



Figure 37-1. Schematic illustrating differences in body temperature response during exercise related to hydration status.

provide the scientific evidence for the relationship between hydration status and body temperature during exercise.

Hydration Status and Its Effect on Thermoregulation

In order to understand how hydration status affects thermoregulation, it is important to understand the basics of thermoregulation. Increased sweat rate and skin blood flow during exercise are the primary thermoregulatory responses to dissipate heat from the body. If sweat rate or blood flow is modulated, thermoregulation, and thus body temperature, will be affected. Indeed, when individuals are dehydrated, skin blood flow and sweat rate are impaired.