

Informed Consent

Mass Removal

You have elected to have your pet undergo a surgical procedure to remove a mass. These surgeries and the tumors we are treating are highly variable, as you may imagine. The information here is very general to touch on the most important and common issues. If there are unique issues to the mass present in your pet, your veterinarian and surgeon will likely discuss those additional issues on a case by case basis.

What are the Goals?

The goal with mass removals vary, depending on:

- 1) What we think the mass might be: if we think the mass is more likely to be benign, we will not be as aggressive with our surgical technique.
- 2) How big is it: smaller masses yield more tissue around them to work with, making for a simpler procedure and recovery.
- 3) Where it is located: masses on the chest and flank, for example, have more skin around them to spare when removing the tumor and closing the site versus masses on the lower legs and feet.

The ultimate operative goal would be to “cure” your pet with surgery. To obtain a cure, we have to “get it all,” and that includes the mass that we can see and feel and also all of the microscopic contributing cells, that we cannot see or feel.

What is the Approach?

Generally, we approach mass removals in one of three ways:

- 1) Simple mass removal to remove what we can see and feel with a less aggressive margin: this approach is used for small masses and/or those that are likely to be benign.
- 2) Remove the mass with a large margin, up to 3 centimeters in all directions. This is desired in locally aggressive and/or small or medium size tumors. This 3 centimeter margin includes lateral margins, around the mass, as well as the deep margin, below the mass. In most cases we are limited by the local anatomy and potential complications associated with being too aggressive. In some scenarios, we may have the luxury of obtaining wide surgical tissue margins.
- 3) Remove the mass with a small, narrow, or incomplete margin: this approach is used when we are limited by anatomy (we know we cannot get 3 cm around and/or deep) or size of the tumor (if the tumor is so large there is not 3 cm or tissue around the mass available). This may also be referred to as “debulk.” We accept the fact that tumor recurrence is very possible following this surgery.

How do we know what we are dealing with?

In most cases, we may have an idea of what we are dealing with based on cell samples obtained preoperatively. But we only know for SURE what the mass is when a piece of the tissue, or the mass itself is sent in for interpretation at the lab. This means that at the time of surgery, we often don't know for sure what we are dealing with. For this reason, we may not want to be overly aggressive, and risk an increase in the complication rate. Conversely, we don't want to be too shy and not take enough tissue to give the best chance for a cure.

The complication rate with "mass removal" is too hard to pin down, given the variables. However, a few common complications and issues can be mentioned so you have an idea of what to expect post operatively. If you have any concerns, please let us know.

Seroma-this is a benign collection of fluid under the skin. When there is a lot of dissection, tissue planes become disrupted and can lead to fluid accumulation as they heal. These do not often need additional surgery, but if they are large or bothersome, they may need further therapy.

Infection-this is a risk with any surgery. Treatment with antibiotics is usually effective. If the infection is severe, additional therapies may be needed.

Recurrence-masses that we can see and feel are also made of cells we cannot see or feel. Sometimes (in the case of debulking) we know we are likely to leave cells behind, but sometimes we just don't know. If cells are left behind, they may grow to form another tumor.

Distant metastasis (spread to other areas)- if the tumor is a type of cancer that may spread, it could have spread prior to mass removal and this could be diagnosed some time after surgery

Wound dehiscence (incision break-down)- if the incision opens, additional therapy may be required.

Damage to blood vessels, nerves, some muscles- usually, mass removal requires dissection of surrounding tissues. Blood vessels, nerves, muscles and tendons are present in all areas of the body and those structures in the area of the mass could be damage or even removed with tumor resection.

Large incisions- large tumors, or tumors that are aggressive will require large incisions, Sometimes these incisions can be bigger than you expect. Prepare yourself for a larger than expected incision. When we can incise around masses, we mark margins in a circle, around the mass, but we cannot close a circle, so the incision must be extended at the ends to form an ellipse, which closes in a straight line.

"Dirty margins"- we may get the tumor or mass removed but find out that there are cancer cells in the margin of the excised tissue. We must infer, then, that there are tumor cells in the wound bed, still in the body. That doesn't necessarily guarantee they will grow back, but they may. Options in some cases may include monitoring to see if the mass grows back, or additional surgery to remove the wound bed. This can be discussed further with your veterinarian and/or surgeon or a veterinary oncologist.

Hemorrhage (bleeding)- is common and can be profuse, but is rarely life threatening

As mentioned, mass removals are diverse in type, size, anatomical location and behavior. Specific complications may be difficult to predict. This list is not exhaustive but includes some things to keep in mind. Please let us know if you have any questions or concerns.