Optimal respiratory monitoring during sedation for all patients

cap-ONE mask fits different face shapes and sizes

Patient benefits from capnography monitoring as recommended by ASA and APSF Guidelines

Currently clinical guidelines, including those of the American Society of Anesthesiologists (ASA) and Anesthesia Patient Safety Foundation (APSF), recommend capnography as one of the most reliable non-invasive methods to continuously monitor and assess the adequacy of the patient’s respiratory condition during procedural sedation and analgesia. Favorable benefits to patient’s safety which may be associated with using capnography have also been shown. Capnography is becoming more widely adopted as a means to detect respiratory depression and avoid serious complications in all care levels including ER, OR, ICU and recovering room.

cap-ONE mask enhances patient safety

cap-ONE mask is an oxygen mask with integrated cap-ONE mainstream capnometer sensor (TG-980P, Nihon Kohden). It can measure end-tidal carbon dioxide (ETCO₂) while supplying oxygen thanks to a unique design which catches the exhaled gas from the nose and mouth without interference from the oxygen supply.

Efficient oxygen supply while measuring ETCO₂

cap-ONE mask has a unique structure designed to measure ETCO₂ while supplying oxygen. This structure keeps oxygen concentration inside the mask consistent and stable.
Performance of cap-ONE mask in measuring ETCO₂ and supplying oxygen

Accurate ETCO₂ monitoring at high oxygen flow

The accuracy of non-invasive CO₂ monitoring can be influenced by several factors including oxygen flow rate, tidal volume and measurement site (oral or nasal). The performance of cap-ONE mask to measure ETCO₂ during oxygen administration has been evaluated using a breathing simulator (ASL5000, IngMar Medical, USA).

Efficient oxygenation with cap-ONE mask

The efficacy of cap-ONE mask was also evaluated using the same simulator. cap-ONE mask provided FiO₂ of about 40% at oxygen flow of 2 L/min. The cap-ONE mask FiO₂ was comparable to FiO₂ of conventional nasal oxygen cannula and oxygen mask.²

cap-ONE mask suits all face shapes

A 3-D digital scan (Kinect, Microsoft, WA) was used to measure the facial features of individuals of different ages, gender and ethnicities including Asian, Hispanic, Caucasian and African American. Next, we confirmed whether gaps between the cap-ONE mask and different parts of the face such as nose, chin, and cheek are sufficiently minimal so that the mask can accurately measure CO₂ and supply oxygen for different face shapes.

cap-ONE mask product line

CO₂ sensor kit oxygen mask

YG-242T (V935) infant
YG-232T (V933) pediatric
YG-272T (V983A) adult
YG-282T (V983C) adult, large

References