wish not only to maintain health but also to reconstruct diseased tissues, that we have not only an abundant supply of pure oxygen, but also food to restore tissues, or to make new blood and more heat and energy.

Humidity of the Atmosphere.—It has already been stated that oxygen of the air is to nitrogen as 1 to 4 in volume. But we have in the atmosphere water as vapor in varying amounts. Normal air on a bright day in this climate contains about 70 to 75% of saturation with water vapour. All are aware how depressing a damp day is. We say the air is 'heavy,' but as a matter of fact the barometer shows it is lighter. This physical effect means simply that with excessive moisture the air breathed with each respiration has less of oxygen, and we are not then receiving enough to supply the demands of the body tissues, and so they are being over-loaded with effete matter. Moreover, the excessive air moisture prevents our bodies from throwing off body wastes by evaporation.

Temperature of the Atmosphere.—But there is yet another factor of importance in our climate which effects us, that is the coldness of the air. Remembering that air expands 1-273 part of its volume with every degree F. it is plain that air at zero is, as we may say, more condensed, that is every 15 cubic inches which we inhale contains more oxygen than at 90 degrees by about 25%. But air at zero holds less than 1 grain of moisture as vapor, so that cold air inhaled means increased chemical action in the tissues; more combustion, more wastes produced, more waste thrown off and more desire for food.

Regnault's Tables show air at 70 degrees to actually hold 7.992 grains of moisture, or 16 times as much as at zero; so that cold, dry air means that the body throws off by both respiration and evaporation much more moisture and with it more wastes from the body in solution. This same condition is attained in the high, dry climate of our western foot-hills, where with a relative humidity of often 50%, the amount of moisture actually cast off in twenty-four hours is, according to Dr. Denison, 25% more in twenty-four hours.

Sunlight.—But while the consumption of oxygen is greater in such climates, and the increased wastes cast off with moisture are likewise increased, we have further another influence in the effects of the direct sunlight of the plains and in our own climate on bright days. Much has of late been told us regarding the actinic rays of the sunlight, these being those at the farthest end of the spectrum, viz., the red and ultra violet. These rays