

tions it may be unpleasant or even harmful. People entering and remaining in cooled spaces for short periods, 15 min or less, may be satisfied with less cooling. For long occupancy very little deviation from the optimum effective temperature is indicated.

Upon leaving an air-cooled space and re-entering a hot atmosphere, sudden warming occurs. Experiments at the A.S.H.A.E. Research Laboratory²⁶ and elsewhere²⁵ indicated no demonstrable harm to a healthy individual. Adaptation occurred as soon as normal perspiration was established. Mild exercise shortened the adaptation time.

A great number of persons seem to be fairly content in summer with a higher plane of indoor temperature. Studies by the University of Illinois²⁷ in cooperation with the A.S.H.A.E. Committee on Research indicate that effective temperatures as high as 74.5 ET are acceptable in the living quarters of a residence, and while this condition is not representative of optimum comfort, it provides sufficient relief in hot weather to be acceptable to the majority of users, in the interest of economy. Individual minority differences can be counteracted by clothing.

Satisfactory comfort conditions for persons at work²⁸ vary, depending upon the rate of work and the amount of clothing worn. In general, the greater the degree of activity, the lower the effective temperature necessary for comfort. Clothing has been evaluated for its overall insulation effects by a physical unit, the *clo* which equals 0.116 C deg per (kilogram calorie) (square meter) (hour).²⁹ Yaglou³⁰ criticizes the concept of overall insulation, and points out that different parts of the body require different amounts of insulation. The literature on effects of clothing is difficult to coordinate at the present time, as much of it is still in military service reports which are yet to be published and amplified.

For prematurely born infants, the optimum temperature varies from 100 to 75 F, depending upon the stage of development. The optimum relative humidity for these infants is placed at 65 percent.³¹ No data are yet available on the optimum air conditions for full term infants and young children up to school age. Satisfactory air conditions for these age groups are assumed to vary from 75 to 68 F with natural indoor humidities. For children (having high metabolism) at school, in winter clothes, 70 F has been considered correct, with 55 F recommended for gymnasiums.

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