

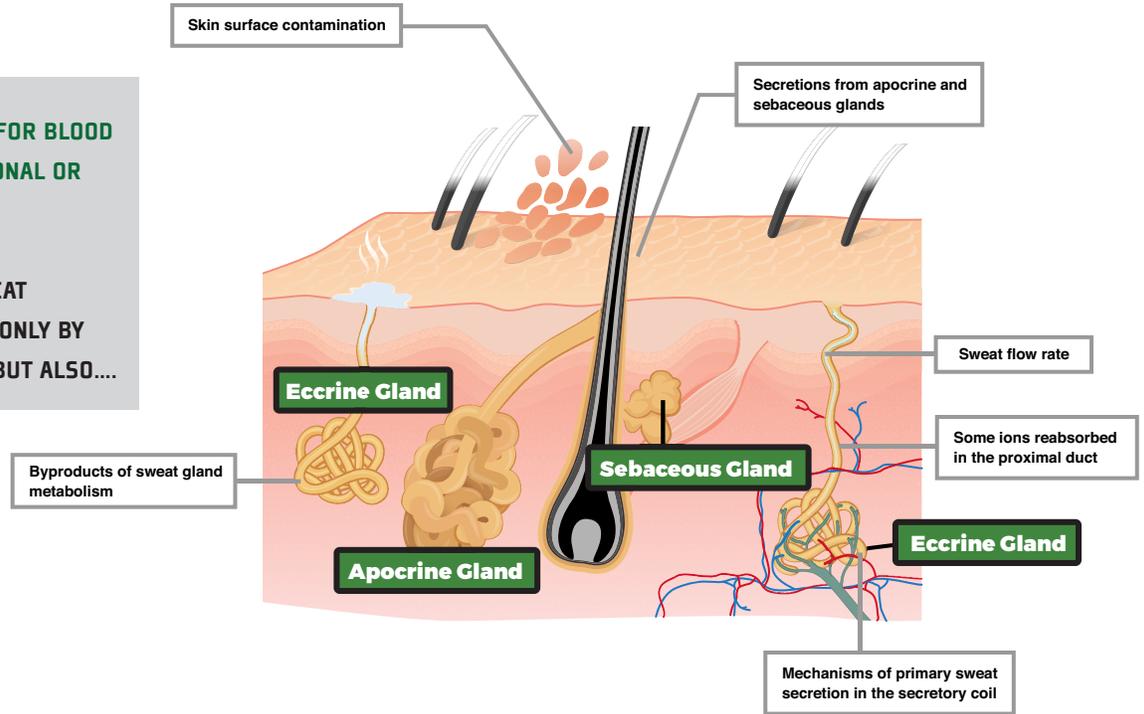
PHYSIOLOGICAL MECHANISMS DETERMINING ECCRINE SWEAT COMPOSITION

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FOR MORE INFORMATION, SEE THE PAPER ON WHICH THIS INFOGRAPHIC IS BASED, FOUND IN THE FOLLOWING REFERENCE:
[Link to Full text](#)

CAN SWEAT BE USED AS A PROXY FOR BLOOD OR AS A BIOMARKER FOR NUTRITIONAL OR PHYSIOLOGICAL STATUS?

IN MOST CASES, NO, BECAUSE SWEAT COMPOSITION IS INFLUENCED NOT ONLY BY BLOOD SOLUTE CONCENTRATIONS BUT ALSO....



Solutes that appear in sweat at higher concentrations than that of blood:

Solutes that are relatively dilute (less concentrated) in sweat vs. blood:

Lactate (derived from sweat gland metabolism)
Trace minerals, amino acids, cortisol (contamination derived from skin cells)
Urea, ammonia, cytokines (derived from sweat gland metabolism and skin cells)

Sodium, chloride, bicarbonate (because of reabsorption in the sweat gland duct)
Glucose, cytokines, cortisol (because of limitations in transport across/between cells of the sweat gland)

KEY TAKEAWAYS



- Sweat electrolyte concentrations are not predictive of hydration status or sweating rate
- Sweat metabolite concentrations are not a reliable biomarker for exercise intensity or other physiological stressors
- Glucose, cytokine, and cortisol research is too limited to suggest that sweat is a useful proxy for blood

