**ANALYSIS DEPRESSES VITAL FUNCTIONS**

Monitoring equipment is now affordable for veterinary medicine and is highly beneficial as good monitoring draws immediate attention to issues at an early stage.

Frequent and regular measurements are vital.

A STAFF MEMBER DEDICATED TO MONITORING IS MORE IMPORTANT THAN EQUIPMENT.

e.g. SIMPLE pulse palpation + pulse oximetry may decrease anaesthetic-induced mortality.

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**WHAT SHOULD I MONITOR?**

**AIRWAY**

Airway must be patent

- Check respiration is smooth & easy
- Chest movement and movement of rebreathing bag should match
- Use capnograph and pulse oximeter (Fig 1 and 2)

**BREATHING**

Require enough for gas exchange – \( \text{O}_2 \) \& \( \text{CO}_2 \)

- Breathing rate:
  - Low - Too deep/respiratory depression? Poor brain perfusion?
- Breathing pattern:
  - Jerky & laboured - airway (partially) blocked? Patient too deep?
  - If respiration is inadequate – VENTILATE (best to intubate if not already in place)

**CIRCULATION**

Require adequate perfusion to supply tissues with oxygen

- Heart rate:
  - Low - Too deep? Drug effect? Vagal stimulation?
- Pulse:
  - Difficult to feel - Too deep? Hypovolaemic?

Use pulse oximeter, capnograph, ECG, monitor BP (Fig 3)

If circulation is inadequate – reduce anaesthetic, supply fluids

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**WHAT ELSE?**

- DEPTH OF ANAESTHESIA: (Fig 4)
- TEMPERATURE
- FLUID BALANCE: (Fig 5)

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**WHAT DOES THE EQUIPMENT TELL YOU?**

Pulse oximeter (PO): How much \( \text{O}_2 \) is in the blood (\( \text{SpO}_2 \)), peripheral pulse strength (Fig 6)

Capnograph: Expired & inspired \( \text{CO}_2 \) = adequacy of respiration & circulation

Blood pressure: Adequacy of circulation (combined with pulse ox. and capnography) (Fig 7)

ECG: Reflects electrical activity of the heart ONLY, rhythm information but NO circulation info (Fig 8)

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