

HEALING A LARGE WOUND



It's not uncommon for us to surgically remove large tumors from dogs. Depending on the location of the tumor and its size we sometimes have difficulty closing the large incision we need to make – sometimes there just isn't quite enough skin to fill the gap. Other times, a dog licks or chews at the incision and opens it back up. Either way, we may be left with a large skin defect that needs to close



back up again. An injury, infection or burn can also leave a skin defect.

Dogs and cats are very good at filling up and healing a large wound. Within a few days of surgery or injury the hole in the skin fills in with a bright pink-red, slightly lumpy, glistening tissue called granulation tissue. Granulation tissue forms what is called a wound bed – it completely fills in the skin defect. New skin cells then grow in over the top of the granulation tissue.

Madeline Clare, whose pictures you see here, had a large tumor removed near the left hip. It was about three inches in diameter, seen here cut in half to display the tissue inside the lump. To remove it completely plus two cm of normal tissue around it, to be sure

no cancer cells remained in the area, meant a large incision. In order to close the incision, Dr. Boss used not only the skin around the tumor but a flap of nearby skin slid over to help fill this in. There was still enough tension on the skin that when Clare was able to get to her incision and lick at it, the center area of the incision pulled open.



Rather than anesthetize her for surgery again we decided to let the wound "granulate in." Here you can see the granulation tissue after it fills in the skin defect. Granulation tissue has plenty of blood supply for healing but no nerve supply, so cleaning, applying ointment or bandaging does not hurt the pet at



all. Wound care is generally done without sedation.

Light pink new skin is beginning to grow in across the top of the granulation tissue at the bottom of the lesion. The last picture shows the same area 10 days or so later, with the skin healing almost complete and hair beginning to grow back around it.

It's best for granulation tissue to stay moist so when possible we keep the area bandaged. Wounds can be messy, so bandages help to reduce dripping of the "serosanguinous" fluid that keeps the healing area moist and eventually forms a scab. Some places are very difficult to bandage and in those cases we just slather the wound with antibiotic ointment twice a day. We usually keep these pets on systemic antibiotics as well, until the defect is small enough to hold a scab. Pet owners often end up doing the wound care and bandaging themselves. In Clare's case, her owner is a nurse so she took care of most of it and we just did a few rechecks along the way.

In summary, although having a pet's incision come open can look gruesome and frightening, Mother Nature is amazingly good at taking care of the healing that needs to occur. We just have to support her with some good nursing care and time.