tion of the superior mesenteric artery. Microscopic observations of changes in vessel diameter, rate of blood flow, vasomotion and vascular reactivity to topically applied epinephrine were made following infusion of the drugs. Saline controls showed no improvement in capillary inflow, distribution and outflow, with progressive microcirculatory deterioration, venular stasis, high epinephrine reactivity and severe hypotension. Epinephrine improved inflow and outflow for 10 to 15 minutes, then changes similar to the controls followed. Angiotensin led to similar improvement for up to 40 minutes but this was followed by deterioration with marked venular stasis and intravascular hemolysis. PLV-2 caused a sustained return to near normal blood pressure levels with improvement in capillary flow and decreased epinephrine reactivity. No significant improvement in survival rates was noted in the epinephrine and angiotensin treated rats. However, a ninefold increase in survival rate of the PLV-2 treated rats was noted. *(Altura, B. M., Hershey, S. G., and Mazzia, V. D. B.: Microcirculatory Approach to Vasopressor Therapy in Intestinal Ischemic (SMA) Shock, Amer. J. Surg. 111: 186 (Feb.) 1966.)*

VASOPRESSORS AND RENAL FUNCTION Cardiac output is increased by certain vasopressors (positive inotropic effect). Vasopressors cause coronary vasodilation by their action on beta receptors. Inadequate coronary filling pressure will be improved by vasopressors resulting in increased cardiac output to such an extent that, in spite of greatly increased resistance in the renal vascular bed, perfusion of the kidneys increases. Ordinarily, however, if impaired renal function is the result of hypotension, the perfusion pressure in the kidneys should be raised by increasing the circulating blood volume *even in normovolemic patients*. The use of vasopressors should be restricted to situations where the central pumping function is inadequate (rise of central venous pressure above 15 cm. H_2O or threatening pulmonary edema or poor coronary perfusion). Even then, it cannot be predicted whether vasopressors will increase or decrease glomerular filtration. *(Wolff, G., Gigon, J. P., and Enderlin, F.: The Effect of Vasopressors and Infusion Therapy on Impaired Renal Function Secondary to Hypotension, Langenbeck Arch. Klin. Chir. 312: 103 (Oct.) 1965.)*

ISOPROTERENOL In 6 dogs, plasma volume and blood lactate and pyruvate were determined at three intravenous dosages of isoproterenol, each maintained for two hours, before and after splenectomy. A small 4 per cent decrease in plasma volume was not related to dosage level. Small increases in lactate and pyruvate levels (average 11.4 and 0.4 mg. per 100 ml.) also were not dose related. These changes were not of significant magnitude to contraindicate further trial of isoproterenol in the treatment of shock. *(Scott, H. M., and others: Effect of Prolonged Infusion of Isoproterenol on Plasma Volume and Blood Lactate and Pyruvate in the Dog, Canad. J. Physiol. 44: 29 (Jan.) 1966.)*

VENTILATION-PERFUSION RATIO Ventilation and perfusion were measured in the upper, middle and lower lung zones of 12 upright healthy male subjects, at rest and during exercise, while breathing room air and after breathing 100 per cent oxygen. During breathing of both air and 100 per cent oxygen, ventilation and perfusion increased from the apex to the base of the lung, the differences between upper and lower zones becoming less pronounced during exercise. Oxygen did not affect distribution of regional ventilation or perfusion in normal upright man, either at rest or during exercise. This negative result is of importance in determination of sensitivity of homeostatic mechanisms to oxygen tension. *(Holley, H. S., and others: Effect of Oxygen on the Regional Distribution of Ventilation and Perfusion in the Lung, Canad. J. Physiol. 44: 89 (Jan.) 1966.)*

AIRWAY RESISTANCE Analysis of over 300 determinations of maximal midexpiratory flow rate shows this measurement to have a wide range of normal values and to be no more reproducible than peak flow rates while involving more tedious calculations. *(Sobol, B. J.: The Maximal Midexpiratory Flow: A Re-examination, Amer. Rev. Resp. Dis. 92: 914 (Dec.) 1965.)*