



## Neurology/NeuroSurgery

**Stephen B. Lane, DVM**

Diplomate ACVIM-Specialty of Neurology  
Veterinary Neurology/Neurosurgery

### **Propranolol**

Propranolol is a nonspecific beta-blocker used in veterinary medicine as an antiarrhythmic agent. Propranolol blocks both beta-1 and beta-2 adrenergic receptors in the myocardium, bronchi, and vascular smooth muscles. Propranolol possesses membrane-stabilizing effects (quinidine-like). Beta-adrenergic neurons act as reflex modulators in the dog and cat. It is these reflex arc effects that modulate abnormal or excessive muscle tremors. The use of Propranolol in veterinary neurology has been limited to the therapy of idiopathic cerebellitis and resting tremors.

Propranolol is contraindicated in patients with overt heart failure or hypotension. Propranolol should also be used cautiously in patients with significant renal or hepatic insufficiency. The use of Propranolol with pregnant and lactating animals should be discouraged. Recheck assessment will allow for dosage adjustments based upon cardiovascular and neurological findings.