



Capnography

EMT-Basic

Advanced EMT

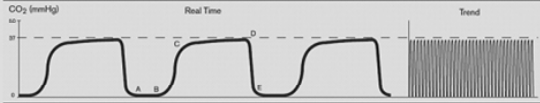
Paramedic

PROCEDURE

- ❑ Attach side-stream or main-stream sensor line orange CO₂ connector to ZOLL monitor via side port
- ❑ Ensure monitor capnography function indicates ON - CO₂ box on screen should greenlight -if not press softkey CO₂ to engage
- ❑ Wait for '0' reading to appear, then attach sensor to patient or airway device
- ❑ Assess waveform and value displayed on the monitor - **reassess** each time patient is moved or transferred
- ❑ Document waveform, trends, and values

REFERENCE GRAPHICS

Normal Capnogram

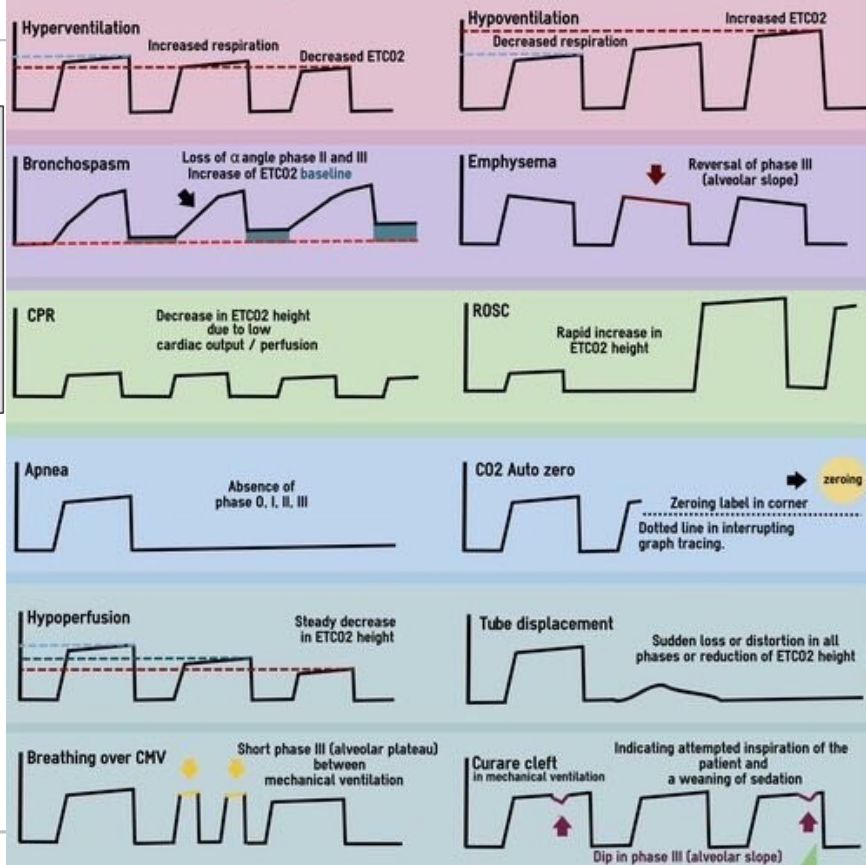


The "normal" capnogram is a waveform which represents the varying CO₂ level throughout the breath cycle.

Waveform Characteristics:

A-B	Baseline	D	End-Tidal Concentration
B-C	Expiratory Upstroke	D-E	Inspiration
C-D	Expiratory Plateau		

Normal EtCO₂: 35 – 45 mmHg



New Chart



- * Waveform capnography should be continued throughout patient care
- * Goal for placement: within 3 minutes of indication
- * Contact OLMC for TOR guidance when EtCO₂ values of zero recur or persist after troubleshooting

TROUBLESHOOTING

- If EtCO₂ is **less than 5 mmHg**, assess functionality of sensor and troubleshoot:

D

isplacement

Ensure airway is properly seated, re-seal to prevent leakage, secure airway in place to prevent movement

O

bstruction

Remove secretions or emesis, suction if able, consider replacing the airway

Check for kinks, snags, secretions in sensor line

P

neumothorax

Assess lung sounds, evaluate bagging effort. If pneumothorax is suspected or indicated, perform needle decompression

E

quipment

Replace sensor. Evaluate airway for failure or damage. If unsuccessful, reevaluate **DOPE**

- If above attempts fail, consider using colormetric EtCO₂. If no color change is observed, assume airway is dislodged or misplaced.
- If unable to resolve EtCO₂ readings, remove advanced airway. In cases of BVM producing low readings, consider *placing* advanced airway.

INDICATIONS

- **All** patients at risk for, or needing assessment of, hypoventilation or respiratory compromise
- BVM ventilation and/or advanced airway placement (IGEL, King, ETT, etc)
- Patients with the following presentations or treatments:
 - ❖ Altered mental status
 - ❖ Respiratory distress
 - ❖ Procedural sedation
 - ❖ Chemical restraint
 - ❖ Sepsis
- **Provider judgment** based on patient presentation



Want to know more about capnography:

litfl.com/capnography-waveform-interpretation/

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