

2. Markello, R., Cutter, J. A., and King, B. D.: Hyperventilation studies during nitrous-oxide narcotic-relaxant anesthesia, *ANESTHESIOLOGY* 24: 225, 1963.
3. Utting, J. E., Gray, T. C., and Rees, G. J.: Anaesthesia for the respiratory cripple, *Acta Anaesth. Scand.* 9: 29, 1965.
4. Severinghaus, J. W., Mitchell, R. A., Richardson, B. W., and Singer, M. M.: Respiratory control at high altitude suggesting active transport regulation of c.s.f. pH, *J. Appl. Physiol.* 18: 1155, 1963.
5. Brandstater, B., Eger, E. I., II, and Edelist, G.: Constant-depth halothane anesthesia in respiratory studies, *J. Appl. Physiol.* 20: 171, 1965.
6. Eger, E. I., II, Saidman, L. J., and Brandstater, B.: Minimum alveolar anesthetic concentration: A standard of anesthetic potency, *ANESTHESIOLOGY* 26: 756, 1965.
7. Severinghaus, J. W.: Blood gas calculator, *J. Appl. Physiol.* 21: 1108, 1966.
8. Leusen, I.: In Brooks, C. M., Kao, F., and Lloyd, B. (eds.): *Cerebrospinal Fluid and the Regulation of Ventilation*. Philadelphia, F. A. Davis Co., 1965, pp. 55-83.
9. Edelist, G., and Zauder, H. L.: Bedside measurement of carbon dioxide response, *ANESTHESIOLOGY* 28: 624, 1967.
10. Plum, F., and Posner, J. B.: Blood and cerebrospinal fluid lactate during hyperventilation, *Amer. J. Physiol.* 212: 864, 1967.
11. Posner, J. B., and Plum, F.: Blood and c.s.f. lactate levels during hyperbaric hyperventilation, *Fed. Proc.* 26: 334, 1967.
12. Reivich, M., Cohen, P. J., and Greenbaum, L.: Alterations in the electro-encephalogram of awake man produced by hyperventilation: Effects of one hundred percent oxygen at three atmospheres pressure, *Neurology* 16: 304, 1966.
13. Mitchell, R. A., and Singer, M. M.: Respiration and cerebrospinal fluid pH in metabolic acidosis and alkalosis, *J. Appl. Physiol.* 20: 905, 1965.
14. Eger, E. I., II, Kellogg, R. H., Mines, A. H., Lima-Ostos, Morrill, C. G., and Kent, D. W.: Influence of CO₂ on ventilatory acclimatization to altitude, *J. Appl. Physiol.* 24: 607, 1968.
15. Boycott, A. E., and Haldane, J. S.: The effects of low atmospheric pressures on respiration, *J. Physiol., London* 37: 355, 1908.
16. Hasselbach, K. A., and Lindhard, J.: Analyse des hohenklimas in seinen wirkungen auf die respiration, *Skand. Arch. Physiol.* 25: 361, 1911.
17. Brown, E. B., Jr., Campbell, G. S., Johnson, M. N., Hemingway, A., and Visscher, M. B.: Electrolyte changes with chronic passive hyperventilation in man, *J. Appl. Physiol.* 1: 333, 1949.
18. Smith, A. C., Spalding, J. M. K., and Watson, W. E.: Ventilation volume as a stimulus to spontaneous ventilation after prolonged artificial ventilation, *J. Physiol., London* 160: 2231, 1962.
19. Bendixen, H. H., Hedley-Whyte, J., and Laver, M. B.: Impaired oxygenation in surgical patients during general anesthesia with controlled ventilation. A concept of atelectasis, *New Engl. J. Med.* 269: 991, 1963.

Drugs

MOUNTAIN SICKNESS The effect of acetazolamide on acute mountain sickness was tested in a double-blind study in 43 volunteers. The subjects were given acetazolamide, 250 mg, or a placebo every eight hours for 32 hours before and 40 hours after abrupt transportation from sea level to 12,200 feet. In response to hypoxia, subjects given the placebo hyperventilated, and within eight hours after arrival at altitude they had developed mild respiratory alkalosis. These changes persisted over the five days of the study. In the acetazolamide group, alkalosis was prevented, although ventilation and alveolar oxygen tension were greater, and carbon dioxide tension and bicarbonate were less, than in the placebo group. Significant reductions in frequency and severity of the most prominent symptoms of acute mountain sickness—headache, insomnia and gastrointestinal symptoms—were observed in treated subjects. In placebo subjects, occurrence and severity of symptoms correlated well with carbon dioxide tension and poorly with pH or oxygen tension. The mechanism of the acetazolamide effect was not identified. (*Forwand, S. A., and others: Effects of Actazolamide on Acute Mountain Sickness, New Eng. J. Med.* 279: 839 (Oct.) 1968.)