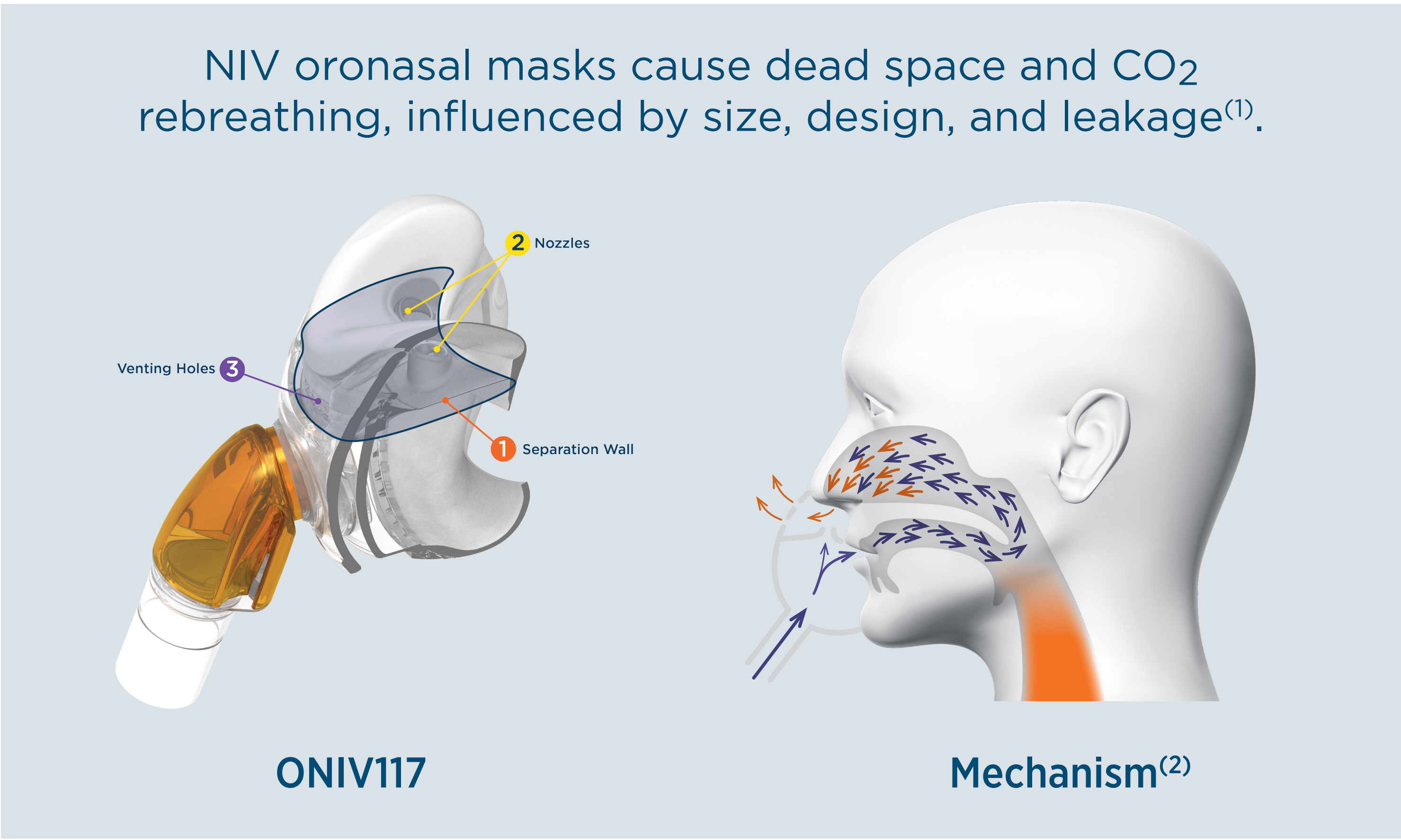


Comparing Oronasal Masks for Non-Invasive Ventilation for CO₂ Clearance: Bench and Healthy Volunteer Study

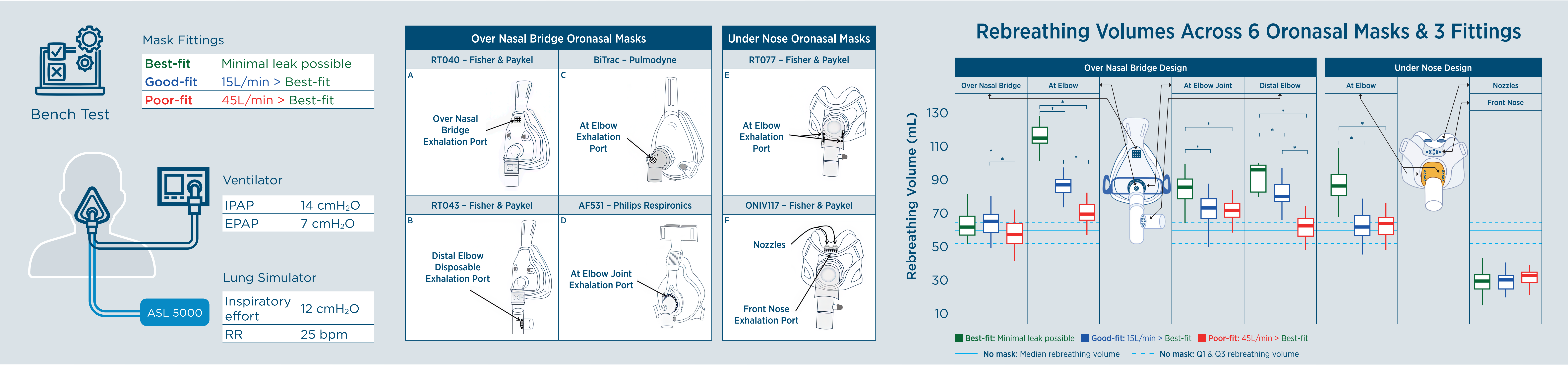
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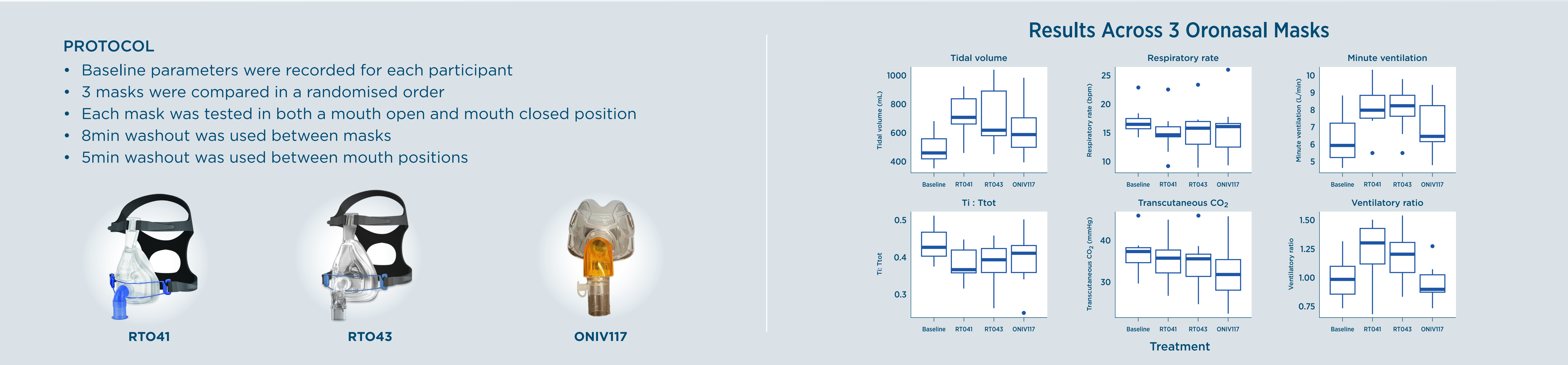
BACKGROUND



METHODS & RESULTS – BENCH TEST



METHODS & RESULTS – HEALTHY VOLUNTEERS



CONCLUSIONS

BENCH & HEALTHY VOLUNTEER

- The **OptiNIV** mask demonstrated superior dead space clearance (in the mask & upper airway). This was confirmed in healthy volunteer assessments by a reduced ventilatory ratio.

BENCH ONLY

- Masks with **integrated exhalation ports** showed higher CO₂ clearance than those with **ports located at or below the elbow**.
- Masks with **elbow-positioned ports** showed unintentional leaks that improved CO₂ clearance.
- Both the mask design and the amount of leak played a role on CO₂ clearance – Mask design has a greater impact than the amount intentional leak.

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