**Medication to lower body weight**

A third, less-common way in which canine obesity is being addressed is through medication aimed specifically at lowering the body weight of dogs. A medication recently released and approved by the FDA is Slentrol. It is the first veterinary-approved drug for treating obesity in dogs in the United States (18). Slentrol helps dogs lose weight when people-mediated behaviors, such as diet and exercise modifications in dogs are hard to implement. This medication works by decreasing appetite, which decreases feeding behaviors of dogs, and can help them thus lose weight. Slentrol is easy for owners to administer to dogs, and is sold as an oral medication, that can be provided by mouth or mixed with wet or dry food.

However, there are drawbacks to Slentrol. This medication, although scientifically-proven to be an effective appetite suppressant and weight loss supplement in canines, also comes with an added cost, and it is only available for sale through licensed veterinary practitioners. Some owners may not be able to afford this medication, and may not be able to control exercise and feeding behaviors, so their dog may remain obese (18).

Additionally, since it has only been on the market for a short while, any long-term, possibly detrimental effects of Slentrol are not yet fully-known. Currently, Slentrol is not recommended on dogs being treated with steroids, which are commonly-prescribed medications for many food allergy and skin conditions. Thus, the population of dogs to which Slentrol is available may be very restricted. Slentrol has also been shown to negatively impact the liver, and worsened hepatic conditions in dogs that were administered clinical doses, that had initially compromised liver function (18).

**In Summary**

Canine obesity is a growing problem today. It poses a threat of leading to many serious, yet preventable metabolic disorders for animals, which can greatly reduce their quality of life. The number of dogs influenced by this condition is steadily increasing, and without the modification of human behaviors, is unlikely to diminish. People find it difficult to increase the exercise levels, as well as modify the feeding behaviors of their dogs. Although means of exercise, such as dog parks, exist, they are not always a preferred means of exercise for many owners, and have
the opportunity to spread illnesses and increase injuries to both human and animal participants. Altering food behavior is difficult, because portion sizes and food intake instructions are very variable between different pet food companies, leading many people to over-feed their pets.

Even though medications exist to help decrease food intake, they are expensive and new to the market, and may pose unknown long-term health risks that can reduce the lifespan and overall health of the dog even further than just obesity could. The key to treating canine obesity needs to include a more vigorous response and initiative on the part of pet owners and pet care professionals to encourage improved eating behaviors, and promoting the need to find times to exercise.

Past programs designed to promote canine weight loss: Hills Science Diet

Programs designed to manage a dog’s weight are not new concepts. Past programs generally involve altering the nutrition needs of the canine, as opposed to exercise. Altering nutritional needs of a dog may be easier for modern dog owners, who seldom have time for extra fitness activities. One such program advertising weight management in dogs involves the Hills Canine Weight Loss Formula diet. This diet is a nutritionally-balanced, dog-specific food, designed specifically for weight loss. It comes in a dry, pelleted form, (variations for both small and large dogs), as well as a wet food, for increased palatability (19). The food works by maintaining flavor and texture at satisfactory levels for dogs, while reducing crude fat, through the addition of insoluble fiber to the chow (19). The fiber reduces calories, and swells within the gastrointestinal tract to promote sustained fullness, naturally suppressing appetite and total daily calorie consumption. Protein levels are maintained to help promote lean muscle structure, and maintain a healthy metabolism (19). According to the manufacturer, metabolically-active low fat food brands can put a dog on a much healthier plane of nutrition in as few as two months of daily continual feeding of the diet (19).

This food has gained popularity as a weight loss tool for dogs through its promotion in countless veterinary hospitals, and the wide number of varieties available. With their food, Hill also provides marked measuring cups, to help people better interpret portion sizes they are feeding their dogs. This has allowed pet food measuring to become much more standardized, where a cup will truly equal a cup, regardless of when and where the person is feeding the food. The Hill’s pet food company also aims to educate pet owners on the seriousness of obesity with highly graphical and personifiable charts, associating extra calories fed to pets to different amounts of typical obesogenic human foods. Again, these charts are typically displayed in veterinary hospitals. Part of the success of Hill’s in promoting dog weight loss can be contributed to the fact that the company emphasizes in a location that specifically targets concerned pet owners. People that bring their dogs to veterinarians generally care for the well-being of their canine, and would likely be more willing to help him or her lose weight if it was explained to be a serious problem. On–site purchasing can ensure that consumers buy the weight loss formula right for their pets in a veterinary hospital.

A potential drawback of the Hill’s Science Diet “Canine Weight Loss Formula” is the price, and lack of widespread marketing, outside of veterinary hospitals. Since it is a premium type of food,
and clinically-tested, it tends to cost more than other commercial store brands. This may influence people towards purchasing cheaper alternatives, with the goal of simply feeding their dog something satisfying, yet on a budget. This lower-quality food may not be as nutritionally-balanced, and could, at the very least, not help a dog lose weight, or even induce weight gain. Additionally, Hill’s products are not as widespread for purchase as other brands of food. Since they are predominantly sold in veterinary hospitals, people may be less-likely to purchase it, given other brands are available in many retail chain stores. Both price and ease of purchase may be preventing Hill’s Science Diet “Canine Weight Loss Formula” from reaching its full potential in its ability to reduce dog’s weights.

“RU Losers: K-9 Edition”

Other past programs focused not only on weight reduction at a nutritional level, but aimed to promote weight loss through increased physical activity. Locally, Rutgers University developed a program called “RU Losers K9 edition” (20). This program, based off of the popular show “The Biggest Loser” where human participants compete in physical challenges with the goal of losing weight and combating obesity (20). Owners would sign up with their dogs to compete with other owners of overweight dogs, to engage in friendly competitions to lose weight. Exercising socially has been shown to improve participation in activities, and this program had the potential to help dogs lose weight in a way that was healthy for them, and socially-rewarding for the owner as well.

However, “RU Losers K9 edition” suffered from two major drawbacks. The first weakness of this program was the name of the group itself. The word “loser” had a negative connotation to many people whom encountered it, and influenced their decision not to participate in such a program. Although the word “loser” was based off of the popular television series of the same name, owners did not want to be labeled as “losers” because their dog was overweight. The second major weakness of this program was the fact that it was not advertised extensively enough to reach all possible participants in the area. Perhaps the time and mode of advertising led to a combinatory effect of having people overlook the program for other activities. The name and mode of advertising of the “RU Losers K9 Edition” prevented it from gaining the acceptance and popularity it needed in order to be an effective canine weight loss program.

Lack of widespread acceptance

Both the Hills nutritional and Rutgers exercise approaches offered viable means of achieving weight loss in canines. However, both programs suffered from one major flaw- lack of widespread acceptance in all sectors of the population. A weight loss program for dogs has to be accessible, attainable, and pleasing to people as well as dogs. Promotion of the program on local levels, such as around universities and towns, as well as on statewide levels, such as in veterinary hospitals, pet retail chains, pet stores, etc. needs to be achieved on a unified front so that people encounter the program enough to become aware of it. This can be achieved through proper education to pet owners on the serious nature of dog obesity, and instilling a desire to want to reverse the escalating epidemic. If all locations work to communicate one cohesive message targeted to reducing dog weight, perhaps there will be an increase in support for nationally-
recognized weight loss programs, and increased success these programs will work.

Introduction of a nationally-implemented program

Although a nationally-implemented canine weight reduction program would benefit businesses, pet owners, and dogs on many different levels, one economic sector that would benefit immensely from national awareness and dog weight loss program is the veterinary sector. A program geared towards dogs losing weight would help increase client income, referrals, and follow ups in veterinary facilities, even in the face of economic decline. With increased awareness and necessitation of dog weight loss, more owners would take an interest in improving their pet’s health. Since at these clinic and hospital locations, the weight loss programs are run by veterinarians, this would require patients to engage in more frequent visits, and thus stimulate financial gains in the veterinary medical sector.

A nationally-implemented weight loss program for dogs may also have mutual benefits on the owners as well. In realizing the serious consequences of obesity in their pets, and in learning effective ways to control and reduce this condition, people may take an increased interest in their own health and try to lose weight themselves. Hence, a national dog weight loss programs can co-incidentally stimulate a surge in human weight loss programs.

“Weight Watchers”: Success of a nationally-implemented program for human weight loss

It is anticipated that a “Weight Watchers”-like program for dogs will be an effective transition from the human version. The program has had much success for people, of many different body types, ethnicities, and lifestyles. Like all people, every individual dog is different, and a program like this will be able to target the dog as an individual. What makes “Weight Watchers” successful in its human-based form are its weekly commitments, as well as support group meetings, both of which keep individuals engaged, and continually motivated to lose weight. Additionally, “Weight Watchers” features a point rewards program, so people can still enjoy some of their favorite snacks and desserts. Being able to incorporate such foods back into the diet helps promote portion control, and allows individuals to stick to a weight loss plan for a longer period of time (21). All of these concepts will be implemented in the canine version, increasing the likelihood it will be both well-received, and well-understood by people, with the effect of noticeably impacting the obesity rate in dogs.

Initiating a weight loss program at local veterinary practices

If an innovative program designed to help dogs lose weight in a manageable, approachable manner does come to fruition, a trial-run can be started at a local veterinary practice. One suggested host location is Branchburg Veterinary Hospital. Located in Central New Jersey, this established hospital is close to many large cities and areas of dog owners, and has the potential to reach many individuals. At this location, veterinarians and technicians would coordinate the weight loss program for dogs, and gauge both its popularity with clients, as well as effectiveness in reducing weight in dogs. We are proposing that the following program, “Fit K-9: A Weight Management Program for Canines” be evaluated at a trial location. The program can then be modified based on its strengths and weaknesses observed at the test site.
Community Action: **Fit K-9: A Weight Management Program for Canines**

*Fit K-9* is a nutritional management program that will help your dog maintain a healthy weight, while still getting to enjoy some of the treats that he or she loves! This program is designed to be accessible to any owner, and applicable to any healthy, adult dog.

**Key features of this program include:**

A. Initial Nutritional Needs Evaluation
B. Point Rewards System
C. Monthly Meetings with Other Fit K-9 Participants

**A. Initial Nutritional Needs Evaluation**

Each dog is different, in terms of metabolic rate and activity evaluation. Since proper nutrition is a must for any healthy canine, we would like to evaluate your dog on a personal level to help better determine their nutritional needs. This initial evaluation will include a weigh-in, a body-condition score, an overall assessment of their physiological condition and past medical history. With this information, your veterinarian will implement an appropriate weight loss program for your dog, under the *Fit K-9* program.

**B. Point Rewards System**

Part of a healthy diet is not cutting out treats, but learning how to feed them in moderation. The point system is designed to allow dogs to have extra points of food (as treats, rewards, etc). These points do NOT include the calories they consume as part of their daily meals. Points are based on calorie amounts. Extra daily points can be earned if the individual dog is exercising extensively.

To determine the total amount of points your dog can have, please contact your local veterinarian, for a routine nutritional evaluation for your pet. Each pet is different, and caloric needs vary greatly between breeds, and even among individual dogs of the same breed. Each individual dog thus has a different caloric need, and will be assigned a unique number of points.

**C. Monthly Meetings with Other Fit K-9 Participants**

In order to help your dog maintain a healthy weight, it is important to remain educated with the most up-to-date information on canine health and wellness. Our monthly meetings, coordinated by local hospital staff, will allow you to not only learn valuable information to help your dog stay in tip-top shape, but also allow you to meet with other members of the *Fit K-9* Program. At each meeting, members will also have the option of doing a weigh-in to monitor progress, as well as share advice with fellow owners.

*For a handy pocket-reference, the caloric content and points associated with the following common dog treats are as follows (22, 23, 24, 25, 26):*
For ease of calculations, 1 point = 10 kcal.

For every hour of moderate walking, a dog’s total allotted points may be increased by 10%.

A. Milk Bones (small/ “mini”)
   20 kcal/biscuit = 2 Points

B. Milk Bones (medium/ “Original”)
   40 kcal/biscuit = 4 Points

C. Milk Bones (large)
   115 kcal/biscuit = 11.5 Points

D. Beggin’ Strips (Original Flavor)
   30 kcal/strip = 3 Points

E. American Cheese
   90 kcal/(1 square “1 ounce” slice) = 9 Points

F. Strip of Bacon
   40 kcal/(One Six Inch Strip) = 4 Points

G. Peanut Butter
   180 kcal/ (1 tablespoon) = 18 Points

H. Chicken
   60 kcal/ (1 “1 oz” deli slice) = 6 Points

I. Turkey
   50 kcal/ (1 “1 oz” deli slice) = 5 Points

J. Purina Busy Bone (Small)
   300 kcal/bone = 30 Points

K. Purina Busy Bone (Large)
   600 kcal/bone = 60 Points

L. Mar-O Snacks
   30 kcal/treat = 30 Points
References

Letter to the Editor

Combating the Canine Obesity Epidemic
By Nora Jean Nealon
Sent to: The Daily Targum

To the editor of the Targum,

I am a senior studying veterinary science at SEBS and have spent the last semester, under the guidance of Dr. Julie Fagan, researching canine obesity.

The prevalence of obesity in dogs is increasing at an alarming rate, as well as many preventable diseases and conditions, such as diabetes mellitus, elevated triglycerides, dystocia, and hyperlipidemia.

This alarming increase in obesity can be paralleled to the sharp increase in obesity in humans over the last 30 years, especially with the advent of the obesogenic western diet. There are downstream influences of human eating behaviors on dog eating behaviors, who, programmed to be pack creatures, look to people for many social cues.

Past initiatives have aimed to curb canine food intake via reduced calorie, high-quality diets. Although moderately successful, the lack of a unified front of pet food companies in promoting a standardized message of nutrition leaves owners guessing at which food, and how much is really healthy for their dog. Additionally, many prescription diets are exclusive to veterinary hospitals, making them more expensive and inaccessible.

Perhaps new initiatives have to take a different approach towards weight loss. Implementing a dog-version of "Weight Watchers" in local veterinary hospitals may be a solution. Not only would it standardize a weight loss program, but it would also be easy for owners to relate to, given its prevalence in the human community. Meetings could be conducted in veterinary hospitals, which would also stimulate the local economy.
To learn more about this initiative please contact me.

Sincerely,
Nora Nealon