

A Science Service Feature

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? WHY THE WEATHER ? Mailed March 7, 1935

FEELING HOT AND COLD

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When people comment on how hot or cold "it" is, they are not thinking so much of the weather as of their own sensations; or perhaps they conceive of weather as something that can be gauged by such sensations. Now it is a fact that human beings are always hot. Except just at the surface, the temperature of a healthy human body never varies more than a fraction of a degree from "blood heat" -- approximately 98 1/2 degrees Fahrenheit.

The body is a furnace, which constantly produces heat, Since the internal temperature remains constant, heat must be constantly given off. The human heat-regulating mechanism exercises some control over the rate at which heat is produced, but its chief function appears to be to eliminate excess heat at just the right rate, regardless of external conditions that tend to vary the rate of heat-loss. The process includes the regulation of the blood-supply to the surface of the body, the operation of sweat glands and other methods not well understood.

Our temperature sensations are believed to register the ease or difficulty with which the internal heat of the body is kept constant. The external conditions involved are, besides clothing, the air temperature, air movement, humidity, and radiation from the sun, sky, ground, walls of buildings and various other things.

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