442 Examination of the Color Sense in the Navy: The Chromatoscope. M. Munteanu. Rev. Intern. Serv. Sante Armee Terre Mer Air 38, 361-363 (May, 1965).

For the determination of color sense, the chromatoscope can be used to test color vision in r personnel whose duty demands normal color recognition. The results obtained with the chro scope have been superior to those gained with pseudoisochromatic tables. The instrument m be utilized to determine the color sense of aviators and personnel responsible for decipherin color signals in inclement weather. -- Aerospace Med. Absts

443 Respiratory Disorders in United States East Coast Telephone Men. W. W. Holland and R. W. Am. J. Epidemiol. 82, 92-101 (July, 1965).

Investigations were carried out among employees of several Bell System Telephone companie determine the prevalence of respiratory symptoms, the levels of ventilatory lung function and sputum production. Washington, D.C., Baltimore, Md. and Westchester County, N.Y., wer chosen as areas for the survey, partly for convenience but also because of the possibility of e vironmental differences. Nevertheless, levels of air pollution in these three places were fou to be very similar and no significant difference in the prevalence of respiratory symptoms or function was observed between men examined in each location. The results have, therefore, combined. The purpose of the study was to compare prevalence of respiratory symptoms in s lar employee groups in the US and in the UK by using strictly comparable methods of sample lection, examination of subjects and evaluation of findings. The Medical Research Council of Great Britain Short Questionnaire for respiratory symptoms was used. It was found that whil the level of respiratory symptom prevalence and of lung function was very similar in the thre areas of the US, it was markedly lower than those found in men doing the same work in Englan Also found was the role of tobacco smoking in the conditions studied. The importance of chro respiratory disease in the US is also discussed. -- APCA Absts

444 On the Mucus Flow-Rate in the Human Nose. G. Ewert. Acta Oto-Laryngol. Suppl. 200, 8-62

Air pollution has become an increasing problem for the industrialized countries; tobacco smok is considered to play an important role in the development of carcinoma of the lung and larynx and all over the world research is going on to identify and neutralize the noxious exhaust products gasoline and oil combustion. Defending the respiratory mucosa against these and other agents such as dust, soot, and bacteria, the mucous layer covering the epithelium also helps in condi ing the inspired air during its passage to the alveoli. Under normal conditions the greater pa the cleansing and conditioning process is performed by the nasal mucosa. To accomplish this surface has to be wiped clean, for otherwise these particles might accumulate and even multip in the mucous cover. This clearance is brought about by ciliary movement, dragging the visc layer with its embedded material toward the pharynx from where it is disposed of by swallowi Up to the present, conclusions about the working of human cilia have been drawn from animal excised tissue experiments with the exception of a few in vivo studies on humans, many of the latter done under non-physiological conditions. In the current study a quantitative method was developed by the author for observation of the mucus flow-rate in the human nose. The techni was based on direct observation under magnification of the mucus flow, indicated by a tracer s stance with exact measurement of the time and distance traveled by the substance and mainten of physiological conditions. -- APCA Abst

445 Roentgenographic and Physiological Study of the Heart in Athletes. V. V. Bulychev, V. A. Khmelevskii, and Yu. V. Rutman. Federation Proc. 25, Part II (Translation Supplemer T167-T171 (Jan.-Feb. 1966).

At rest, the roentgenographic volume and cardiac dimensions during diastole are greater in at letes than in normal non-athletic individuals. The cardiac enlargement observed in athletes is generally due to enlargement of both ventricles or to predominantly right ventricular enlargem In order to assess the dimensions of each of the ventricles more accurately, it is advisable to combine roentgenographic examination with electrocardiography, which permits localization or the site at which the interventricular septum is projected on the chest wall, and with electroky graphy. Intense physical exercise leads to dilatation of the right atrium and to a reduction in t size of the ventricles. Dilatation of the right atrium is due to an increase in the venous return the heart; the reduction in the size of the ventricles is due to increased myocardial tonus and t the expulsion of residual blood from the ventricles into the general circulation. During the hou following intense physical exercise, the heart gradually returns to its original size. The roent graphic dimensions of the left ventricle return to normal more promptly than those of the right ventricle. Tonogenic dilation of the ventricles during the late recovery period following intens physical exercise is the chief reason for the increase in the size of the heart in athletes as com pared with normal non-athletic individuals. -- Authors' conclusions