tion of the arrhythmia may produce full compensation and clearing of symptoms. Oral quinidine is the drug of choice for conversion. A slower method using quinidine gluconate (Quinaglute Dura-Tabs) 0.65 Gm., every six to eight hours for one to 21 days until conversion occurs, then usual maintenance doses, removes the need to stop treatment because of drug reaction. (*Brill, I. C.: Changing Concepts in the Treatment of Sustained Atrial Fibrillation, Dis. Chest 41: 334 (Mar.) 1962.*)

HYPOGLYCEMIC ARRHYTHMIAS Severe cardiac arrhythmias may follow insulin-induced hypoglycemia in diabetic patients. This has been attributed solely to the accompanying hypokalemia. It was suggested that the hypokalemia increased the sensitivity of the myocardium to elevated levels of circulating epinephrine, the latter associated with the adrenal medullary discharge of hypoglycemia. Intravenous glucose promptly converted this arrhythmia in one case in spite of a continuing low serum potassium level (3.1 mEq./liter), presumably by causing an abrupt reduction in adrenal output of epinephrine. (*Leak, D., and Starr, P.: Mechanism of Arrhythmias During Insulin-Induced Hypoglycemia, Amer. Heart J. 63: 687 (May) 1962.*)

ARRHYTHMIA The observed frequency of cardiac arrhythmias, excluding tachycardia and bradycardia of sinus origin, in 569 unselected surgical patients during anesthesia was 29.9 per cent. The most frequent arrhythmia was atrioventricular dissociation with ventricular premature contractions ranking second. Preexisting heart disease was the most important factor. They occurred less frequently with thiopental and occurred more frequently during intra-abdominal operations. (*Dodd, R. B., and others: Cardiac Arrhythmias Observed During Anesthesia and Surgery, Surgery 51: 440 (Apr.) 1962.*)

PULMONARY CIRCULATION Constant infusion of acetylcholine directly into the pulmonary artery in patients with various forms of chronic pulmonary disease showed small changes in pulmonary artery pressure and pulmonary resistances. Arterial oxygen saturations did not fall. Possibly anatomic factors are more important in regulating ventilation perfusion than vasoconstriction. This study argues against the thesis that hypoxia in areas of lung poorly ventilated induces vasoconstriction. In advanced pulmonary disease, as in mitral stenosis, maldistribution of blood flow has become primary and overshadows uneven ventilation. (*Charms, B. L., and others: Effect of Acetylcholine on the Pulmonary Circulation in Patients with Chronic Pulmonary Disease, Circulation 25: 814 (May) 1962.*)

PULMONARY CIRCULATION Unilateral pulmonary artery occlusion is followed by homolateral bronchial constriction, reducing ventilation to the affected side and increasing it on the other and minimizing ventilation of nonperfused alveoli. This bronchoconstriction is initiated by the fall in P_{CO_2} in the alveolar air of the affected lung when no longer perfused by mixed venous blood. This mechanism reduces useless ventilatory effort in unilateral embolization but has serious implications for the patient with bilateral emboli. The reduction in ventilation of the affected lung falls to such an extent that there is no ventilation after one to two days though it almost returns to normal in a month. The roentgenographic and pathological findings of congestive atelectasis coincide with these variations in ventilation. The lungs of infants dying of hyaline membrane disease resemble these lungs and those with atelectasis produced in a variety of ways including bronchial occlusion and postperfusion atelectasis. Extracts of lungs atelectatic because of all these insults also showed a marked reduction in the surface active principle which reduces surface tension in the undistended state, thus keeping alveoli open, and which by reducing surface tension also reduces the pressure necessary to inflate the lung. This surface active agent appears to be the phospholipid portion of a lipoprotein. (*Comroe, J. H., Jr.: Pulmonary Arteral Blood Flow, Amer. Rev. Resp. Dis. 85: 179 (Feb.) 1962.*)

MUSCLE BLOOD FLOW Muscle blood flow in the calf and forearm was examined with continuous heat conductivity measurement in healthy subjects during intravenous and intra-arterial injections of epinephrine.

In contrast to the results obtained by occlusion plethysmography, it was found that intra-arterial infusions produced sustained increases in blood flow similar to intravenous infusions. The sustained dilatation of muscle vessels during intravenous infusion of epinephrine cannot be attributed entirely to secondary neural or humoral influences. However, it is not yet known to what extent these influences may be involved in addition to the local epinephrine effect. (*Golenhofen, K.: Sustained Dilatation in Human Muscle Blood Vessels under the Influence of Adrenaline, J. Physiol. 160: 189 (Feb.) 1962.*)

FOREARM BLOOD FLOW Forearm blood flow and forearm oxygen consumption with the extremity dependant were not significantly different from that with the extremity horizontal. Elevation of the forearm caused a significant decrease in blood flow and oxygen uptake. Forearm skin temperature did not vary with position of the extremity. These results suggest that variations in position of the upper extremity cause compensatory vascular reflexes. (*Abramson, D. I., and others: Effect of Altering Limb Position on Blood Flow, Oxygen Uptake, and Skin Temperature, J. Appl. Physiol. 17: 191 (Mar.) 1962.*)

RENAL BLOOD FLOW Pressure-flow relationships during reductions in renal artery pressure were studied in the dog kidney using a noncannulating electromagnetic flowmeter. When renal artery pressure was reduced by partial occlusion regulation was complete and flow was maintained at control levels at intravascular pressures above 70 mm. of mercury. Regulation was less complete from 50–70 mm. of mercury and absent below 50 mm. of mercury. Insignificant regulation of flow was found in the iliac bed using an identical experimental technique. These findings suggest the presence of an active, autoregulatory mechanism controlled by a sensitive feedback system for maintenance of renal blood flow. (*Schmid, H. E., and Spencer, M. P.: Characteristics of Pressure-Flow Regulation by the Kidney, J. Appl. Physiol. 17: 201 (Mar.) 1962.*)

INTRAOCULAR TENSION Pressures in the brachial artery, the retinal artery and intraocular pressure were measured when hypotension was induced by trimetaphan (Arfonad). Arterial pressure was lowered to about 45 mm. of mercury. A good correlation of respective pressures was found. Permanent retinal damage due to hypotension does not occur unless there is external pressure on the eyeball. Thrombosis of the central retinal artery after induced hypotension is due to severe changes in the wall of vessels. In order to avoid retinal damage, an abundant supply of oxygen should be provided. Blood pressure should not be dropped too rapidly and pressure on the eyeball should be avoided. Induced hypotension should not be used in patients showing vascular sclerosis. (*Haimboeck, K., and Steinbereithner, K.: Pressure in the Retinal Artery and Intraocular Tension During Induced Hypotension, Der Anaesthesist 11: 99 (Mar.) 1962.*)

BLOOD PRESSURE CUFF A blood pressure cuff adjustable in width to 40 per cent of the arm circumference effectively eliminates the errors in measurement of blood pressure which are correlated to variations in arm size. Certain obese individuals, who are hypertensive by standard cuff measurements, will have normal readings with this cuff. Low readings of asthenic subjects may also be brought to or nearer normal ranges. (*Dasberg, H., Blondheim, S. H., and Sadovsky, E.: An Adjustable Blood Pressure Cuff to Correct Errors Due to Variations in Arm Circumference, Brit. Heart J. 24: 214 (Mar.) 1692.*)

BLOOD PRESSURE RECORDER In order to study blood pressure variations over relatively long periods of time under conditions of normal daily activity, a portable blood pressure recorder has been devised which weighs only five and one half pounds. It consists of a standard blood pressure cuff and bulb, a button microphone, an F-M pressure transducer with appropriate electronic adjuncts, a tape recorder and a twin-light signal system. The cuff and microphone are taped to the upper arm and the other equipment is contained beneath the shoulders in two holsters. An incidental finding was a con-