

Miraculous Recovery for Jaw-Dropping Puppy

Tyson, a French Bulldog pup, faced a life-altering cancer diagnosis and surgery. Discover the incredible journey and groundbreaking medical outcome that followed.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Tyson the French Bulldog puppy had too many troubles for a 3-month-old — while awaiting surgery to repair a cleft palate, the little guy was diagnosed with a cancerous tumor on his jaw
- Tyson's owners opted to go ahead with the cancer surgery first, which required the team at Cornell University's Dentistry and Oral Surgery Service to remove most of the pup's lower left jaw
- Tyson surpassed all expectations when his little body was able to regrow his left jawbone in the first reported case of its kind for dogs of any age or breed; next, he had his cleft palate repaired and then went on to graduate obedience class, pass his Canine Good Citizen test, and march in a Christmas parade
- The French Bulldog is the most popular dog breed in the U.S., and No. 4 in the U.K.
- Frenchies are fun-loving, affectionate, intelligent dogs, but it's important to recognize they are a brachycephalic breed, which means many live with a host of health challenges that reparative conformation breeders are attempting to reverse

It was spring 2023, and 3-month-old Tyson the French Bulldog pup was scheduled for surgery at Cornell University's Dentistry and Oral Surgery Service to repair a cleft palate. Unfortunately, the dog's local veterinarian diagnosed a cancerous tumor on his jaw before his scheduled procedure.

According to Cornell dentistry and oral surgery resident Alexandra Wright, who led the pup's care team:

*"Tyson's tumor was an oral papillary squamous cell carcinoma, which is a malignant cancer in dogs. **Oral squamous cell carcinoma** is the second-most common malignant oral tumor in dogs, and this papillary subtype has previously been reported in young dogs."¹*

Tyson Would Lose Most of His Lower Left Jaw to the Tumor

Wright had to explain to Tyson's owners, Melissa and Mike of Rochester, NY, that in order to successfully remove the tumor, she would also have to remove most of the puppy's lower left jaw. This would leave the little guy without a fully functioning lower jaw for the rest of his life.

"We didn't know if we wanted to put a puppy through all this. The prognosis at the time was uncertain," Melissa said.²

The good news was that Tyson's CT scans were clear, meaning the cancer hadn't metastasized to other sites in his body, so Melissa and Mike decided to give their pup a chance and agreed to the surgery.

Tyson Spontaneously Regrows His Jaw!

Despite earlier anecdotal cases of portions of jaws regenerating in young dogs, Tyson's medical team didn't feel this was a likely outcome due to the amount of bone they had to remove.

However, according to the case report on Tyson published in *Frontiers in Veterinary Science*,³ the little dog's recovery surpassed all expectations due to "a significant amount of periosteum, a thin membrane that covers bone surfaces, preserved during surgery. Periosteum contains blood vessels and nerves that support the bone and are crucial to the growth of the original mandibles."⁴

"This was likely imperative to the regeneration of new bone," Wright explained.

Another plus: the tumor was detected very early, But despite those benefits, the precise reason for **Tyson's jaw regrowth** is "a history-making mystery."

"More has to be done to understand the likelihood of this occurring in other dogs and if a specific age range makes a difference," Wright said, "but this case documents a very positive surgical outcome in a life-threatening situation."

Although the regrowth phenomenon has been documented in children, this is the first reported (vs. anecdotal) case of its kind for dogs of any age or breed.

Tyson Is Getting on With Life in a Big Way

So, does little Tyson's new jaw function as well as the original? Almost, though it will always be considered abnormal because it lacks certain features, such as the mandibular canal that houses major blood vessels and nerves, and teeth. But it's the same length as the jaw on the right, which prevents drifting, and best of all, there's no sign of cancer in the regenerated bone.

After his cancer surgery, Tyson underwent his previously scheduled procedure to address his cleft palate.

"He spent the majority of his puppyhood wearing an E-collar, not able to play with toys or chew on anything," said Melissa, who took him for walks around the house to keep him stimulated. "He was the best patient."

Tyson can't enjoy hard toys or hard food, but it's a small price to pay. He recently graduated from obedience class, passed his Canine Good Citizen test, and walked in a Christmas parade. Melissa and the medical team hope Tyson's story will benefit other dogs with a similar diagnosis.

"His case now demonstrates the possibility of complete bone regeneration when working with a patient this young," says Wright.

10 Fascinating Facts About French Bulldogs

1. **The French Bulldog is one of the most popular breeds in the U.K. and the U.S.** — The French Bulldog is the 4th most popular registered dog in the U.K.,⁵ and the most popular in the U.S.⁶

The small-sized Frenchie, as she is known, is a domestic dog and the result of crossbreeding bulldogs from England with local ratters in Paris starting in the 1800s.

2. **The first U.S. French Bulldogs were owned by society ladies** — Frenchies arrived in the U.S. in 1885, and their first owners were primarily society ladies who first showed them at the Westminster Kennel Club Dog Show in 1896.

By the early 1900s, the breed was very popular among members of high society, including the Rockefellers and the J.P. Morgans. By 1906, after having received very quick recognition by the American Kennel Club (AKC), the French Bulldog was listed as the 5th most popular dog breed in the U.S.

3. **The French Bulldog is uniquely appealing** — What's not to love about those huge bat ears? Beauty is in the eye of the beholder, of course, but the French Bulldog is undeniably a looker. He's small but sturdily built, with a muscular physique. Frenchies stand from 11 inches to a foot tall at the shoulder. Males weigh 20 to 28 pounds, females 16 to 24 pounds.

The French Bulldog coat is short, smooth, and shiny. The skin is loose, wrinkled, and soft to the touch. Frenchie coats come in a wide range of colors, including fawn, cream, and various shades of brindle.

4. **The Frenchie is sometimes called "frog dog" or "clown dog"** — The French Bulldog has an odd way of sitting with his hind legs spread out — thus the nickname "frog dog." Frenchies are also called "clown dogs" due to their fun-loving temperament.
5. **The French Bulldog coat is low maintenance** — The Frenchie coat is easy to groom and requires only an occasional brushing. These dogs are average shedders. As you groom your Frenchie, it's a good idea to check for any signs of a skin condition. You should also check her ears, eyes, and teeth for discharge or an unpleasant odor.

French Bulldogs don't naturally wear down their nails while walking or running, so regular nail trims are a must. They also need their facial folds kept clean and dry to prevent bacterial infection.

6. **French Bulldogs are fairly low energy** — Frenchies don't need tons of exercise, but daily walks and playtime are essential for your dog's physical health and mental stimulation. The breed is prone to heat exhaustion, so physical exertion should be avoided during the warmest hours of the day.

The French Bulldog is an intelligent free thinker, by turns eager to please or stubbornly independent. Training your Frenchie is essential, but make sure to keep sessions short and fun.

These little dogs are very loving, enjoy being the center of attention, and need to spend plenty of time with their humans each day.

7. **French Bulldogs become cold very easily** — Your Frenchie's coat is short and single-layered, which means she can get chilled in a hurry. She may need a doggy sweater indoors during the cooler months of the year and will definitely need a sweater or coat when she goes outside.

Since she's prone to **heatstroke**, during warm weather she should be indoors where it's cool (but not TOO cool), which will help regulate her body temperature.

8. **Frenchies are quiet dogs** — The French Bulldog isn't known for barking excessively. Their quiet nature coupled with their small size and low need for exercise makes them a great choice for apartment dwellers.

Frenchies do tend to drool quite a bit and are also known to be gassy and sometimes difficult to housetrain.

9. **French Bulldogs generally do very well with children** — Frenchies are sweet-natured, excellent companions. They are patient and affectionate, and females in particular are protective of the children in the family. They make wonderful watchdogs, but they can become territorial without proper guidance.

French Bulldogs can also easily live with other pets as long as everyone has been properly socialized.

10. **The French Bulldog has an average lifespan of 10-12 years** — Because they are a brachycephalic breed with a compacted airway and bulky body, Frenchies are unable to effectively regulate their body temperature. This is why they must be closely monitored and cared for during hot weather.

This breed is also prone to several inherited diseases, including **brachycephalic syndrome** (which likely played a role in Tyson's cleft palate), hip dysplasia, hemivertebrae (a malformation of one or more vertebrae that causes it to be shaped like a wedge or triangle), patellar luxation, intervertebral disc disease (IVDD), and allergies.

Thanks to this breed's popularity, overbreeding with inadequate attention to genetic diversity is common. This means poorly-bred Frenchies are the norm, which is why it's of utmost importance to only rescue or support breeders who are aggressively working to correct breed flaws, including brachycephalic airway obstruction syndrome (BOAS). If you decide to buy a French bulldog puppy, only partner with a heritage or functional breeder who can happily and proudly answer all **20 questions** in my breeder questionnaire.

Sources and References

[Wikipedia](#)

[Dogtime.com](#)

^{1,2,4} [Cornell Chronicle, February 1, 2024](#)

³ [Wright, A.L. et al. Front. Vet. Sci., 11 October 2023, Sec. Veterinary Dentistry and Oromaxillofacial Surgery, Volume 10 - 2023](#)

⁵ [Dogster, May 28, 2024](#)

⁶ [AKC.org](#)
