



WHAT CAN WE DO TO HELP THE EYES OF OUR BRACHYCEPHALIC PATIENTS?

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Introduction

Brachycephalic dogs, such as Pugs, French Bulldogs, English Bulldogs, Shih Tzus, and Pekingese, are extremely popular worldwide. Unfortunately, the very traits that make them attractive to many owners—large protruding eyes, short noses, and flattened faces—also predispose them to a variety of ocular problems. Their shallow orbits, large palpebral fissures, nasal folds, and globe prominence, among other facial and ocular characteristics, create chronic exposure of the ocular surface and a high risk of painful and vision-threatening disease. For veterinarians, the challenge is not only to treat disease once it is present, but to prevent it, to educate owners, and to advocate for better welfare practices in breeding.

Preventive Strategies – The Core of Management

Prevention must be the guiding principle in the ophthalmic care of brachycephalic dogs. Instead of waiting for ulcers, keratitis, or pigmentary changes to appear, veterinarians should implement strategies that anticipate these problems. Preventive care is multifactorial, combining screening, medical and environmental management, surgery when needed, and collaboration with breeders and owners. Below, each component is presented in a structured way—like an outline—but with explanatory notes that provide context and narrative.

1. Routine Ophthalmic Screening

- **Why:** Screening is the cornerstone of prevention, allowing detection of early pigment deposition, subtle keratitis, tear film instability, or eyelid conformation problems before they progress.
- **How:** Annual or bi-annual examinations should be recommended. General practitioners play a crucial role in encouraging baseline ophthalmic assessments in young brachycephalic dogs.
- **Impact:** Early referral to an ophthalmologist enables risk stratification and individualized plans—deciding if medical management is sufficient or whether preventive surgery should be



considered. This proactive approach often changes the trajectory of disease, preventing painful and irreversible complications.

2. Preventive Medical and Environmental Management

- Chronic lubrication: Regular use of artificial tears or gels with long retention time helps compensate for incomplete blinking and lagophthalmos.
- Environmental precautions: Owners should avoid exposing their dogs to direct air conditioning or heating, as these conditions accelerate tear evaporation.
- Before grooming: Apply lubricants before grooming sessions to protect the cornea from hair, products, or instruments.
- Grooming practices: Trim periocular hairs that contact the cornea, and keep nasal folds clean and dry.
- Daily hygiene: Gentle cleaning of the eyes and skin folds reduces irritation and lowers infection risk.
- Narrative: These measures seem simple but require strong commitment from owners. Veterinarians must stress their importance and provide clear, practical instructions to ensure they are followed consistently.

3. Preventive Surgical Management

- Why: Even with good medical care, many dogs benefit from surgical procedures that permanently improve corneal protection.
- Most common techniques:
 - Medial canthoplasty shortens the palpebral fissure, reduces lagophthalmos, and corrects medial entropion.
 - Nasal fold resection eliminates trichiasis and chronic irritation.
 - Medial entropion correction.
- When: Early to middle age is the best window, before chronic keratitis and ulceration develop.
- Challenge: Owners may hesitate to authorize surgery when the dog appears comfortable. Both generalists and ophthalmologists need to explain that these procedures are preventive, designed to avoid future suffering, not to solve an immediate crisis.
- Narrative: Showing examples and photographs of advanced disease can be persuasive. Preventive surgery reframes treatment as proactive welfare rather than reactive medicine.

4. Genetics, Breeding, and Collaboration with Breeders

- Genetic counseling: Advise against breeding dogs with severe ocular or conformational abnormalities.



- Breeder collaboration: Work with responsible breeders to gradually shift towards healthier traits—deeper orbits, smaller fissures, less pronounced nasal folds.
- Veterinary role: Participate in breed health committees, provide prevalence data, and support reforms in breed standards.
- Narrative: While progress is slow, only by addressing the root cause—extreme conformation—can we reduce disease prevalence in future generations.

5. The Role of Veterinarians and Client Education

- Veterinarians as educators: Every consultation is an opportunity to discuss preventive care, even if the dog looks healthy.
- Client perception: Owners often question why interventions are needed when their dog shows no signs of discomfort. Clear, empathetic communication is key.
- Daily care instructions: Provide detailed, practical guidance on lubrication schedules, environmental adaptation, grooming, and hygiene.
- General practitioners' role: As the first point of contact, they must recognize risk factors and refer appropriately.
- Narrative: By empowering owners with knowledge and explaining the long-term consequences of inaction, veterinarians help them make informed choices and foster compliance.

Key Take-Home Message

Prevention is the backbone of ophthalmic care in brachycephalic dogs. It begins with routine screening, continues with medical and environmental management, may require preventive surgery, and extends into breeding practices and education. Success depends on a strong alliance between general practitioners, specialists, breeders, and owners. Only through this comprehensive approach can we reduce suffering and improve the quality of life for these much-loved but vulnerable patients.