physema, J. Clin. Invest. 39: 724 (May) 1960.)

PULMONARY DIFFUSION Carbon monoxide equilibration tests indicate a nonuniformity of diffusion throughout the lung. Diffusion is quantified in terms of compartments which vary in their diffusing characteristics. In normal subjects, the lung behaves as though 6 to 18 per cent of its volume contained 12 to 46 per cent of its diffusing capacity. Total diffusing capacity calculated by compartmentation methods is not significantly different from that calculated by the conventional breath-holding technique. In patients, variable degrees of diffusing capacity/lung volume nonuniformity are noted. This phenomenon appears to produce an unpredictable error in the breath-holding method in abnormal subjects. True over-all diffusing capacity cannot be accurately assessed by conventional techniques in patients with marked pulmonary abnormalities. *(Burrows, B., and others: Non-Uniform Pulmonary Diffusion as Demonstrated by Carbon Monoxide Equilibration Technique: Experimental Results in Man, J. Clin. Invest. 39: 943 (June) 1960.)*

HYPOVENTILATION By interfering with the chest bellows mechanism, marked obesity alone may cause alveolar hypoventilation to the extent that cyanosis, polycythemia, hypercapnea, pulmonary hypertension, and right sided heart failure develop. The management of this problem may require artificial ventilation in an attempt to achieve lower levels of carbon dioxide and resensitization of the respiratory center. *(Scalettar, R., and others: Alveolar Hypoventilation and Cardiopulmonary Failure in Obesity, U. S. Armed Forces Med. J. 11: 774 (July) 1960.)*

OXYGEN THERAPY DANGER Oxygen was administered to 40 dogs during the recovery phase after clinical death lasting 5 minutes and resulting from massive loss of blood. It was found that hypoxia following clinical death results in increased sensitivity to high concentration of oxygen with rapid development of hyperoxia and death of animals. This was the cause of death (within 24 hr.) of 13 of the 40 dogs. Fifteen dogs were not affected by oxygen therapy and the life of 8 dogs was prolonged by oxygen therapy to 5–97 days. Oxygen therapy was effective only in the case of 4 dogs the spontaneous respiration of which was reestablished only after some delay (4.5–7 min.). The use of 100 per cent oxygen for the purposes of artificial respiration during resuscitation is considered inadvisable. During the recovery period the dosage of oxygen should be strictly controlled. It is useful only as a 40–50 per cent mixture in an oxygen tent in which the animal is placed not earlier than 80–112 minutes after resuscitation and for not less than 4 hour. *(Smirenskaya, E. M., and Romanova, N. P.: Oxygen Therapy During Period of Recovery after Clinical Death, Byull. Eksper. Biol. i Med. 46: 66, 1958.)*

RADIATION THERAPY Radiosensitivity of cells with low oxygen supply may be reduced by two thirds. Such tumor cells can thus survive the largest possible doses of X-ray. With increasing oxygen tension the radiosensitivity increases rapidly up to a certain point beyond which there is only slight further increase. Patients were given oxygen under 4 atmospheres of pressure in a pressure chamber (45 pounds per square inch gauge pressure). Intravenous anesthesia was used. Bilateral myringotomy was done prior to the first treatment. Results over a three year period have been encouraging. *(Foster, C. A., Churchill-Davidson, I. F. J., and Thomlinson, R. H.: Anesthesia for Radiation Therapy Under High Oxygen Pressure, Der Anaesthesist 9: 157 (May) 1960.)*

AMINE INHIBITORS Reduction in the formation of amines is associated with the lowering of blood pressure and inducing transient sedative effects in hypertensive patients. α-Methyl-3,4-dihydroxy-*d,l*-phenylalanine (α-methyl-dopa), a compound known to be an effective inhibitor of aromatic amine acid decarboxylation in man, was given and urinary serotonin, tyramine, and tryptamine were determined. Urinary levels of these amines were significantly decreased over controls. Patients who received the drug showed significant reduction in blood pressure, and evidence of sedative and tranquilizing effects. This study demonstrates the relationship of