

## Common Discussions with Owners

- **Eating before surgery**

- A full stomach can cause increase the risk of regurgitation of food and possibly aspiration into the lungs under anesthesia
- Recommendation in dogs and cats: withhold food after midnight (=>8 hours)
- Recommendation in puppies and kittens under 4 months: should fast for 4 hours (feed a small meal/snack at 6 am). This decreases risk of hypoglycemia for pets who cannot hold their glucose levels as long.
- However the stomach should empty after 4 hours in normal circumstances.
- Therefore we can be flexible with small meals after midnight. We may be able to proceed with surgery still. We can be more flexible with cats since they are later in the day. Please check with a veterinarian if you are in doubt.
- Extra precautions can be taken to prevent aspiration.
  - Ondansetron or Reglan injection (antinausea) -\$10.00
  - Intubation - acts like a plug in the trachea so if regurgitated then contents cannot get into lungs. - no charge
  - Perform surgery last so more time has passed

- **Carsick pets**

- Nausea during anesthesia also puts pets at risk of regurgitation and possible aspiration into the lungs. It also is uncomfortable for the pet. They are likely to get more nauseous throughout the day with the anesthesia and the car ride home.
- **We can help.** Extra precautions can also be taken to prevent aspiration
  - Ondansetron injection -\$10.00
  - Intubation - acts like a plug in the trachea so if regurgitated then contents cannot get into lungs. - no charge
- You do not need to check with a veterinarian to offer this injection but please ask if you are on the fence whether you should offer it.

- **Heart Murmur**

- This is the most common reason we decline pets for surgery. Ideally veterinarians will be calling since it is bad news.
- A heart murmur is when we hear an abnormal whooshing noise when we auscult the heart (listen with our stethoscope). The whooshing noise means the blood is flowing through the heart abnormally.
- I tell owners that it likely means there is an underlying heart disease. Causes of heart murmur include a growing heart, structural abnormalities, valve degeneration, heartworms, heart tumors, nutritional defects and severe anemia.
- We grade heart murmurs from I-VI depending on the severity or loudness.

- “Innocent” heart murmur: a low grade murmur (typically grade I or II/VI) in puppies/kittens that goes away with age and is not associated with any disease. Typically caused by a growing heart and a lower hematocrit level, which is normal at that age.
    - We expect this to go away by 6 months of age
    - The veterinarian may recommend rescheduling later to see if the murmur resolves or monitoring the murmur with a FSV.
  - **Why we decline pets with heart murmurs: They are at increased risk of death under anesthesia.** Anesthesia can cause abnormal heart rhythm, heart failure or sudden death.
  - **Recommendations:**
    - First, the heart needs to be evaluated and monitored by a FSV. Typically this involves radiographs of the heart and lungs and ideally an ultrasound/echo of the heart with a vet cardiologist.
    - Second, any anesthesia/surgery needs to be performed at a FSV with extra monitoring equipment and precautions such as an IV catheter.
  - In very rare cases we can proceed with surgery here. This is only if the owner is insisting that they will not go to a FSV and need the surgery done to keep that pet. They have to be aware of the risk of death and speak with a veterinarian beforehand. We would take extra precautions such as placing an IV catheter and use our more intensive monitoring equipment.
- **Cryptorchid**
    - Please advise owners they can still get females pregnant. This is a common misconception.
    - Please also advise owners that the trait is genetic so they can pass it onto their offspring, which is even more reason to neuter.
    - The testicles should descend into the scrotum by 8 weeks. However, some take longer and can descend up to 6 months. **I recommend waiting until 4 months then proceeding with surgery because the location is unlikely to change after that** (also coincides with their last vaccine with us).
    - Inguinal cryptorchid is where you can feel the testicle under the skin in the groin. This is a pretty simple surgery and similar to a regular neuter. - charge \$35.00
    - Abdominal cryptorchid is a much bigger surgery. We have to enter the abdomen and search for the testicle. This search can be easy or really hard and take a while. There is a rare chance that we do not find the testicle.
      - Likely will recommend gabapentin in dogs
      - Charge - \$70.00. This is because it takes us at least twice as long and sometimes much more. This is non-negotiable and cannot be subsidized.
      - Please book abdominal cryptorchids as two neuters. Only one cryptorchid procedure per day.
      - We will have to decline any pets that have both cryptorchid testicles.
    - Sometimes we cannot tell if it is inguinal or cryptorchid because the pet does not allow us or there is too much fat. Sometimes it only becomes apparent after

anesthesia and the dog is on its back and relaxed. You may have to warn owners of this. When in doubt warn them about both possibilities.

- There will be two incisions. Please warn owners at discharge.

- **Umbilical hernia**

- A hernia or outpouching where the umbilical cord used to be. This happens if the abdominal wall doesn't fully close, allowing abdominal contents to poke out under the skin.
- Typically the contents are only fat but in extreme circumstances can be intestines or other organs. We typically only see smaller ones containing fat.
- Reducible vs non-reducible.
  - Reducible means the contents can be poked back into the abdomen. This also means the hole is open and fluid so more contents can continue to come out. We recommend repair for this.
  - Non-reducible means that you cannot poke the contents back in the abdomen and the hole is essentially scarred. They are typically really small and the equivalent of an "outie" belly button. These are not necessary to repair and repair is cosmetic, unless they are large. If the owner request repair we can do it. If the owner does not request repair, we will not offer, unless a veterinarian states otherwise.
- Surgery is typically simple and non-painful. We replace the contents into the abdomen and suture the hole up.
  - If it is a spay it may or may not be included with the incision for the spay. For a neuter it will be a separate incision. We usually don't need to remove sutures unless stated otherwise. Please advise the owner of two incisions at discharge.
  - If it is a larger hernia repair then the veterinarian will consult with you about specific recommendations. In rare cases, a large hernia may require a specialist to repair.
- There are other types of hernias, such as inguinal or other parts of the abdominal wall. We are not currently offering repair for these and in the future these would be treated as special medical cases.
- Charge - \$50.00. Can be subsidized if deemed medically necessary.

- **Previously spayed or neuter**

- Always recheck for a microchip
- We should be catching the males before they are under anesthesia, unless fractious.
  - When a MALE CAT has no testicles in the scrotum he is either neutered or bilateral cryptorchid. We look for spines on the penis to tell the difference. Spines are caused by testosterone, so if we have neutered them and there are no testicles, then theoretically there would be no spines. This is not 100% but I would not explore a cat without spines to look for testicles. We have to use this investigation in cats because we

often cannot see scars from a neuter. DOGS do not have spines so we would have to look for a scar.

- We often do not know if a female dog or cat may be previously spayed until they are under anesthesia and shaved. Sometimes we see a scar during pre-op prep, which may or may not be from a previous abdominal surgery. We use the scar and mammary development to make our best guess if spayed before. Other times there is no visible scar and we only identify it during surgery.
  - **How to proceed when you identify a scar: It is imperative to discuss the history of the pet and identify likelihood that the pet is spayed or now.** You will then do your investigation with the owner and decide together whether to proceed with a surgical explore. We do not want to encourage a surgical explore if it is not reasonable.
    - ex) recently found the pet and veterinarian is probably thinks it is spayed then would not recommend explore unless certain circumstances
    - ex) has the pet for 3 years, has shown signs of being in heat and the scar is not as obvious then would probably recommend explore.
    - If in doubt still do not hesitate to discuss the case with veterinarian again after speaking with client.
  - Surgical explore requires a bigger incision, can be more painful (because we have to get deeper and search), and is more time-consuming than the spay itself. Please warn owner of this before so they are making an informed decision.
- There are some instances that a pet will have had abdominal surgery and is still known to not be spayed. Please make a note of this on the surgery paperwork so that we don't mistake it for a spay scar.
- A surgical explore will be the same cost as a spay.

- **Fleas and Tapeworm**

- Fleas transmit tapeworm so they often come as a package. Whenever you see fleas there is a good chance of tapeworm and whenever there is tapeworm there is a good chance there are fleas
- In very rare cases humans can get tapeworms from dogs and cats but they would have to ingest a flea that is infected with tapeworm.
- **Some statistics:**
  - You will typically see 1 in every 100 fleas that are in your home
  - Fleas live in the environment more than on your pet. They only go on your pet to feed. Therefore cleaning the environment is just as important as treating your pet. Vacuum and wash daily and can use exterminator or borax white powder (safe and cheap)

- It takes an average of 3 months of environmental decontamination and flea preventative to clear an infestation from a house.
  - All pets in the house must be on preventative simultaneously for 3 months to clear an infestation
  - Fleas are just as prominent in winter because the house is still warm.
- Sentinel and Panacur treats tapeworms in dogs and Bravecto Plus and treats tapeworms and fleas in cats (how nice is that). Please offer these treatments when you see fleas.
- Capstar: we will give capstar (when available) to surgery patients who are severely infested.
  - This will only kill the fleas and last 24 hours. So it is not a replacement for flea preventative. If it is not followed up with flea preventative then the fleas will jump right back on them from the environment as if nothing happened.
  - We give it rectally since they are under anesthesia
  - It is very safe so we don't need owner consent to give it
  - We do need to let the owners know we gave it
- **Please always recommend a flea preventative when we see tapeworms**

- **Deciduous teeth/dentition**

- Baby teeth that do not fall out normally, most commonly with the canines teeth
- They should fall out by 6 months of age but can take longer in toy breed dogs
- If they remain for a long period of time they trap tartar and bacteria, and act as a highway for bacteria to go under the gum and cause periodontal disease and abscessed teeth. (A canine tooth is not a tooth you want to have an abscess in because of the deep size of the root.)
- Recommend FSV for extractions if remaining past 6 months.
- Most FSV will recommend extraction at time of spay/neuter so it is one advantage of getting spay/neuter done at FSV if the deciduous teeth are known.
- Can do extractions at our dental clinic for \$100

- **Seizures**

- It is not uncommon for dogs to have a seizure under the anesthesia we use. It typically occurs while the pet is going under anesthesia or waking up from anesthesia (in between planes of anesthesia). We very rarely see it in cats.
- We document how long it occurs and if multiple ones occur.
- If it lasts longer than 1 minute we will typically give Midazolam (Valium) to stop the seizures. We may also give antisedan reversal. Please let the owner know if we gave midazolam as it may make them extra sleepy when they get home.
- Short seizures will have no long term effects in the pet.
- It may have been due to the anesthesia and will never happen again. Rarely it can be an underlying condition or epilepsy that is "showing itself" under

anesthesia for the first time, and therefore additional seizures may occur in the future. Very rarely it can be from other disease in the brain (ex tumor, infection in the brain etc)

- If the pet has another seizure at home recommend a FSV or ER, although this rarely occurs. Offer to follow up with their FSV to discuss and possibly do bloodwork.