



Hypotension in Dogs and Cats Cheat Sheet

Treat the patient, not the machine readings alone. Treatment guidelines listed here are as indicated and patient/situational dependent.

Investigate

SAP < 80 to 90 mm Hg

DAP < 40 mm Hg

MAP < 60 to 70 mm Hg

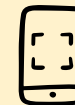
Potential Causes

- Drugs including excessive anesthetic depth
- Comorbidities (e.g. cardiac disease)
- Vasodilation
- Hypothermia
- Hypovolemia (e.g. blood loss, severe dehydration)
- Anemia
- Hypoproteinemia
- Hypoglycemia
- Electrolyte or acid-base abnormalities
- Shock: hypovolemic (e.g. severe blood loss, extreme dehydration), cardiogenic (e.g. DCM, arrhythmia), distributive (e.g. excessive vasodilation, sepsis, anaphylaxis), obstructive (e.g. GDV, pericardial effusion, pleural effusion, tension pneumothorax)
- Cardiopulmonary arrest

Treatment Guidelines

- **Decrease inhalant dose**
- **Adjunct analgesic** (e.g. opioid, local block) for inhalant-sparing effect which may permit further decreasing inhalant dose
- If concurrent bradycardia, **anticholinergic** (e.g. atropine 0.02 to 0.04 mg/kg IV or glycopyrrolate 0.005 to 0.01 mg/kg IV) ***caution if alpha-2 agonist was administered*** or sympathomimetic (e.g. ephedrine 0.1 to 0.2 mg/kg IV diluted bolus)
- If hypovolemia, and if possible ***caution if cardiac or renal disease***, increase **IV fluid** rate and/or IV fluid bolus dose using a balanced isotonic crystalloid (e.g. LRS) 3 to 10 mL/kg IV (low end in cats) over 5 to 15 min and repeat once if needed, hypertonic saline 2 to 4 mL/kg IV over 5 to 15 min, or consider colloid 5 to 10 mL/kg IV in dogs and 1 to 5 mL/kg IV in cats over 10 to 15 min titrated to effect ***caution with colloid risks***.
- If excessive vasodilation, **vasopressor** (e.g. ephedrine 0.1 to 0.2 mg/kg IV diluted bolus, phenylephrine 0.3 to 1 mcg/kg/min IV CRI or 1 to 3 mcg/kg IV intermittent boluses, or norepinephrine 0.05 to 0.3 mcg/kg/min IV CRI).
- If decreased cardiac contractility, **positive inotrope** (e.g. ephedrine 0.1 to 0.2 mg/kg IV diluted bolus, dopamine 1 to 15 mcg/kg/min IV CRI, or dobutamine 1 to 10 mcg/kg/min IV CRI).
- Active warming, blood transfusion, correct any electrolyte or acid-base abnormalities, treat shock, CPR, etc.
- Consider **reversal**

Hypotension can result in tissue and organ (e.g. kidney) hypoperfusion.



See the **Vetpocket app** for our Fluid Therapy, Hypovolemic Shock, CPR and Blood Gas Calculators + Reference Material!

