

## SECTION II

### USE OF OPHTHALMOLOGICAL METHODS IN EPIDEMIOLOGICAL ASSESSMENT OF TOXIC HAZARD

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The consequences of environmental pollution on the eye have become a public health problem. Ophthalmological problems due to environmental pollution can be divided into two basic groups: those which occur at work and those which occur in the living environment.

In toxicology, effects on the eye represent an area of special interest. This organ includes parts of the vascular as well as the nervous system. Ophthalmological examination makes possible the measurement of even the most delicate functional disturbances (1).

In epidemiological studies on workers exposed in the work environment, a very broad battery of ophthalmological tests must be applied. Exposure to various agents in the work environment is usually higher than in the living environment. Therefore, in epidemiological studies on workers, methods are developed which could also be applied to the population exposed in the living environment. Clearly, a survey of large population structures is necessary to select practical field tests to evaluate expected changes (screening tests). With this approach, the exposure effect/response relationship could be established and guidelines for the epidemiological survey developed.

The aim of this paper is to point out the possible applications of certain tests for epidemiological diagnostics which could be important for investigating the living environment. For this survey, the rich experiences gained in the Ergophthalmologic Unit of the Institute of Occupational and Radiological Health in Belgrade will be used.

#### Effects of Carbon Disulfide

We performed numerous systematic investigations of workers who were exposed to various concentrations of carbon disulfide ( $\text{CS}_2$ ) in a large viscose rayon factory (1). At the start of our investigations, the carbon disulfide