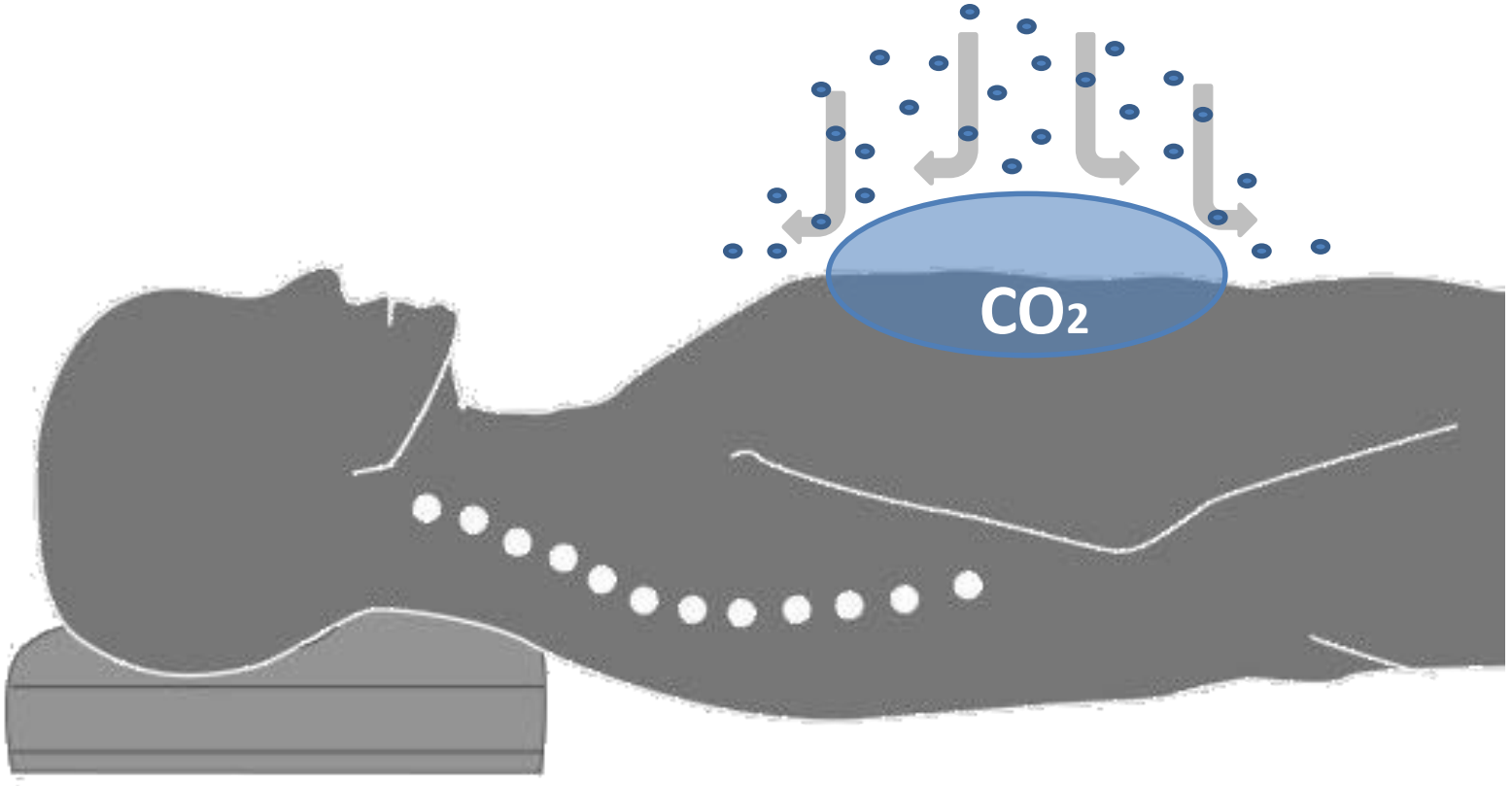
# $CO_2$ Gas Diffuser

TEMED

**Preventing air embolism and bacteriological contamination in open surgery effective!**



# $CO_2$ Gas Diffuser

TEMED

Intraoperative CO2 insufflation can decrease the risk of surgical site infection.
Persson M, van der Linden J., Med Hypotheses. 2008;71(1):8-13:
*"The open surgical wound is subjected to airborne bacterial contamination, desiccation, and heat loss that increase the bacterial load, cause superficial necrosis, and impair tissue oxygenation and cellular immune functions, respectively. The hypothesis is that topically applied carbon dioxide in the open surgical wound can be used Intra-operatively to avoid these risks, and thus help to prevent postoperative wound infection."*

Carbon dioxide field flooding reduces neurologic impairment after open heart surgery.
Martens S, Neumann K, Sodemann C, Deschka H, Wimmer-Greinecker G, Moritz A.
Ann Thorac Surg. 2008 Feb;85(2):543-7:
*"Shorter P300 peak latencies after surgery indicate less brain damage in patients who underwent heart valve operations with CO2 flooding of the thoracic cavity."*

# $CO_2$ Gas Diffuser

TEMED

Wound ventilation with carbon dioxide: a simple method to prevent direct airborne contamination during cardiac surgery?
Persson M, van der Linden J., J Hosp Infect. 2004 Feb;56(2):131-6:
*"Intraoperative wound ventilation with CO2 using a gas-diffuser may not only prevent air embolism, but may also significantly reduce the risk of airborne contamination and postoperative wound infection in cardiac surgery."*

Effect of CO2 insufflation on the number and behavior of air microemboli in open-heart surgery: a randomized clinical trial.
Svenarud P, Persson M, van der Linden J., Circulation. 2004 Mar 9;109(9):1127-32:
*"Insufflation of CO2 into the thoracic wound markedly decreases the incidence of microemboli."*

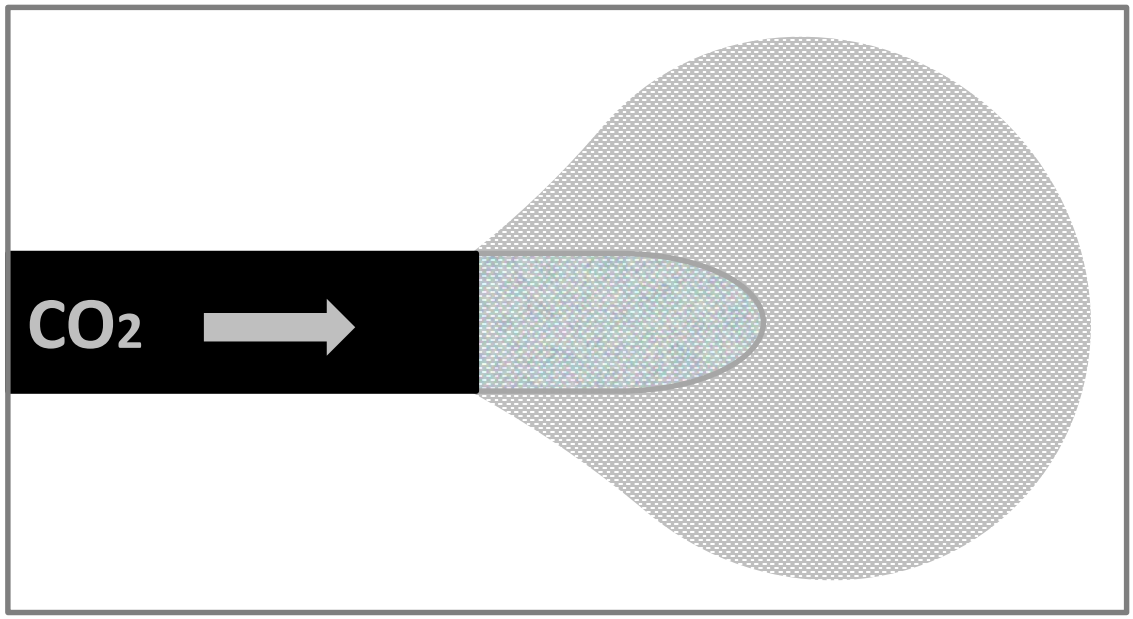
# $CO_2$ Gas Diffuser

TEMED

- ✓ Innovative microporous diffuser tip for a stable $CO_2$ atmosphere avoiding turbulences
- ✓ Hydrophobic diffuser tip
- ✓ Optional wire reinforced for an individual and perfectly fitting placement in the surgical field
- ✓ 3,5 m Gastube with Gasfilter and ¼“ connection to the gas source
- ✓ Gas flow up to 10 l/min

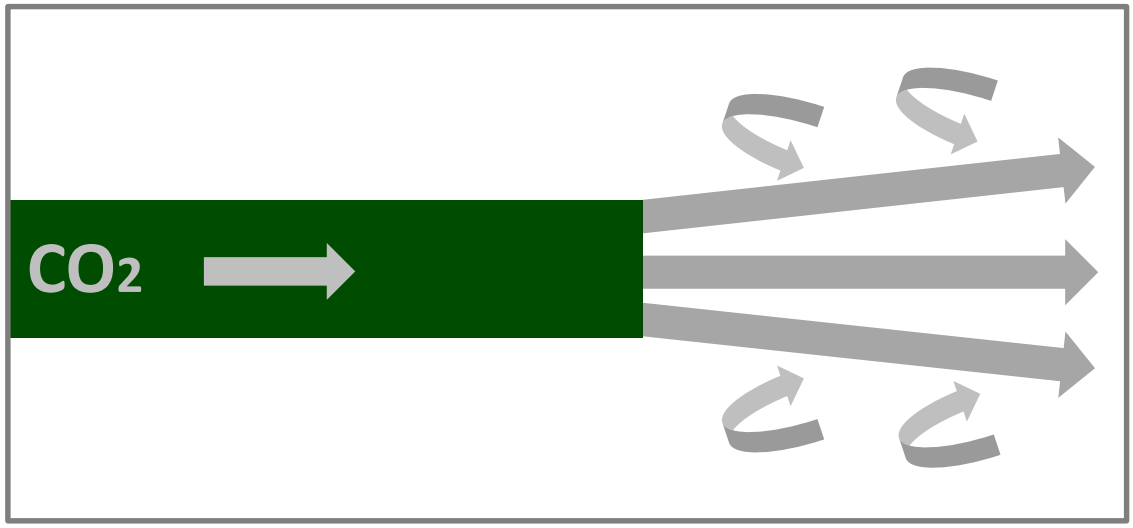
# $CO_2$ Gas Diffuser

TEMED




## TEMED

Smooth placement in the surgical field and building up a consistent $CO_2$ atmosphere, a stable barrier against air embolism and bacteriological contamination



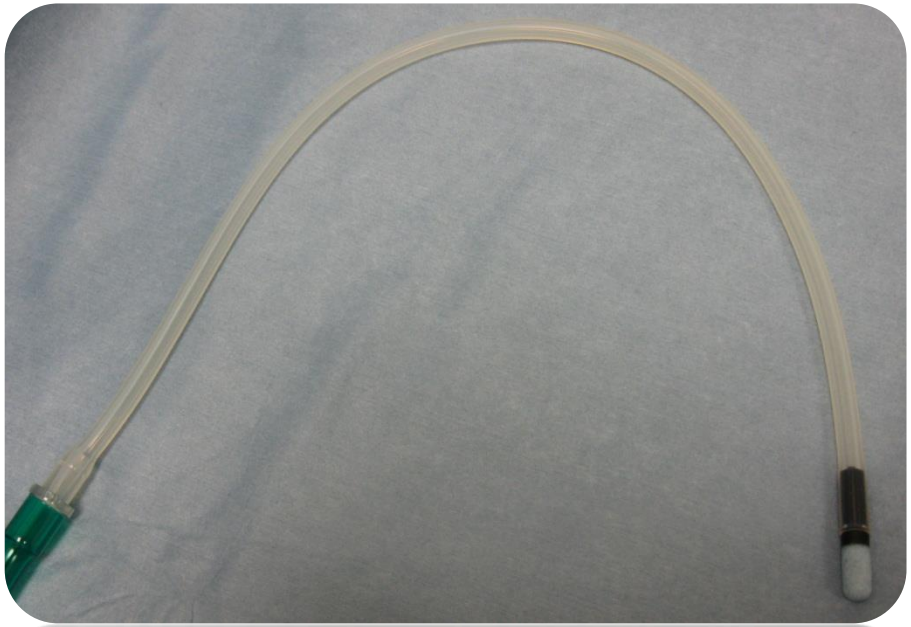

## Standard open tube

Uncontrolled Jetstream with the risk of turbulences, no stable barrier

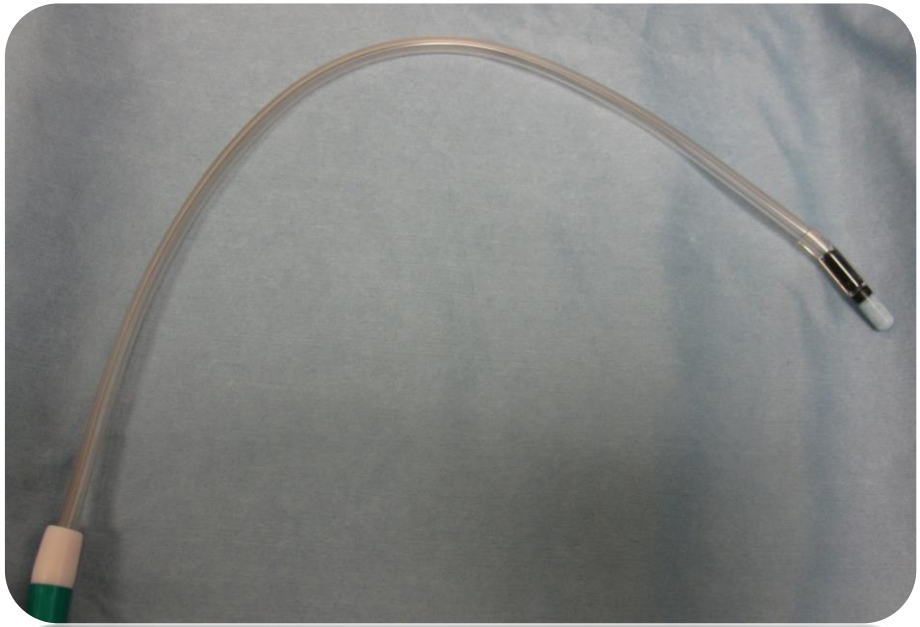
# $CO_2$ Gas Diffuser

TEMED

**P8010 TEMED I**
**flexible Silicone end tube**



**P8020 TEMED II**
**PVC end tube wire reinforced**



**Packaging:** outer box 30 pieces/inner box 10 pieces