

## REBREATHING SYSTEMS

### PROS:

- CONSERVE ON HEAT
- CONSERVE ON MOISTURE
- CONSERVE ON O<sub>2</sub>
- CONSERVE ON ANESTHETIC AGENT (ISO, SEVO)

### CONS:

- MECHANICAL DEAD SPACE
- CHANGING CO<sub>2</sub> ABSORBENT MATERIAL
- TAKES LONGER TO CHANGE FROM LOWER CONCENTRATION TO HIGHER (THAN NRB SYSTEM)
- MORE RESISTANCE IN SYSTEM (THAN NRB SYSTEM)

## NON-REBREATHING SYSTEMS

### PROS:

- NO MECHANICAL DEAD SPACE
- CHANGE CONCENTRATION OF ANESTHETIC QUICKLY
- NO RESISTANCE TO BREATHING
- UNIVERSAL CONTROL ARM MEASURES AIRWAY PRESSURE
- CAN BE USED WITH MECHANICAL VENTILATOR

### CONS:

- USES MORE O<sub>2</sub> THAN RB SYSTEMS
- USES MORE ANESTHETIC AGENT THAN RB SYSTEMS
- DOES NOT CONSERVE ON HEAT – COLD O<sub>2</sub> TAKES BODY HEAT AWAY
- DOES NOT CONSERVE ON MOISTURE

In perspective, the cost of O<sub>2</sub> is roughly \$0.01 per liter (in H-tanks). Isoflurane cost is approximately \$0.10 per cc. One will use 6cc liquid anesthetic at 1 LPM flow and 2% concentration in 1 hour. That is about \$0.60 for Isoflurane and \$0.60 for O<sub>2</sub> or a total of \$1.20 per hour. The higher the flow rate, the more Isoflurane and O<sub>2</sub> are used.