to valvulotomy when the left lung was partially collapsed. After re-expansion of the left lung during closure, half of the patients had arterial P_{O_2} values below 100 mm. mercury when 50 per cent oxygen was used in the inspired mixture. Ventilation by pH and P_{CO_2} criteria was normal throughout. (*Hallowell, P., and others: Oxygenation During Closed Mitral Valvulotomy, J. Thor. Cardiov. Surg. 50: 42 (July) 1965.*)

POSTOPERATIVE HYPOXIA Pulmonary causes are: alveolar hypoventilation, uneven air/blood distribution, impaired diffusion, and venous-arterial shunting. These result in cardiac disturbances because cardiac output, respiratory work, and pulmonary vascular resistance are all increased. Circulatory tests were run while patients breathed 10 per cent and 100 per cent oxygen. During acute hypoxia (75 per cent arterial oxygen saturation), cardiac output should rise 25 per cent. If cardiac output declines instead, the cardiac reserve is poor and the hazards of intrathoracic surgery are prohibitive. (*Birkeland, S.: Circulatory Changes During 100 Per Cent Oxygen Respiration and Acute Hypoxia for Preoperative Evaluation in Thoracic Patients, Acta Chir. Scand. 128: 746 (Dec.) 1964.*)

OBSTRUCTIVE LUNG DISEASE In 175 cases of chronic obstructive lung disease in ambulant outpatients, expiratory slowing, which correlated best with clinical observations, was in turn best correlated with vital capacity, the ratio of residual volume to total lung capacity, partial pressure of carbon dioxide and arterial oxygen saturation. (*Burrows, B., and others: Chronic Obstructive Lung Disease, III. Inter-relationships of Pulmonary Function Data, Amer. Rev. Resp. Dis. 91: 861 (June) 1965.*)

PULMONARY EMPHYSEMA In 175 cases of chronic obstructive lung disease the one-second forced expiratory volume calculated as a percentage of the predicted vital capacity correlated more closely with severity of dyspnea and clinical assessment of severity of disease than any other parameter. Fluoroscopic assessment of residual volume, diaphragmatic immobility and pulmonary artery prominence correlated better with the above parameters than with other pulmonary function measurements. (*Burrows, B., and others: Chronic Obstructive Lung Disease. II. Relationship of Clinical and Physiologic Findings to the Severity of Airways Obstruction, Amer. Rev. Resp. Dis. 91: 665 (May) 1965.*)

CARBOXYHEMOGLOBIN Carbon monoxide content of blood of normal non-smokers was 0.01 to 0.36 per cent by volume; average saturation, 0.9 per cent. In smokers the content was 0.15 to 2.39 per cent and average saturation was 4.2 per cent. Oxygen tensions of blood were measured before and after inhalation of 0.4 per cent CO in air—a sufficient concentration to raise the carboxyhemoglobin saturation to 5–10 per cent. The arterial and mixed venous oxygen tension decreased an average 7.3 and 13.3 per cent, respectively. The partial combination of hemoglobin with carbon monoxide makes the remaining hemoglobin bind oxygen with abnormal tenacity. A 5 to 10 per cent saturation of carboxyhemoglobin could lead to severe myocardial hypoxia in patients with coronary artery disease. (*Ayres, S. M., Giannelli, S., Jr., and Armstrong, R. G.: Carboxyhemoglobin: Hemodynamic and Respiratory Responses to Small Concentrations, Science 149: 193 (July 9) 1965.*)

CARDIAC RESUSCITATION Despite the effectiveness of the standard resuscitative procedures in cardiac arrest, there remains a number of patients whose hearts cannot be restarted despite the fact that their neurological and physiological status is compatible with survival. The refractory nature of these cases is presumably due to the fact that cardiac massage does not produce sufficient arterial blood pressure and coronary circulation to permit recovery of myocardial function. The sustained use of extracorporeal circulation to increase coronary perfusion offers a means of resuscitating these patients. In a series of five patients, an effective cardiac beat was restored in four following periods of cardiac bypass varying from 30 to 60 minutes. One surgeon performed effective cardiac massage while a second surgeon connected the patient to a pump oxygenator by means of arterial and