



Well Pet Clinics Mini Series

Session 3: Obesity and Mobility Clinics

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OBESITY

Obesity is well known growing problem in the lives of our companion pets. It is said that at least a third of adult dogs and cats are overweight with this number rising to half of the population if only considering 5-10 year olds¹. As we know obesity can have detrimental effects on the health and longevity of our pets². This has been well documented in the human field and it is estimated globally that 44% of diabetic cases, 23% of ischaemic heart disease and between 7-41% of cancers such as breast, colon and some endometrial cancers are caused by being overweight³. Other conditions such as osteoarthritis are also worsened by obesity. Similar studies have been carried out in animals that revealed similarities in the effects on animals⁴.

Obesity is a medical condition that can be defined as an accumulation of excessive amounts of adipose tissue and is usually related to an excess in calorie intake versus expenditure, although there are some medical conditions such as hyperadrenocorticism or hypothyroidism and some drugs such as anticonvulsants that can cause obesity. A dog or cat is said to be overweight when it is 15% above their optimal body weight and obese if over 30% of their optimal body weight⁵.

Figure 1 – obese cat

Running nurse clinics can help support and improve the overall health and wellbeing of our pets as well as giving support and advice to owners. The principles of running obesity clinics are very similar to the basic concepts we have previously discussed for other clinic with a few personal adjustments to each step.

Setting up your clinic

Charging: most practices don't charge for these clinics as the importance of providing a service that will have huge impact on a pet's health and wellbeing should be available to all to attend. They do however have the potential for income through the sales of

- Weight control diet
- Regular parasite control
- Nail clipping
- Grooming and equipment like brushes, shampoo
- Other waiting room sales (toys, coats, jackets, new collars after weight loss!)

Advertising: most if not all your clients attending this clinic will have been referred to yourself for support and advice on weight loss. If you have a client those books in to see you first then I would advise that they see a veterinary surgeon prior to a weight loss program starting to rule out any underlying conditions we mentioned previously. Potential attendees for this clinic would be:

- Overweight pets
- Neutered pets
- Senior pets
- Arthritic pets
- Hospitalised patients
- Pets with an underlying endocrine disease
- And pets recovering from surgery where strict lead rest is required for a prolonged period of time.

There are many ways to get attendees for these clinics and I would always start by encouraging referral from the veterinary surgeon by placing a register in the consulting room where veterinary surgeons can write down the name of the client they would like to refer for the clinic. I follow this up by sending a personal letter of invite to the client notifying them that their pet has referred to the obesity clinic, the invite should detail the times when clinics run and the contact details required for them to call to book their first appointment. Other advertising you could run includes:

- Having displays in the waiting room and consulting room to help raise awareness of the risks of obesity and the clinic you are offering. These displays should be creative and should emphasize that the clinics are a friendly and informal environment rather than being intimidating.
- Placing information in your practice newsletter and website is also great way to advertise your new free service. Remember to include additional information on the benefits of the clinic and the times they run as well as some downloadable information on tips for success.
- As with the other clinics you can placing an article in the local newspaper to inform local residents that you are now running free nurse clinics may also help to encourage new clientele into your practice as you can be seen to be offering a unique or additional service that other practices don't provide, it would be worth mentioning in the ad that they would need to have been seen by a veterinary surgeon within the last 6 months.

Clinic contents

You should set aside at least 30-60 minutes for new patients attending the clinic this will ensure that you have enough time to obtain a history and an understanding of the animals every day routine. This will help when you are formulating an exercise program and may also help you to understand where the problems lie and hopefully give you some clues as to why this pet has become overweight. Before you start your clinics you should always make sure your weighing scales are correct, this can be done by using a known weight like a bag of food, or you can buy a commercial weight.

- Weigh the animal on arrival, and remember when you are booking future appointments to try keep these at roughly the same time as excuses from owners such as "he maybe needs to go to the toilet" or "he has only just had his breakfast! Maybe that's why he's heavier" are not uncommon
- Take morphometric measurements of the animal this measurement allows us to take away any guesswork and uses an objective assessment based on science and facts. Also by repeating these measurements as the pet progresses with the program it helps to give the owners encouragement that their pet's body condition is improving and they are therefore making great progress. Make sure you measure the pet in the same place every time or you will have inaccurate results. (figure 2)
- Assess body condition score (BCS) using the 1-9 scale⁶ (each point represents 5% body fat). It could be argued this is a subjective evaluation which is based on opinion and perception although I would still advise using this method as the BCS is a good visual aid for the owner to understand what sort of % of body fat their pet has and if shown the point chart first owners can make that decision on how overweight their pet is rather than you telling them, this way they are more likely to accept it.
- Take first photographs, these will come in handy later for comparison once they have reached their target body weight.
 - Take one from above capturing the waist and one from the side.
 - Running competitions for "Star of the Month" is a great way of celebrating the achievement made by you attending clients and using the before and after shots can make a big impact and gives encouragement to other clients that they can do it too.

- Take a history making sure to include details such as:
 - The brand of pet food, the quantity given during the day and if any extras treats are given during the day?
 - What type of exercise does the animal get? Are they mostly exercised on the lead, off the lead or do they play with other dogs? What length of time is spent out on walks and how frequent are these? Is the cat inside or outside?
 - Who else in the family feeds the pet?
 - Who else lives in the house?
 - Does he/she stay with someone else during the day?
 - Does the pet go to work with the owners?

Once you have this information you may already be able to detect why the animal is overweight and it maybe that just a few adjustments to what they are currently doing would be fine without the need of a calorie restricted diet. Although in my experience this always results in a better outcome and a more committed owner to achieve a healthy weight.

It's a good idea to keep a folder or diary with all the information you need on weight loss diets and alternative therapies you may suggest to clients. You can also use this to record all your attending patients and record all of the information discussed during their visit, or make sure you record all the information on your computer database. You should record the amount of calories the pet needs and what this equates to in terms of grams given depending on which diet you have chosen. Record the exercise plan, dates for revisit appointments, target weight, measurements, current BCS and the estimated weeks to reach the target. At each visit you will need to document the current weight and the % of weight loss they have achieved. Record any discussed plans so if you are off any of your colleagues can see your patients and have a plan in place. You can also use this as a place to keep the photographs you have taken of the patient's progress.

Choosing an appropriate diet

This is a crucial part of your weight loss program as you will need to decide what the correct balanced nutrition is for the animal is in order for them to lose weight healthily and successfully. There are many weight-reducing diets on the market today, designed to help aid weight loss and control satiety. Specific calorie controlled food is an adequately balanced diet with all the essential nutrients (protein, fat, fibre, carbohydrates, essential amino acids EEA, essential fatty acids EFA, vitamins and minerals) required to prevent any nutritional deficiencies from occurring. All diets are specially designed to have a balanced nutrient content in ratio to the calorie content so, if we simply reduce the volume of their maintenance diet then they may be at risk of a deficiency in one or more of these essential nutrients. Calorie controlled diets work because they are high in protein, low in fat and have a high fibre content which helps to improve satiety. The higher protein levels also help to decrease the body fat mass⁷, while maintaining the lean body mass⁸.

When selecting a food it is also important to consider whether the animal has any other medical conditions or allergies that may determine the type of diet that we choose for instance has it mobility concerns, is it diabetic? Before any changes are made to the pet's diet it would be worth running the plans past a veterinary surgeon to check if this would be a sensible choice. If the owner is keen to try a different diet then it may be worth offering a couple diets to the pet to see which one maybe preferable, once the decision is made then follow the guidelines on gradually introducing a new diet. This gradual introduction of a new diet is essential for acceptance and to reduce any potential dietary upsets.

Working out required calorie intake

This will vary slightly from each patient and a few tweaks may need to be adjusted along the way. You will also notice that there are many different ways to calculate the required amount of calories for weight loss. I use the resting energy requirements (RER) for dogs and RER x 1.1 for cats. You may see some calculations for cats being RER x 0.8 but initially I like to start with a slightly higher calorie intake and monitor weight loss as you have to be careful in cats with dramatic weight loss as it can cause hepatic lipidosis. It is therefore never advised to reduce a cat's calorie intake any lower than 70% of RER. Another option is to use the guidelines recommended in the product booklet by the company of food you have chosen to use.

To work out RER = body weight (BW)^{0.75} x 70 or you can use 30 x BW + 70 although the former is more accurate and should definitely be used if the animal is under 2kg or over 30kg.

I would advise to measure out how much food the pet should be getting to demonstrate to owners what the daily ration would be, doing this also helps to reduce any fears the owners have of having small size portions and their pet being really hungry, as we know these diets are high in fibre which helps to bulk out the meal, therefore the volumes fed can sometimes be even more than the owners are currently feeding. It may also be worth finding out what size bowl they use at home and supplying them with a measuring cup or scoop as it has been shown that owners who give their pets food in a particularly large bowl or use a large scoop are more likely to overfeed so by changing the bowl and scoop to a smaller size this will help to reduce this common mistake, as seen in a study carried out in 2011⁹. Another reason to feed in a smaller bowl is described in the Delboeuf and Ebbinghaus-Titchener theories, which proves that optical illusion (Delboeuf) and the size-contrast illusion (Ebbinghaus-Titchener) can play a big part in how much food an owner feeds their pet and by choosing a slightly smaller bowl an owner will perceive that they are feeding their dog a larger amount (figure 2).

Exercise:

It is important to not only address calorie intake but also how much and the type of exercise a pet receives, this will be different from each patient and during your consultation you will be trying to understand the pet's daily routine and therefore know how it can be improved if any. You will need to consider a few things such as:

- The age and mobility of the animal.
- The mobility of the owners - this may have a bearing on the type of exercise you suggest and whether the owner can achieve the suggested tasks.
- The seasons – winter is sometimes an awkward time of year for owners as the rain and snow reduce the time spent on nice walks and cats tend to stay indoors a lot reducing the amount of expenditure used so having some indoor activities, games and exercises that can be achieved will help owners stay on track. Summer however also can play a difficult role as we don't want owners or pets collapsing from heat stroke.
- As well as considering the weather, you should also consider any other factors that may have a bearing on the type of exercise regime that an owner is able to keep up like the amount of time that owners can commit to the cause.

Below are a few ideas to help you get started.

Canine exercise: A walk that increases and decrease the heart rate will be a good calorie burner and help to maintain muscle mass. Dogs should be walked at least 3 times a day so including some other games will help to burn off that fat

- Joining the owner on a cycle (depending on fitness and any other mobility consideration)
- Throwing a ball for 10 minutes can make a huge big difference, this can even be done as the owner is watching TV
- Agility classes - you should have details of local classes in your area
- Hydrotherapy, again you should have details of approved centres in your folder
- Encouraging their pet to play on a walk – bring along pets favourite toy or invite some other dogs so that they can play together
- Chasing a ball or toy up and down small hills
- Hide and seek the toy is a great fun game that can be played inside or outside the house.
- Food dispensing balls – allowing the dog to exercise while trying to gets it breakfast or dinner

Feline exercise:

There are many different toys available on the market to encourage cats to exercise; a lot can be made from household items such as:

- Toilet roll made into stacks,
- Cardboard box with holes cut,
- Dressing gown ties,
- Panic mouse, which is a toy that is battery operated and acts like a fishing rod with a fake mouse on the end of the line. It swings around and the cat has to try and catch the mouse, it helps to encourage the cat to stretch and encourage natural hunting behaviour,
- catnip pouches, which can be refilled with fresh catnip when required,
- Laser torches, which can be used on a rainy day or evening (do not point it at the cat!),
- Food dispensing balls, which dispense a small volume of food as the cat moves it around the floor
- Encourage cat to come for walks – I know plenty cats who join their owners for a daily walk, a lead and harness could be worn if owners wish, or
- Encourage foraging by placing food in different areas around the house. Using this foraging method means the cat will have to actively look for their food. This can also improve mental stimulation and is especially beneficial for inside cats.

Ending the consultation

It is important to make sure the owner understands what the aims and benefits of the weight loss program and if they have any concerns or questions. You have to make sure the owner is committed to making an improvement to their pets overall health. I always ensure that the owners are clear about what targets have been set, so that they have something to aim for between visits to the clinic. The pack that you put together for owners to take away should include all of the following information:

- Your contact details,
- The new feeding regime in an easy to understand format,
- Information on the chosen calorie restricted food,
- Exercise routine with ideas for inside exercise,
- Their next appointment date and expected weight target, and
- A graph charting the pet's progress (you will update this at each visit to monitor progress.

Follow up consults:

Follow up appointments should generally involve;

- a weigh in (comparing weight from previous visit),
- a general health check,
- repeat morphometric measurements, and
- Discussing any concerns the owners may have.

Dogs should be aiming to lose between 1 to 3% per week, whereas cats should be aiming for the 1% mark, although many cats will only lose about 0.5% per week, this is an acceptable target if it is consistent. You should plot the new weight on graph and records if this has not been achieved so then some detective work will be required to find out why. A common reason is that the wrong amount of food has been given so try marking volume to be given at each meal with a line on the measuring cup. It would also be worth explaining to owners that they need to fill the cup with kibbles to sit exactly on the line, even just a little over that line could mean that they have accidentally been feeding an extra 20g on top of their daily ration.

Re-evaluate the exercise program and adjust if required depending on how owners got on in the first week, did they manage or do they have any concerns.

Make sure a revisit appointment is booked for in two weeks' time. I would advise seeing the client every two weeks for the first 3 visits and then if the animal is progressing well and there are no concerns the consultations can be extended to visits every 4 weeks. Once you approach the target weight start discussing what their long term plans are. I would suggest two main options;

1. Keep the animal on the same food but increased volume, or
2. Change to a light maintenance food.

Once the target weight is reached it is important to encourage frequent visits to the clinic. This also helps to continue the motivation for the owner so they don't revert to any bad habits from before.

Summary

This should hopefully provide a good guide to how to set up and run weight clinics in your practice however you will need to tailor the routine to your individual clients and to your practice. The key point is that the client needs to be as determined and enthusiastic as you are, as they will be the ones making sure that the plans are being followed through at home. Make sure you reward success and continue to give encouragement even on those bad weeks.

Figure 1 – obese cat

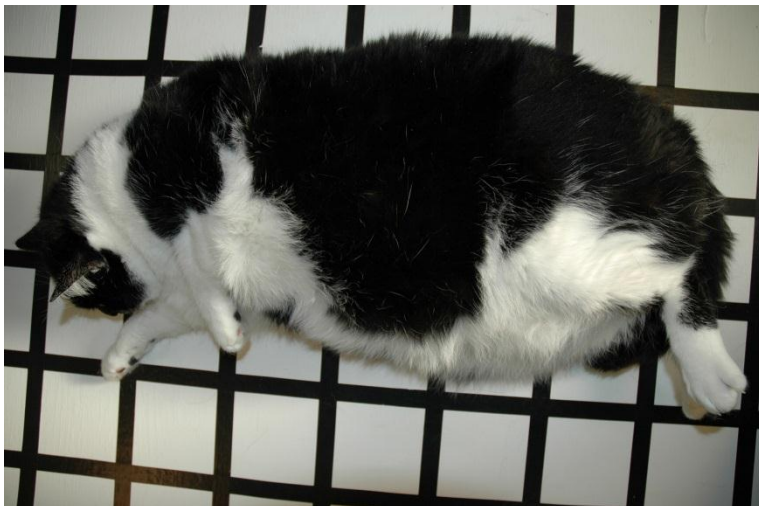


Figure 2 - Delboeuf and Ebbinghaus-Titchener theories



Mobility Clinics

Aims

Many animals suffer with mobility problems which can severely impact on their quality of life. By making small changes to your pet's diet and exercise routine, we can often make a sustainable improvement. Mobility clinics help to improve quality of life by managing and alleviating pain.

Clinics

The clinics should be available to all ages, as mobility issues can affect any breed at any time; we currently have had in quite a few 3 year old dogs in with mobility issues due to arthritic changes. The content and format of clinics is similar to the others we have discussed previously and the key aspects of a mobility clinic are;

- At the first consult you should conduct a full assessment, looking at weight, muscle condition scoring and body condition scoring.
- Taking a full history at the first consult is also important. As previously you should use this as an opportunity to really try to understand the nature of the issues the pet is facing and in the case of mobility also understand the home environment. An ideal tool in completing this is the questionnaire which you can use to guide your discussions with the client (and if time allows it complete alongside the owner).
- Completing a pain score chart, most reps will have charts that can be used or you can develop your own, and in subsequent consults revisit this to track progress.
- You should discuss and formulate an appropriate exercise programme for the pet. When doing this you should use common sense and, for example, cut out excessive walks or unnecessary exercise that may cause more harm than good. As well as a formal exercise programme simple environmental changes can make a huge difference, as we will discuss below.
- In addition you can discuss the merits of nutritional supplements.

The key thing for all clinics is to be confident and comfortable in what you are talking about as this will put you at ease and make the whole session more useful. Common topics that come up include; what is Osteoarthritis and how can we reduce the pain levels it causes, what are side effects of the various medications that can be used to address mobility issues and what are the products and diets that can be used to improve quality of life generally for pets with mobility issues.

What is Osteoarthritis?

Osteoarthritis (OA) is a degenerative joint disease (DJD) more commonly occurring in synovial joints. The formation of new bone (osteophytes) causes the joint to fuse and break down the articular cartilage, resulting in the chronic pain experienced by the animal. The cartilage acts as a shock absorber for the joint and when it breaks down it can result in the exposed bone rubbing together which in turn causes microscopic fragments of cartilage and bone to break off. This extremely painful condition can affect both the axial and appendicular skeleton, is slow to progress and can have a massive impact on the animal's quality of life.

The causes of OA are grouped as either primary or secondary; primary being due to non-traumatic (idiopathic) causes and secondary being due to traumatic causes. Research carried out in 2006 showed that 70-90% of cases of osteoarthritis are said to result from primary causes^{10,11}

Nutritional considerations

There are a number of mobility specific diets available on the market. Mobility diets are rich in Omega-3 fatty acids which soothes inflamed tissues and help to ease aching joints. EPA and DHA are omega-3 long chain fatty acids that have a beneficial effect in maintaining healthy joints and activity levels in dogs as they age.

These diets are commonly higher in calories than other maintenance diets so this may not be suitable for all cases especially if they have a history of pancreatitis or hyperlipidemia therefore maybe other supplements may need to be considered. As we know mature dogs are prone to weight gain which predisposes them to further joint disorders. And the Highly digestible protein limits fermentation processes and also helps to reduce flatulence you may also see things such as FOS which we have discussed before and beet pulp to help stimulate the growth of beneficial bacteria in the gut so you may notice that the Protein, calcium, phosphorus and sodium levels are controlled to give the best levels for the maintenance of bones and joints.

They are high in antioxidants to help fight free radicals such as vitamin C, vitamin E, taurine, lutein, green tea & grape seed polyphenols in addition to the antioxidants naturally occurring in green-lipped mussel help maintain vitality in the dog as it ages.

Some diets also contain Green-lipped mussel (*Perna canaliculus*) helps to maintain joint mobility in adult dogs as they age. You may see ETA in the ingredients as this is eicosatetraenoic acid which is unique to green-lipped mussel

High levels of chondroitin and glucosamine help to maintain healthy cartilage and joints in larger dogs.

Environmental considerations

I have often found that being able to step back and discuss a pet's home environment with owners can result in identifying easy ways to make the pet's life easier that are not obvious to owners because they are so accustomed to the environment they do not notice the difficulties it poses.

The key areas for the pet in the house are where it eats, sleeps and toilets and each of these areas should be appropriate to the level of mobility of the pet.

For example large breed dogs should have raised food bowls or arthritic cats should have easily accessible litter trays with soft litter that does not cause them additional discomfort.

Additional therapies

Finally we should also be able to discuss and recommend alternative therapies that can really help with pets with mobility problems. Hydrotherapy and Physiotherapy are two common examples which can help with inflammation and discomfort.

Working with pets with mobility issues can be incredibly rewarding as simple steps you take can make a huge difference to a pets wellbeing

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