instantaneous velocities calculated were 29 cm./second at site (1) and 22 cm./second at site (2). Technically not difficult, this method provides a means to measure instantaneous velocity in any vessel with a significant rate of flow, and also a means of measuring volume flow per beat such as stroke volume in pulmonary artery. (*Jameson, A. G.: Instantaneous Linear Velocity of Flow in Pulmonary Artery Measured by Catheter Tip Method, Science 128: 592 (Sept. 12) 1958.*)

PULMONARY BLOOD FLOW "Effective" pulmonary collateral blood flow was measured in 12 human subjects with various types of pulmonary and cardiac abnormalities by special adaptations of the Fick principle. "Effective" collateral blood flow was demonstrated in a subject with long-standing ligation of a pulmonary artery and in other individuals with bronchiectasis, cystic disease of the lung, and idiopathic clubbing of the fingers. These blood flows, however, did not exceed 8 per cent of the total pulmonary blood flow. Subjects with atresia of the main pulmonary artery displayed large "effective" pulmonary collateral blood flows, which approximated normal values for cardiac output at rest. During exercise these flows either remained unchanged or increased. (*Fishman, A. P., and others: The "Effective" Pulmonary Collateral Blood Flow in Man, J. Clin. Invest. 37: 1071 (July) 1958.*)

PULMONARY HYPERTENSION Ten dogs were subjected to banding of right and left pulmonary veins. Nine dogs survived. In 5 of the 9 dogs there was a rise in pulmonary artery and pulmonary wedge pressures. In 7 dogs a pulmonary resection of 1 or 2 lobes of the right lung was done. Five to eight months after banding 4 dogs died of severe pulmonary edema. (*Barnes, W. H., and others: Experimental Production of Pulmonary Hypertension, Surgery 44: 361 (Aug.) 1958.*)

ENDOTRACHEAL PRESSURE The cardiac output in 16 of 19 anesthetized patients was significantly decreased when the mean endotracheal pressure was elevated. The dye dilution technique was the method employed in making serial determinations of cardiac output in anesthetized patients undergoing surgery. To minimize changes in cardiac output during operations with the thorax intact, the mean endotracheal pressure must be kept near atmospheric. This practically necessitates the use of a negative phase in the apparatus if adequate ventilation is to be accomplished. (*Cathcart, R. T., and others: Cardiac Output Under General Anesthesia, The Effect of Mean Endotracheal Pressure, Ann. Surg. 148: 488 (Sept.) 1958.*)

CARDIAC OUTPUT Under barbiturate anesthesia and with an open chest, cardiac output can be measured in dogs by means of an electromagnetic flowmeter. Cardiac output may be measured in the ascending aorta or in the descending aorta and aortic arch branches. In either event, coronary flow is not measured. Advantages are that the measurements can be made continuously and results are immediately available. (*Schenk, W. G., and others: The Electronic Measurement of Cardiac Output, Surgery 44: 333 (Aug.) 1958.*)

BLOOD PRESSURE Digital systolic and diastolic blood pressures in human subjects were estimated by means of an auscultation technique similar to the clinical ascultatory method of measuring brachial blood pressure. Narrow occluding cuffs lead to higher pressure readings than wide cuffs. Because of the effect of temperature regulation reflexes on digital blood pressure such readings should not be taken to represent central blood pressure or indication of the direction of change in central blood pressure. (*Gaskell, P., and Krisman, A. M.: An Auscultatory Technique for Measuring the Digital Blood Pressure, Canad. J. Biochem. & Physiol. 36: 883 (Sept.) 1958.*)

CARDIAC METABOLISM Glucose is the primary substrate for carbohydrate metabolism in the isolated, perfused beating heart of the dog anesthetized with intravenous pentobarital. The uptake of glucose or lactic acid was not correlated with arterial concentrations. The energy production of the heart beat arrested with potassium citrate solution is approximately 1/1000–1/2000 that of the isolated