

ETCO₂ Information

The information below & attached assist your staff on how/why it is important to monitor ETCO₂ during procedures.

When a customer asks, "What are my options for capturing an ETCO₂ sample during a procedure", I typically share the following...

In order get an ETCO₂ sample [exhaled/expired carbon dioxide from patient] you will need a vehicle to carry the sample from the patient to the monitor.

3 vehicle choices...

1. **Divided Nasal Cannula** - This method allows the patient to receive oxygen on one side of the nostril insert, while pulling a sample of exhaled/expired ETCO₂ from the other side.
**The sample is pulled from the nasal cannula into to the sample line, the water trap and is then is analyzed by the monitor.*
2. **Sample Line Only** - The luer lock end of sample line (doesn't matter which end) is removed (cut) and the sample line is taped under the nostril of the patient.
**The sample is pulled from the sample line to the water trap and is then is analyzed by the monitor.*
3. **Nasal Hood with Luer Lock** (sample picture attached)-If doctor is delivering Nitrous Oxide (N₂O), I share the attached picture along with the basic directions of...
 - a. Punch a hole in the rubber mask on the doctor's non-working side (use a cylindrical object smaller than the luer lock...18 ga needle or leather punch work well)
 - b. Insert metal luer lock (non-connecting luer lock side) in the hole
 - c. Connect one end of the sample line to luer lock on the mask
 - d. Connect the other end to the sample line to the water trap
 - e. The water trap is inserted into the left side of the monitor.**The sample is pulled from the nasal hood into to the sample line, the water trap and is then is analyzed by the monitor.*

When the sample is pulled from the patient and received by the monitor it does 2 things...

1. Show instantaneous feedback to breath in a waveform on the monitor screen
2. Analyzes the sample taken using a non-dispersive infrared auto-calibrating technology to provide a numerical value [mmHg, percentage, kPa, Torr]
**mmHg is the most popular and preferred method by most.*

I have attached 2 additional files that should be useful in your education...

1. Image of a nasal hood with luer lock adapter...
images not endorsed by Criticare Systems, Cardiac Science, or Opto Circuits.
2. A capnography slide presentation (PDF) that I found searching the internet that will further educate your staff on capnography...
content not endorsed by Criticare Systems, Cardiac Science, or Opto Circuits.