

## Functional Grading of BOAS (Veterinary examination instructions)

		Respiratory noise <sup>a</sup>	Inspiratory effort <sup>b</sup>	Dyspnoea/ Cyanosis/ Syncope <sup>c</sup>
<b>Grade 0</b>	Pre-ETT	Not audible	Not present	Not present
	Post-ETT	Not audible	Not present	Not present
<b>Grade I</b>	Pre-ETT	Not audible or mild	Not present	Not present
	Post-ETT	Mild	Not present to mild	Not present
<b>Grade II</b>	Pre-ETT	Mild to moderate	Mild to moderate	Not present
	Post-ETT	Moderate to severe	Moderate to severe	Mild dyspnoea; cyanosis or syncope not present
<b>Grade III</b>	Pre-ETT	Moderate to severe	Moderate to severe	Moderate to severe dyspnoea; may or may not present cyanosis. Inability to exercise.
	Post-ETT	Severe	Severe	Severe dyspnoea; may or may not present cyanosis or syncope.

ETT= exercise tolerance test

The clinical grading was based on respiratory signs before (pre-ETT) and immediately after the exercise tolerance test (post-ETT). ETT should be performed by the vets with trotting speed approximately 4-5 miles per hour for 3 minutes. If the dog refuses 3 times due to inability to exercise (rather than urination or sniffing stops), the test is failed.

<sup>a</sup> Respiratory noise (i.e. stertors and stridor) was diagnosed by pharyngolaryngeal auscultation. **Mild**: only audible under auscultation; **moderate**: intermittent audible noise that can be heard without stethoscope; **severe**: constant audible loud noise that can be heard without stethoscope.

<sup>b</sup> An abnormal respiratory cycle characterized by evidence of increased effort to inhale the air in with the use of diaphragm and/or accessory muscles of respiration and/or nasal flaring with an increase in breathing rate. **Mild**: regular breathing patterns with minimal use of diaphragm; **moderate**: evidence of use of diaphragm and accessory muscles of respiration; **severe**: marked movement of diaphragm and accessory muscles of respiration.

<sup>c</sup> Dogs that have had episodes of syncope and /or cyanosis as documented by owner's report are classified into Grade III without ETT. **Mild dyspnoea**: presents sign of discomfort; **Moderate dyspnoea**: irregular breathing, signs of discomfort; **severe dyspnoea**: irregular breathing with signs of breathing discomfort and difficulty in breathing.

### Test Result reference:



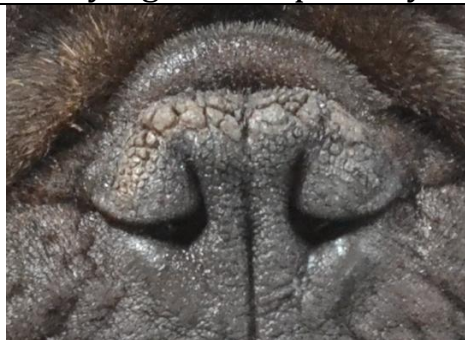

**Grade 0** – BOAS free; annual health check is suggested if the dog is under 2 years old

**Grade I** –BOAS unaffected but with mild respiratory signs, annual health check is suggested if the dog is under 2 years old.

**Grade II** – BOAS affected with moderate respiratory signs. The dog has clinically relevant disease, requiring medical attention (i.e. management that may include weight loss and/or surgical intervention)

**Grade III** –BOAS affected with severe respiratory signs. The dog should have veterinary examination with surgical intervention.

**Brachycephalic nostrils assessment  
(Veterinary Instructions)**

<b>Open for the breed- acceptable - Grade 1</b>	
	Wide open nostrils.
<b>Mild stenosis- acceptable unless the dog shows additional signs of respiratory compromise - Grade 2</b>	
	Slight narrowing of the nostrils. When the dog is doing exercise, the nostril wings should be able to move dorso-laterally to open on inspiration.
<b>Moderate stenosis- not acceptable if accompanied by mouth breathing or any signs of respiratory compromise - Grade 3</b>	
	The dorsal part of the nostril wings touch the nasal septum and the nares are only open at the bottom of the nostrils. When the dog is doing exercise, the nostril wings are not able to move dorso-laterally and there may be nasal flaring (i.e. muscle constriction around the nose trying to enlarge the nostrils )
<b>Severe stenosis- not acceptable - Grade 4</b>	
	Nostrils are almost closed. The dog may switch to oral breathing from nasal breathing with very gentle exercise or stress such as playing.