

served as a control. Preliminary results, summarizing a three-year period of study, suggest that education is capable of raising urine output and of preventing urolithiasis in a hot, dry climate. Four references are given. -- Authors' summary

- 138 Brain Potentials Studied by Computer Analysis. C. Xintaras, et al.
Arch. Environmental Health 13, 223-232 (Aug. 1966).

Brain responses to flashes of light in the freely moving rat can be examined with on-line summation techniques (Xintaras, et al., *Toxicol. Appl. Pharmacol.* 8, 77-87 (1966)). This development encouraged a study to furnish additional information about response morphology, particularly as it might vary as subjects move from alert wakefulness through drowsiness and into deeper stages of spontaneous or induced sleep. Male rats were implanted with cortical and subcortical recording electrodes and placed in an electrically shielded chamber. Photoc stimuli were presented to the rat, and conventional EEG recordings obtained. Cortical potentials evoked in response to each light flash were either averaged on-line by computer or recorded on a tape recorder for later averaging. Computer-summed responses (30-350 light flashes) were also graphically displayed by an x-y plotter. In the transition from wakefulness to sleep, specific components of the evoked response were attenuated whereas others were markedly augmented. Carbon monoxide and pentobarbital induced changes in the response that appeared similar to the changes recorded during the subjects' normal transition from wakefulness to spontaneous sleep. Consistent relationships were noted between the spontaneous EEG and the magnitude of the visual evoked response. This was particularly evident with wave IV during paradoxical sleep and with wave V during the onset of light sleep. The findings suggest that the alterations in the evoked response during light spontaneous or induced sleep may be associated with a general lowering of the level of vigilance and may be related to the integrative functions necessary to awareness and for processing sensory signals into something meaningful—perception. There are four references. -- Authors' summary

- 139 Smoking and Cancer of the Urinary Bladder in Males in Poland. J. Staszewski.
Brit. J. Cancer 20, 32-35 (March, 1966).

In a retrospective study, a significant association was found in males between smoking and urinary bladder cancer, as manifested by the percentage of smokers, average intensity of smoking (number of grams of tobacco smoked daily), and the smoking index (number of cigarettes smoked daily multiplied by the duration of smoking in years). The risk of male smokers' developing urinary bladder cancer was 2.7 times greater than that of nonsmokers, a figure close to that found by other investigators. Inhaling of smoke was more common and smoking of pipes or cigars less common for the bladder cancer patients than for the controls. The results of the present study are compatible with the view that cigarette smoking increases the risk of cancer of the urinary bladder. An excess of coal miners and of white collar workers, as well as of individuals with a history of pulmonary tuberculosis or peptic ulcer, was noticed in the group of bladder cancer patients as compared with the control group. -- Am. Rev. Resp. Dis. Absts.

- 140 Cigarette Smoking and Respiratory Infections in a Class of Student Nurses. J. L. Parnell, D. O. Anderson, and C. Kinnis. New Engl. J. Med. 274, 979-984 (May 5, 1966).

The incidence and duration of pure infections of the upper respiratory tract, tracheitis-bronchitis-pneumonia, and coryza syndrome were determined from September 1, 1963 to August 31, 1964, for two groups of senior student nurses at the Vancouver General Hospital School of Nursing. The comparison groups consisted of 47 students who were regular smokers from September 1, 1963, to May, 1964, when these smoking habits were determined by questionnaire, and a group of 47 nurses who had never smoked regularly. The incidence and incidence rate for respiratory diseases were less in nonsmokers; coryza syndrome and tracheitis-bronchitis-pneumonia were found to occur more often in smokers than in nonsmokers; and the total number of days off duty per student per year was greater for smokers. For nonrespiratory diseases the incidence was also greater in smokers, although the duration was greater in nonsmokers. -- Am. Rev. Resp. Dis. Absts.

- 141 An Epidemiological Study of Certain Aspects of Lung Cancer in New South Wales. D. L. Jones.
Med. J. Australia 1, 765-770 (May 7, 1966).

An epidemiologic study of certain aspects of lung cancer in New South Wales was undertaken for a 12-month period October, 1963 to September, 1964. The following factors were selected for investigation: smoking, chronic bronchitis, previous tuberculosis, residential history, and familial predisposition. The survey was undertaken by means of a questionnaire administered by an interviewer, and the patients were matched with suitably chosen controls. In no case did a patient fill in his own questionnaire. In this study the only etiologic factors which have been demonstrated to bear a causal relationship to lung cancer are the smoking of cigarettes and the presence of chronic bronchitis. Suggested, but not established, is a possible role of urban life with its