

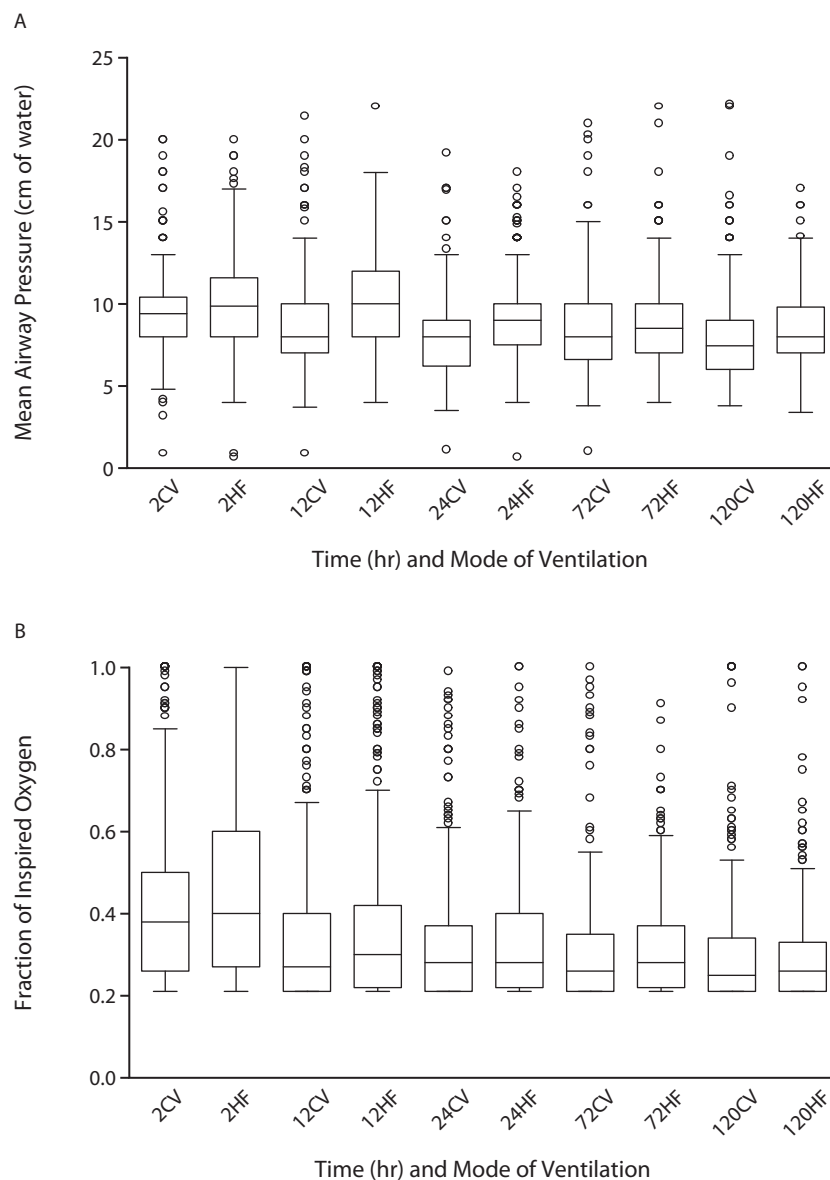
# Supplementary Appendix

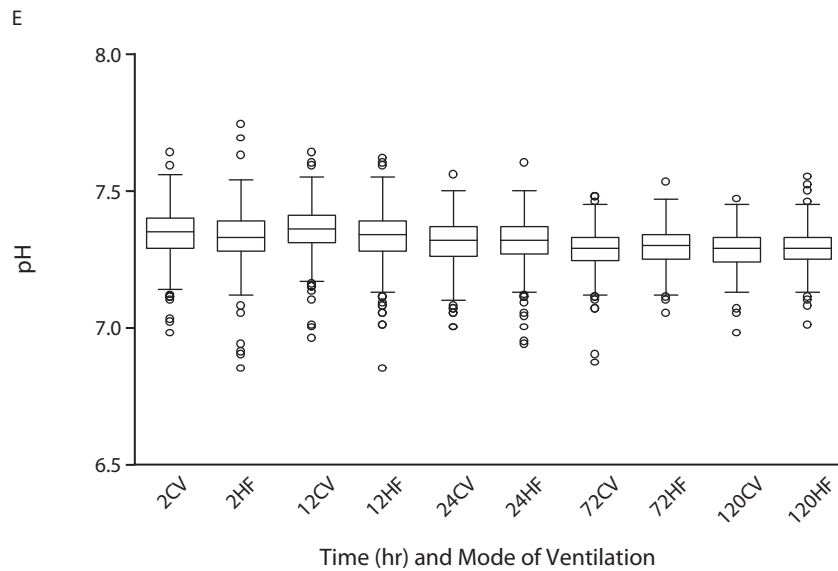
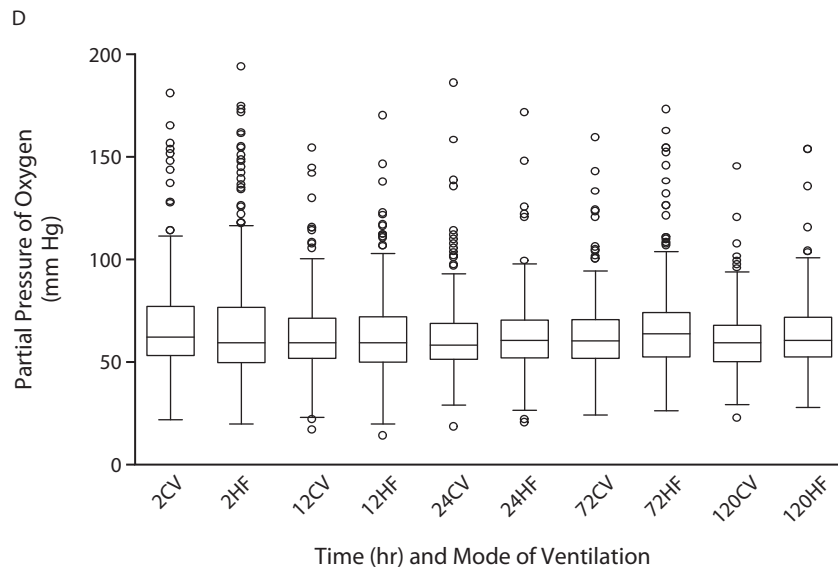
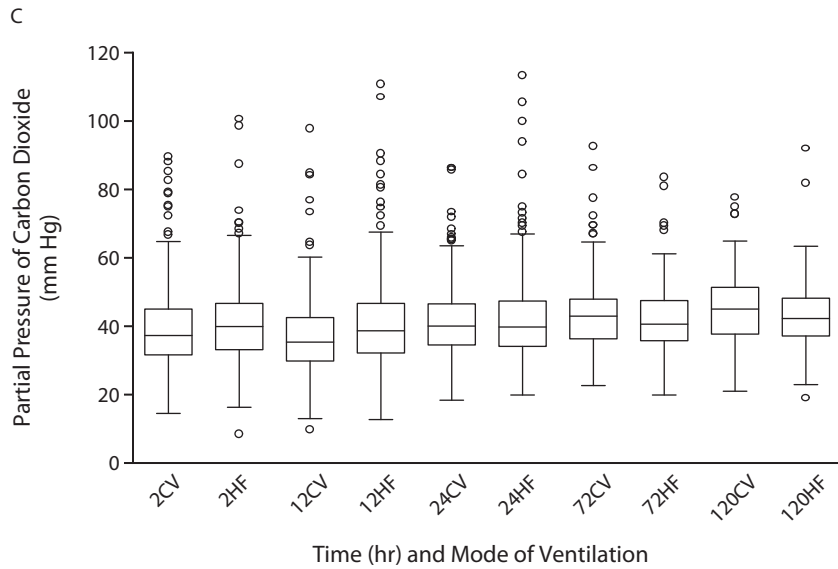
This appendix has been provided by the authors to give readers additional information about their work.

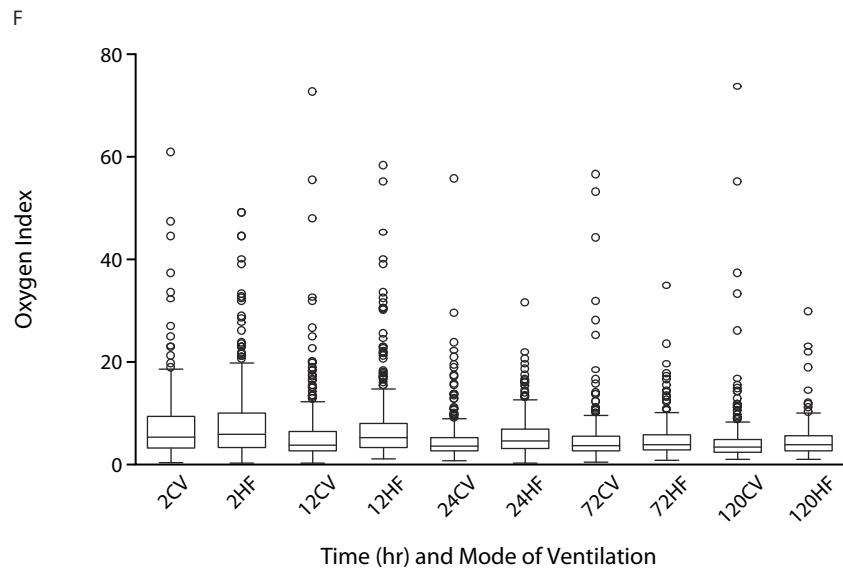
Supplement to: Johnson AH, Peacock JL, Greenough A, et al. High-Frequency Oscillatory Ventilation for the Prevention of Chronic Lung Disease of Prematurity. *N Engl J Med* 2002;347:633-42.

**Supplementary Appendix 1. Physiological Data, Including Ventilator-Related Variables and Blood Gas Measurements, According to the Mode of Ventilation at 2, 12, 24, 72, and 120 Hours.**

Boxes show the 25th, 50th (median), and 75th percentile values; whiskers show 1.5 times the interquartile range outside the 25th and 75th percentile values; and circles denote individual outlying values. The oxygen index was calculated as follows:  $(\text{fraction of inspired oxygen} \times \text{mean airway pressure in centimeters of water} \times 100) \div \text{partial pressure of oxygen in millimeters of mercury}$ . CV denotes conventional ventilation, and HF high-frequency oscillatory ventilation.







## Supplementary Appendix 2. Subgroup Analyses According to Type of Oscillator

A full multifactorial analysis of the effect of the type of oscillator on the frequency of the primary outcome, allowing for base-line differences, was not possible, because of the extremely small number of infants who underwent ventilation with the SensorMedics 3100A oscillator. Therefore, we used principal-component analysis to reduce the number of dimensions of the data as follows. A maternal score was derived from principal-component analysis of all base-line maternal variables (Table 1 of the article) that were significantly associated with the primary outcome. Similarly, an infant score was derived from principal-component analysis of all base-line infant variables (Table 2 of the article) that were significantly associated with the primary outcome. The first principal component from each of these scores was analyzed separately. These analyses showed that the odds ratios for the SensorMedics oscillator did not change substantially after adjustment, suggesting that the differences in the frequency of the primary outcome among the types of oscillator were not caused by differences in the base-line maternal or infant factors that were measured in this study. There was no significant interaction between either of the two scores and the type of oscillator.

Thus, we were unable to explain the observed differences in the frequency of the primary outcome among types of oscillators in our study, but it must be emphasized that the type of machine was not assigned randomly, and so the differences that we observed may have resulted from other base-line differences that were not measured.

RELATION BETWEEN THE TYPE OF OSCILLATOR AND DEATH OR CHRONIC LUNG DISEASE AMONG INFANTS ASSIGNED TO RECEIVE HIGH-FREQUENCY OSCILLATORY VENTILATION.

OSCILLATOR	INFANTS no./total no.	ODDS RATIO (95% CONFIDENCE INTERVAL)		
		UNADJUSTED	ADJUSTED FOR MATERNAL BASE-LINE FACTORS	ADJUSTED FOR INFANT BASE-LINE FACTORS
Dräger	168/393	1.00		
SLE	187/393	1.03 (0.66–1.59)	1.04 (0.67–1.62)	1.45 (0.87–2.41)
SensorMedics	38/393	4.94 (1.67–14.58)	4.91 (1.66–14.52)	5.39 (1.72–16.92)