

of the respiratory centers which further aggravates the hypoventilation. In addition, congestive heart failure may be present, and usually there is a severe systemic hypertension. Adequate reduction of weight is accompanied by complete disappearance of this cardiorespiratory syndrome. (Lillington, G. A., Anderson, M. W., and Brandenburg, R. O.: *Cardiorespiratory Dysfunction and Polycythemia in Patients with Extreme Obesity*, *Proc. Staff Meet. Mayo Clin.* 32: 585 (Oct. 16) 1957.)

RESUSCITATION Employing a mask suitable for use in contaminated atmospheres, expired air resuscitation was evaluated in 16 anesthetized curarized human subjects. Alveolar carbon dioxide and oxygen concentration of both operator and subject, the air flow and tidal volume, each subject's arterial oxygenation by ear oximeter, and each subject's arterial oxygen saturation, carbon dioxide tension and pH were maintained within normal limits. Moderate hyperventilation by the donor increases his expired oxygen concentration and lowers his expired carbon dioxide concentration to provide a gas having a composition satisfactory for artificial ventilation. (Greene, D. G., and others: *Expired Air Resuscitation in Paralyzed Human Subjects*, *J. Appl. Physiol.* 11: 313 (Sept.) 1957.)

COST OF RESPIRATION By measuring oxygen consumption when dead space was increased it was possible to measure the efficiency of the muscles of breathing. In the normal subject the oxygen cost of breathing was about 0.25 ml. oxygen per liter of ventilation up to ventilations of 40 l./minute, while at a ventilation of 80 l./minute it was approximately 0.6 ml./l. In the patient with emphysema the respiratory muscles were consuming between 2 to 3 ml./l. at a ventilation of 10 l./minute and the consumption per liter increased markedly with slight increases of ventilation. (Campbell, E. J. M., Westlake, E. K., and Cherniack, R. M.: *Simple Methods of Estimating Oxygen Consumption and Efficiency of Muscles of Breathing*, *J. Appl. Physiol.* 11: 303 (Sept.) 1957.)

POTASSIUM ALTERATIONS Plasma potassium levels remained unaltered during normocapnia and moderate hypercapnia (pH 7.19, mean arterial blood carbon dioxide tension, 73.2 mm. Hg). A statistically significant decrease in plasma potassium was noted in hypocapnia. Plasma potassium tended to rise during the post hypercapnic carbon dioxide washout. (Petersen, B. D., and others: *Influence of Alterations in Arterial Blood pH and Carbon Dioxide Tension on Plasma Potassium Levels in Humans Anesthetized with Nitrous Oxide, Thiopental, and Succinylcholine*, *J. Appl. Physiol.* 11: 93 (July) 1957.)

OXYGEN INSUFFICIENCY The resistance of experimental animals (white rats, mice and dogs) to acute oxygen deprivation was greatly increased by the administration of a complex preparation of 10 water-soluble vitamins: thiamin, riboflavin, nicotinic acid, folic acid, paraaminobenzoic acid, pantothenic acid, and vitamins B₆, B₁₂, P, and C. Higher nervous activity in these animals after oxygen deprivation was affected less than in controls. Observations and personal observations on subjects in the pressure chamber (5,000 m.), and also investigations of the rate of visual perception showed the complete effectiveness of the simultaneous administration of the vitamin complex before the ascent to that height. (Kosmolinski, F. P.: *Effect of a Polycitamin Complex on Resistance of Organism to Oxygen Insufficiency*, *Vopr. pitan.* 15: 15, 1956.)

OXYGEN ABSORPTION At temperatures of 18-20 C. and at rest the amount of oxygen absorbed through the skin varied between 94 and 220 ml./hour. During moderately strenuous physical work 370 ml./hour were absorbed; this increased to 650-786 ml./hour as the temperature of the air was raised. (Petrun, N. M.: *Absorption of Oxygen Through Skin at Different Temperatures of Air*, *Vrac. Delo* 8: 853, 1956.)

TRACHEAL ASPIRATION Following endotracheal aspirations of secretions in anesthetized patients, there occurs frequently a decrease in oxygen saturation