

Cleft Palates in Kittens

Surgery can correct this congenital defect, but a great deal of care is necessary to get a kitten that far

In a normal kitten, there is a solid tissue barrier between the nose and the mouth. During development, these tissues grow from the sides of the common oral and nasal cavity and meet in the middle, forming the roof of the mouth, called the palate. The palate is comprised of hard (front portion) and soft (rear portion) regions.

If these tissues fail to grow together normally before a kitten is born, the kitten will have a cleft palate. This can be a small defect—such as a tiny hole in the hard palate—or a split that runs from the lips all the way back through the soft palate. A major or primary cleft is obvious right away because the affected lip is split. Sometimes it is just the lips that are split, but often the damage is more extensive.

When you check inside the mouth of a kitten with a cleft palate, you can often see the split going back along the top of the oral cavity. Small or secondary clefts may be harder to visualize, especially in a wiggly kitten.

Signs of a Cleft Palate

An affected kitten might lag behind her littermates in growth. You might notice milk draining out of the kitten's nose during or after nursing. The kitten may cough, sneeze, or have trouble nursing.

Some cleft palates escape notice until a kitten is eating solid food and lapping food up. If milk or food is inhaled, the kitten will likely develop aspiration pneumonia, which can cause significant illness and even death.

Kittens with a cleft palate do best with a feeding tube until treatment can be attempted. That may mean separation from the queen much of the time, but the use of a feeding tube can help to prevent aspiration pneumonia.

Affected kittens are generally diagnosed on their initial kitten physical exams. Clinical signs may tip off a knowledgeable breeder to check the litter. Rescues and shelters that deal with large numbers of kittens often quickly identify these defects as well.

Causes

A genetic predisposition for cleft

palates is suspected in some cat breeds, including Persians, Ragdolls, Siamese, Savannahs, Ocicats, and Norwegian Forest Cats. Female kittens are at higher risk than male kittens.

Other causes include:

- ▶ Illness in the queen during pregnancy

- ▶ Too much vitamin A or vitamin D in the queen's diet
- ▶ Exposure of a pregnant queen to certain medications, including corticosteroids and some antifungals

Treatment

Using a feeding tube and preventing the affected kitten from eating or drinking on his own until 3 to 4 months of age minimally (sometimes as long as 6 months of age) is best, according to the American College of Veterinary Surgeons.

Some defects will heal a bit on their

Guppy's Cleft Palate Repair Surgery at Cornell



Guppy was a 6-month-old kitten weighing just under 4 lbs. who was referred to the Cornell University Hospital for Animals by her attending veterinarian for a cleft palate repair.

Guppy was adopted at 3 days old by a veterinary assistant with experience in cat rescues. No other kittens in the litter had a cleft palate, and Guppy was otherwise healthy and normal.

Her owner said she first noticed Guppy dropping food when eating and, upon opening Guppy's mouth, saw a very long opening in her hard palate. Guppy was being hand fed with a red rubber feeding tube that was passed into her esophagus at the time. Her food was mixed with milk to make a slurry.

Guppy began eating on her own at around 3½ months of age, but she became very distressed if any food became stuck in the defect in her hard palate. At 5 months of age, Guppy developed bilateral yellow nasal discharge, fever, lethargy, anorexia, and sneezing. She was placed on the antibiotics for two weeks and the clinical signs resolved. A few days later, however, Guppy's clinical signs returned, and she was put back on antibiotics for over a month.

Since first noticing the defect in Guppy's hard palate, the owner told the veterinary surgical staff that it had narrowed and was smaller. Guppy had no other dental or oral abnormalities.

The surgery did not require any teeth to be pulled and was successful, leaving Guppy with normal facial symmetry and function. She returned home with her owner the same day, with plans for periodic rechecks at the Cornell University Hospital for Animals.

Guppy is now joyfully eating her food on her own.

own, but rarely to the extent that the defect disappears.

Surgery is the definitive treatment for a cleft palate. Waiting until an affected kitten has grown a bit before surgery is often recommended, and most kittens will require more than one surgery to completely fix the defect.

The first surgery often removes teeth to help free up tissue to make it available to cover the defect. The second surgery is usually the actual repair. Corrective surgery for cleft palates is best referred to a board-certified veterinary surgeon.

Surgeons have had to be creative

at times in fixing these defects, and complications are not unusual. Owners should be prepared for possible setbacks and long-term nursing care until healing is complete. Sadly, euthanasia is often chosen when a large defect is identified.

Postoperative care is intensive for three to four weeks, with tube feedings continuing, antibiotics often being prescribed, and Elizabethan collars necessary to prevent any rubbing. The kitten's activity will need to be closely monitored. No chewing, tugging on anything, or rubbing her face should be allowed. ■

Prevention

Care of the pregnant cat is important in avoiding cleft palates. She should be on a quality diet without too much vitamins A or D. Avoid the use of drugs known to cause developmental defects. Keep your queen semi-isolated and indoors to reduce the risk of her getting sick.

Check the kittens at birth so any clefts can be identified and appropriate therapeutic steps taken.

Feline Health Screening: Is It Necessary?

It's becoming an important part of cat breeding and holds great promise for the future

Research addressing heritable feline diseases has been limited compared to that in dogs, but the interest is there, and studies are ongoing. The more we can learn about heritable diseases, the better prepared we are to prevent them.

If you are looking for a purebred cat to add to your family, it is worth going to the Orthopedic Foundation for Animals (OFA) website to explore possible health testing for that breed and talking with

your veterinarian about what you find at the website.

Cats can be registered with OFA for cardiac, patellar luxation, and hip dysplasia testing. You can search the OFA database under a breed for all cats that have been tested for a particular disease or search by the name of a particular cat.

Patellar luxation requires manipulation by a veterinarian, hip dysplasia requires radiographs, and

cardiac evaluations require an exam by a board-certified veterinary cardiologist to be included.

Watching for Genetic Defects

In addition to the phenotypic traits that the OFA registry covers, there are some options for DNA testing, including tests that cover genetic defects your cat might be at risk of developing or be a carrier for. These diseases include vision problems, kidney disease, heart disease, and various metabolic disorders.

Genetic screening panels look at a wide range of feline diseases that are genetically mediated. While not inexpensive, they can be an efficient way to screen a cat for potential health issues that may develop. The companies that offer these screenings may retain some DNA material for future research, and if they do, they will usually inform you of this and ask your permission to do so.

These genetic panels also provide information about the genetics of coat color, blood type, and other aspects of a cat's morphology and physiology. Unfortunately, the genetic mechanisms of most feline diseases have yet to be determined.

Drawbacks

Nothing's perfect, of course, and the fact that some of these screening tests can be expensive is an important consideration. Some tests, like hip X-rays, are done once in a cat's lifetime. Other tests, like cardiac exams, may require periodic reevaluations.

Unfortunately, a cat's genetic information can be abused or be misinterpreted. For example, a cat who is identified as a carrier of a genetic mutation that has been associated with disease may be shunned by some



The OFA will require that you get radiographs, or X-rays, to register your cat for hip dysplasia screening. While it's helpful to have information on the sire and dam of your cat, it's not necessarily a requirement.