**Disorder Predispositions and Protections**

A predisposition describes any disorder with increased risk, and a protection describes any disorder with decreased risk in flat-faced dogs compared to non-flat-faced dogs.

### Flat-faced dogs
- Average age: 3.3 years
- Average bodyweight: 8.8kg
- Number of flat-faced dogs in study: 4,169 (19%)

### Non-flat-faced dogs
- Average age: 4.7 years
- Average bodyweight: 18.8kg
- Count of breeds in study: 235

**Most common flat-faced breeds in study (%)**
- Chihuahua: 12.9
- Shih-tzu: 10.4
- Pug: 9.9
- French Bulldog: 9.6

**Most common non-flat-faced breeds in study (%)**
- Labrador Retriever: 12.3
- Staffordshire Bull Terrier: 10.8
- Jack Russell Terrier: 1.8
- Yorkshire Terrier: 1.1

*In addition to 5,994 (33.2%) crossbreeds

**Relative risk in flat-faced dogs**
- Eye surface ulcer: $\times 8.4$
- Heart murmur: $\times 3.5$
- Umbilical hernia: $\times 3.2$
- Inflamed paw: $\times 1.7$
- Skin cyst: $\times 1.5$
- Slipping kneecap: $\times 1.4$
- Ear infection: $\times 1.3$
- Anal sac impaction: $\times 1.2$
- Claw injury: $\times 0.5$

**CONCLUSIONS:**
- **RESEARCH ANSWER:** Flat-faced dogs are generally less healthy than non-flat-faced dogs.
- Flat-faced dogs overall are perceived to show less undesirable behaviours - this may partially explain their popularity.
- Flat-faced breeds are popular in the UK, comprising of 19% of all dogs.
- The public should follow the advice of breed clubs, veterinary bodies and charities by thinking twice before purchasing a flat-faced dog.
- **Home message:** "Stop and think before buying a flat-faced dog."
- Owners of flat-faced dogs should monitor for problems with their dogs’ eyes very carefully.

**Disorder and Risk Calculations**

**Eye surface ulcer**
- Flat-faced dogs had increased risk of $8/30 (26.7\%)$ of the most common disorders compared to non-flat-faced dogs.

**Skin cyst**
- Flat-faced dogs had reduced risk of $2/30 (6.7\%)$ of the most common disorders compared to non-flat-faced dogs.

**Relative risk**
- The relative risks of various disorders in flat-faced dogs compared to non-flat-faced dogs are shown above.

**HEALTH STUDY RESULTS**

- **Number of non-flat-faced dogs in study:** 18,079 (81%)
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**RESEARCH QUESTION:** How does the health of flat-faced dogs compare to the health of non-flat-faced dogs?

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- **RESEARCH ANSWER:** The public should follow the advice of breed clubs, veterinary bodies and charities by thinking twice before purchasing a flat-faced dog.

**CLICK FOR FREE ACCESS TO THE FULL STUDY**