AIRWAY RESISTANCE Mechanical irritation of the larynx caused an increase in total lung resistance distal to the larynx in both anesthetized and decerebrate cats. The afferent pathway of this reflex is in the superior laryngeal nerve and the efferent pathway is in the vagus nerve. Irritation of nasal mucosa had no effect on lung resistance. Mechanical irritation of either laryngeal or nasal mucosa increased arterial blood pressure. The response was greater in decerebrate than in anesthetized animals. The afferent limb of this reflex is in the superior laryngeal or the fifth cranial nerve and efferent limbs are in sympathetic nerves. Findings of this study contribute further evidence for complex nervous control of airway size. *(Nadel, J. A., and Widdicombe, J. G.: Reflex Effects of Upper Airway Irritation on Total Lung Resistance and Blood Pressure, J. Appl. Physiol. 17: 861 (Nov.) 1962.)*

PULMONARY EMPHYSEMA Intravenous administration of 0.5 Gm. of aminophylline in patients with advanced emphysema stimulates the rate and depth of respiration, restoring arterial P_{CO_2} and *p*H to normal levels. When aminophylline is given after the effects of a carbonic anhydrase inhibitor are well established, arterial P_{CO_2} falls to a lower level than that after aminophylline alone. Oxygen given to a patient with chronic respiratory failure and cardiac decompensation produces prompt respiratory depression, rise in arterial P_{CO_2} and a fall in arterial *p*H in 12 minutes. Intravenous aminophylline infusion sustained respiration and restored arterial P_{CO_2} and *p*H to normal levels. It is of great help to patients receiving oxygen therapy who are not in a mechanical respirator. *(Gladston, M., and Myles, M. B.: Use of Aminophylline in Respiratory Depression and Carbon Dioxide Retention Produced by Oxygen Inhalation in Patients with Pulmonary Emphysema, Amer. J. Med. 33: 852 (Dec.) 1962.)*

EMPHYSEMA Overinflation of the pulmonary air spaces is only one aspect of the emphysema problem. The disability in the majority of cases seems more related to widespread bronchial obstruction than to the degree of air space inflation. Obstruction of air flow through the bronchioles not only severely limits the rate of ventilation, but also greatly interferes with lung-cleansing mechanisms. This gives rise to several complications: infection, bronchospasm, and accumulation of more secretions. Another major derangement involved in pulmonary emphysema is the decreased blood supply to the alveoli for exchange of respiratory gases. In some patients, such disturbances of perfusion of blood supply are predominant. The concomitant aberrations of emphysema present a list of pathophysiologic changes which are amenable to therapy: infection, bronchospasm, sputum accumulation, anoxia, hypercarbia, respiratory paralysis, polycythemia, diaphragmatic depression, heart failure, and emotional distress. *(Noehren, T. H.: Pulmonary Emphysema, J. A. M. A. 182: 889 (Dec. 1) 1962.)*

PAPILLEDEMA Papilledema in the course of chronic pulmonary disease is not rare and probably results from a combination of right-sided failure, hypercapnia, and hypoxemia associated with a secondary elevation in cerebrospinal fluid pressure. Once papilledema and congestive heart failure have manifested themselves, the prognosis of chronic pulmonary disease is poor. Very few patients survive more than two years, once congestive heart failure has occurred. However, the occurrence of papilledema during the course of respiratory failure need not necessarily imply a poor prognosis. A series of three patients has been treated successfully, all of whom had the severest form of arterial blood gas alterations, as well as congestive heart failure, papilledema, asterixis, polycythemia, and carbon dioxide narcosis. Therapy of the respiratory failure consisted primarily of vigorous, assisted mechanical ventilation complemented by prompt use of antibiotics. The congestive failure was treated with digitalization, diuresis, salt restriction, and phlebotomy. Once the acute physiological and metabolic abnormalities have been corrected, the outcome is dependent largely on the course of the underlying chronic pulmonary disease, and papilledema does not appear to alter the prognosis. *(Stevens, P. M., and others: Prognostic Significance of Papilledema in Course of Respiratory*