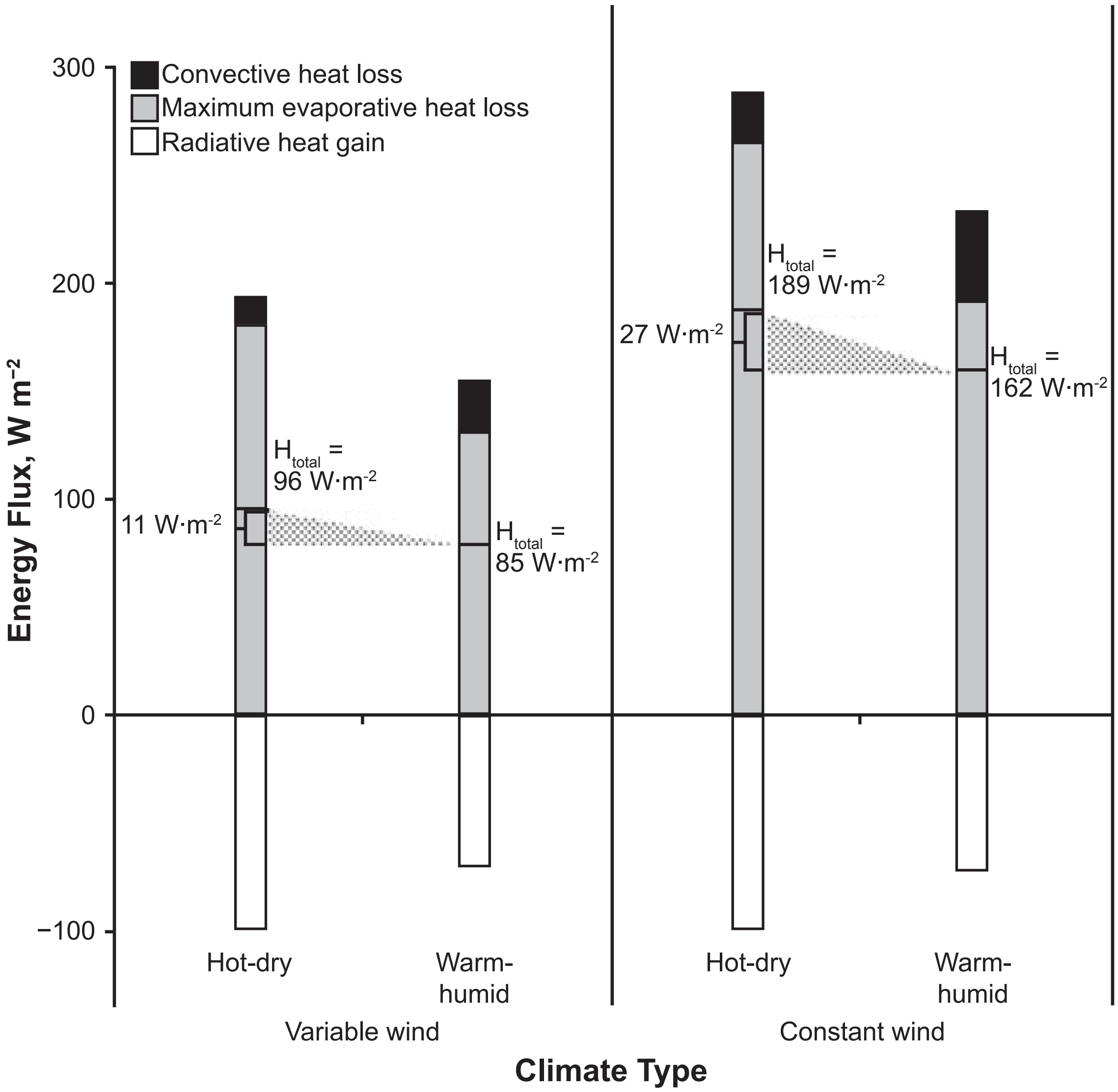

Supplemental Figure 1. Heat exchanges under controlled wind speed and relative wind velocities. In general, higher wind speeds increased the mean radiant temperature (Equation 6), which was used in subsequent calculations (mean operative temperature, radiative heat-transfer coefficients, convective heat-transfer coefficients, and mean temperature of the clothed body). Because the wind speeds in the 15-y period were on average higher in wet-humid (WH) versus hot-dry (HD) regions of the country (1.9 ± 1.1 m·s−1 and 1.4 ± 1.1 m·s−1, respectively), more variability arose in maximum heat-loss potential (Htotal) affecting the ability to fully discern differences in heat loss due to humidity, temperature, and solar radiation. Therefore, we ran a simulation under constant wind speeds at 1.0 m·s−1 and applied a relative wind velocity (vr)—as opposed to an activity speed (va) of 0.3 m·s−1 only—because the wind velocity (vw) experienced by a player is due to both movement (va) and wind (vw) (ie, vr = [va2 + vw2]1/2), which gave a vr of 1.04 m·s−1 for our simulation.3,4 In general, when wind speed was constant, the differences in convective and evaporative heat exchanges were amplified between HD and WH conditions. As shown for a wet-bulb globe temperature (WBGT) of 32.3°C, we were able to discern greater differences in Htotal between the HD and WH climates (27 versus 11 W·m−2) when using a constant wind speed, which further demonstrates the physiological differences in HD and WH climates at an equivalent WBGT. The differences found between the 2 climate types when comparing the convective and evaporative heat losses increased by 7.4 and 22.4 W·m−2, respectively, when using constant wind speeds for heat-exchange comparisons. Although potentially less realistic than real-world variable wind speeds, the use of a constant wind speed allows one to see these relative sensitivities of the heat-loss model in HD versus WH conditions at equivalent WBGTs.