

## The Race Against Time to Save 'Flat-Faced' Pets

Is it too late to reverse the damage already done to certain brachycephalic, or 'brachy,' breeds? Organizations in both the UK and US are racing to raise awareness and reduce both the popularity and negative impacts in these threatened breeds, some of which are truly suffering.

**Analysis by Dr. Karen Shaw Becker**

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### STORY AT-A-GLANCE

- Brachycephalic dog breeds have flat or pushed-in faces that predispose them to serious health conditions, especially brachycephalic obstructive airway syndrome (BOAS)
- The English Bulldog is the “poster dog” for bad breeding practices that destroy the health of the breed; in addition to BOAS, these dogs suffer from a long list of other health problems unrelated to their short muzzles
- In the U.K., the Brachycephalic Working Group (BWG) is introducing health testing, including the Respiratory Function Grading Scheme (RFGS) as part of a new strategy to reduce the popularity and negative impacts of brachycephaly in dogs
- The U.S.-based Orthopedic Foundation for Animals (OFA) has joined the international effort and has licensed the RFGS for use in the U.S. and Canada
- Returning breed standards to healthy standards is the only way to turn this unconscionable situation around; it's an effort that will require the dedication and cooperation of breeders, veterinarians, and prospective owners of brachycephalic dogs

Over the years, I've written many articles about the poor breeding and resulting health problems of brachycephalic (flat-faced) dogs (and cats). It's important to realize that brachy breeds are intentionally bred to look the way they do, with a normal lower jaw but a compressed upper jaw. Due to their altered facial construction, a majority of these dogs have a condition called brachycephalic obstructive airway syndrome to varying degrees.

### Brachycephalic Obstructive Airway Syndrome (BOAS)

BOAS describes a number of upper respiratory problems affecting the nose, mouth and throat of dogs as a result of abnormal skull structure. The issues start with the dog's nostrils, which are often very small, scrolled tight and so narrow it can be hard to move air in through them.

There's also an elongated soft palate, which means the flap of skin at the back of the throat behind the hard palate is elongated, causing much of the characteristic snorting and other respiratory sounds often heard in brachy breeds.

Often the windpipe is very narrow in places, which leads to a condition called tracheal stenosis, or narrowing of the trachea. This problem can predispose these dogs to tracheal collapse, as well as problems with anesthesia. If you have a flat-faced dog, be sure he or she has been cleared to undergo anesthesia before you agree to any veterinary surgery

or other procedure that requires your pet to be anesthetized.

Because of the upper airway challenges of brachy dogs, they often don't pant efficiently. Panting is how dogs cool their bodies down (they don't sweat, they pant). This issue makes brachys prime candidates for heatstroke, and it's important to take precautions if your pet has to travel by car, since he'll have more difficulty in a hot vehicle than other dogs.

And air travel may not even be an option, since due to the risks involved and a number of tragic incidents in recent years, some airlines have started banning flat-faced pets from flying.

Of the two-dozen or so brachycephalic breeds, the English Bulldog is arguably the most tragic example of the suffering imposed by humans determined to exaggerate certain physical features to the detriment of the dogs' health.

## Poster Pup for Poor Breeding



By: [Science and Dogs](#)

According to veterinary journal dvm360:

*"They can't fit through their mothers' birth canals. They're plagued by serious respiratory problems because they are brachycephalic. They die at a median age of a little over 8 years of age."*<sup>1</sup>

Not only do English Bulldogs have brachycephalic syndrome due to their pushed in faces, they're also prone to a long list of other health problems, including:<sup>2</sup>

- Flat chest, a chest bone deformity in which the middle of the chest appears to be flat or concave, rather than slightly rounded
- Splayed legs, a condition in which the muscles that pull the legs together are weak, causing the dog to lie flat on the floor and paddle around like a turtle
- Cleft palate, in which the roof of the mouth and/or lip fail to close during gestation
- Chondrodysplasia, a skeletal disorder that can cause hip and elbow dysplasia as well as other joint and spinal problems
- Dental, eye, skin, heart, and immune system problems

English Bulldogs rank second of all breeds in congenital diseases and related deaths among puppies. The health problems of these poor dogs are well documented and are present from conception through adulthood.

## The Damage to This Breed Is Likely Irreversible

A few years ago, a group of researchers at the University of California, Davis analyzed the DNA of 102 English Bulldogs, including 87 dogs from the U.S. and 15 from other countries.<sup>3</sup> They did a genetic comparison of those dogs with another 37 English Bulldogs brought to UC Davis for various health problems.

The study was the first large-scale assessment of the genetic diversity of English Bulldogs that used DNA rather than pedigrees. Study results confirmed a number of large regions of the genome have been altered as a result of centuries of breeding designed to manipulate and exaggerate the breed's appearance.

Sadly, the researchers concluded it would be extremely difficult, if not impossible to return the breed to good health.

*"We were taken back by how little 'wiggle room' still exists in the breed for making additional genetic changes," said lead researcher Niels Pedersen, DVM, PhD, of the UC Davis Center for Companion Animal Health.<sup>4</sup>*

## U.K. Animal Advocates Are Leading the Charge for Change

Now for some good news ... Animal advocates in the U.K. have been a leading voice in discouraging an unending supply of brachy dogs with devastating health conditions. Most recently, the U.K. Brachycephalic Working Group (BWG) is considering mandatory health testing as part of a new strategy to reduce the popularity and negative impacts of brachycephaly in dogs.

According to the U.K. publication VetTimes, "Prospective owners will also be urged to 'stop and think' in a new promotional campaign, while a ban on the use of brachycephalic dogs in advertising is also being sought."<sup>5</sup>

The BWG's updated strategy through 2024 will attempt to dramatically reduce the numbers and popularity of brachy dogs, promote more moderate/healthier phenotypes, and reduce negative impacts on existing dogs with health problems.

Dan O'Neill, BWG chairperson, considers the issue one of the main dog welfare priorities in the U.K.

Proposed actions include introducing mandatory health testing of all Pugs, French Bulldogs, and English Bulldogs, developing an action plan for health improvements to include the use of sub-populations and alternative gene pools, and reviewing/reforming breed standards to encourage all participants in dog shows to promote and reward healthy animals.

Another goal of the BWG is to raise the number of respiratory function grading assessments conducted by veterinarians.

## Respiratory Function Grading for Brachy Breeds

A few years ago, the University of Cambridge and The Kennel Club in the U.K. developed the **Respiratory Function Grading Scheme** as a tool to objectively measure the severity of BOAS in dogs, aid in diagnosis, enhance understanding of the condition, increase awareness, and ultimately reduce the incidence of disease.

More recently, the U.S.-based nonprofit **Orthopedic Foundation for Animals** (OFA), has joined the international effort and has licensed the RFGS for use in the U.S. and Canada. The OFA is instituting **respiratory function grading** of brachycephalic breeds as one of its health screening tests.<sup>6</sup>

The goal of the RFGS is to identify healthy dogs and separate them out from dogs with severe BOAS. The exams are performed by specially trained veterinarians and include 4 steps:

- A short health survey
- A brief physical examination while the dog is calm
- A brisk 3-minute walk
- A post-walk auscultation (listening with a stethoscope)

The RFGS uses a **scale of 0 to 3** to diagnose BOAS. Dogs with a grade of 0 or 1 are considered normal, while dogs with a grade of 2 or 3 are abnormal and symptomatic of the condition.

One of the goals of the program is to help bring conscientious breeders together with veterinarians who can examine their dogs and certify whether they have normal respiratory function. Dogs with a certain level of respiratory difficulties should be bred with caution or even prevented from breeding.

In the OFA's view, responsible breeders can use the RFGS grades and guidelines to apply selective genetic pressure to reduce the chances of producing puppies affected by BOAS. As Eddie Dziuk, chief operating officer of OFA, points out, "With smarter breeding decisions, you could hopefully begin to minimize the incidence of the disease."<sup>7</sup>

If you decide to purchase a purebred dog, I strongly recommend finding a preservation breeder that is focused on reparative genetics. Use my **20-point breeder questionnaire** to guide you to ethical breeders.

## **Veterinarians and Breeders Play a Critical Role**

The RFGS program was developed by Dr. Jane Ladlow at the University of Cambridge, who trained an initial core examiner team of two veterinarians. There was an extensive debrief with Ladlow after each pilot examination to ensure consistency in examination protocol, examination administration, and grading.

While all veterinarians have the skills to perform the assessment, the OFA is taking a top-down approach that involves trainees shadowing mentors to ensure inter-veterinarian reliability.

*"The same dog under similar conditions on the same day should achieve the same grade," says Dziuk.*

The OFA hopes to gradually increase the pool of available approved veterinarian examiners so that more testing can be performed across the U.S. and Canada. At the present time, there are no plans for virtual training, given the need for in-person shadowing.

Since the RFGS is licensed from The Kennel Club, the OFA will use the same grading scheme and program materials and has agreed to share the results with The Kennel Club as part of the international collaboration.

*"It's an international effort to collect data from all over the world, to allow for better breeding decisions across the world, across borders," Dziuk said. "And hopefully there's data that may lead to better therapeutics and better treatment programs."*

In addition, in my opinion returning breed standards to healthy standards is the very best way to turn this unconscionable situation around. All breeders need to begin selecting breeding animals for good health, first and foremost. I also believe more veterinarians should be referring their clients in search of puppies to educational websites such as **PupQuest** that help prospective dog owners understand these issues before they make an impulse purchase.

Even more promising are worldwide joint initiatives such as the **International Partnership for Dogs** that facilitates communication and collates resources, information and results for the **harmonization of genetic testing** between testing facilities, breed clubs, breeders, veterinarians and concerned pet parents. Change can happen, but it will take the concerted effort of all these groups for the health of our purebred dogs to improve.

## Sources and References

<sup>1, 2</sup> [dvm360, August 8, 2016](#)

<sup>3</sup> [Canine Genetics and Epidemiology 2016 3:6 Published 29 July 2016](#)

<sup>4</sup> [UC Davis, July 28, 2016](#)

<sup>5</sup> [VetTimes, December 13, 2022](#)

<sup>6, 7</sup> [American Veterinary Medical Association \(AVMA\), January 30, 2023](#)

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