

**HANDLING THOSE HOLES IN THE MOUTH:****Cleft palate, cleft lip, oronasal fistula**

**Overview—“I don’t understand what a cleft or fistula are; please help me understand the condition and the treatment.”**

In general, we call holes in the mouth that result from birth defects, “cleft lips” or “cleft palates”. Those holes that result from tooth decay or external trauma (bullets, bite wounds, electric shock/cord chewing, radiation treatment for cancer) are called oronasal fistulas.

A cleft lip is most commonly seen as one nostril that doesn’t meet-up or connect at the centerline and continues as a split in the upper lip below the nose; most also continue into the roof of the mouth called the “hard palate”. Occasionally these splits in the roof of the mouth continue all the way back to the throat area to include the “soft palate”. Since the roof of the mouth is also the floor of the nasal passage, a hole in the mouth leads right up into the nose.

The most common dental disease associated oronasal fistula is created by a very diseased upper canine tooth. The long roots of these large teeth extend into the thin bone of the floor of the nasal passage. When the socket of the canine tooth rots away from tooth disease, there is direct communication from the mouth to the nose through that diseased socket—an oronasal fistula is the result. Other large molar teeth can also create the same condition further back in the mouth.

Oronasal fistulas not created by tooth disease are a result of some type of external trauma that disrupts the roof of the mouth/floor of the nasal passage. The most unfortunate causes are gun shots to the face, bite wounds to the face and radiation treatment for mouth or nose cancer.

Treatment for all these holes in the mouth is most commonly surgery to reconstruct the defect with the natural mouth/nose/lip tissues bordering the defect. Occasionally a dog/cat will be a better candidate for a semi-permanent silicone plug to block the hole.

**“Why is this procedure being recommended for my pet?”**

Direct communication between the mouth and the nose is disruptive to a healthy nose and lungs. Food (and other foreign materials like hair and plant material) will pass into the nasal passages (causing nasal infection); liquids can be breathed into the nasal passage from the mouth and pass directly into the trachea and lungs (causing pneumonia). From excessive sneezing to nose bleeds and snotty discharge to life threatening pneumonia, holes in the mouth are variably dangerous.

A cleft lip is a relatively benign cosmetic problem, but very commonly in dog-society, facial communication is difficult with a cleft. During greetings, clefts defects can be misinterpreted by approaching dogs and create negative behavioral interactions and difficulty socializing for youngsters.

**“What options do I have to treat my pet’s condition (no treatment; conservative, medical, and surgical treatments)”**

Any of the mouth holes that create bad breath and nasal discharge can be helped with oral hygiene rinses daily.

A minor cleft lip without significant extension into the mouth cavity can go with out any treatment. More extensive cosmetic cleft lips can be reconstructed surgically.

Cleft palates and oronasal fistulas can be reconstructed surgically. The occasional small or difficult to reconstruct defects can be semi-permanently be closed with a silicone plug.

**“What postoperative complications do I need to know and understand when considering this surgery?”**

Oral surgery will result in 1-2wks of bloody saliva and bad breath. Daily use of oral hygiene rinse is helpful during this early phase of healing to prevent excessive bacterial contamination and infection.

The mouth and nose are constantly in use (tongue, food, sniffing) and have a relatively high normal bacteria population; both of these create challenges to straight forward surgical tissue healing. The breakdown of stitches and repair sites is common enough to plan for, and something we actively try to prevent. Additional surgical “touch up” procedures may be needed to finalize a reconstruction effort.

Some very large clefts or some oronasal fistulas caused by extensive infection, radiation or electrocution will have residual holes that are not repairable. Some of these will be small enough as to be insignificant and need no further attention beyond oral hygiene rinses; some may be helped with custom silicone plugs.

**“Are there situations when the surgical outcome is not what we hoped it would be?”**

The repair of the cleft lip/nose rarely results in a perfectly symmetric nose/lip; it will also result in some degree of scarring of the region. Proper cosmetic expectations are important when pursuing this correction.

**“How is my pet’s life and lifestyle likely to change after this procedure?”**

The problems of chronic nasal discharge, sneezing, bloody nose, nose-rubbing will be reduced dramatically or eliminated with reconstruction of cleft palates and oronasal fistulas. Chronic episodes of pneumonia will likely be eliminated.

**“Are there things I can do to prepare myself, my home and/or my pet for this procedure?”**

- Prepare the household by removing any toys that can be held in the pet’s mouth (restriction in place for 6-8wks postop).
- Start rinsing mouth daily with an oral hygiene rinse from your veterinarian; continue use 2wks postop.
- Switch to a canned/soft food over a week or so (or plan to soak usual kibble/dry food postoperatively); continue soft food/soaked kibble 4-6wks postop.
- For the first week postop, expect bloody saliva; prepare the household against unwanted soiling of furniture, etc.
- Oral pain medications and antibiotics will be needed postop for 2wks; plan for soft treats/meatballs for delivery.
- Plan for an E-collar or equivalent device postop that prevents feet from pawing at mouth.

**Outpatient surgery and anesthesia** can be uncomfortable, painful, disorienting, and frustrating experiences for animals; watching your pet work through the early postoperative period and recover from anesthesia and pain medications can be worrisome, scary and frustrating for pet owners. The vast majority of the time this period of difficulty is brief, and *your pet is actually more comfortable and secure at home with you*. Sometimes it doesn’t feel like that at two in the morning when your pet is anxious and not consolable, and you are unsure of what to do. You always have the option of transporting your pet to a 24-hour veterinary facility postoperatively. If you do not want to have your pet home in the first few days postoperatively, please advise your primary care veterinary staff. They will provide contact information for a local 24-hour veterinary facility and help get an estimate for the ongoing care.

It is important that you have proper expectations about this procedure; your experience and your pet's outcome will benefit greatly. Please discuss this information with your veterinarian when working through the decision-making process regarding **cleft lip, cleft palate or oronasal fistula**.

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