

# MULTIPLE REGRESSION ANALYSES TO DETERMINE THE EFFECT OF SWEATING RATE AND TATTOO CHARACTERISTICS ON SWEAT OUTCOME MEASURES DURING EXERCISE

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FOR MORE INFORMATION, SEE THE PAPER ON WHICH THIS INFOGRAPHIC IS BASED, FOUND IN THE FOLLOWING REFERENCE:  
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The purpose of this study was to compare local sweating rate (LSR) and local sweat sodium ( $[Na^+]$ ), chloride ( $[Cl^-]$ ), and potassium ( $[K^+]$ ) concentrations of tattooed skin and contralateral non-tattooed skin during exercise.

## PARTICIPANTS

**33** recreational exercisers with  $\geq 1$  unilateral permanent tattoo on the torso/arms



17 male



16 female

## TYPES OF EXERCISE



Running



Cycling



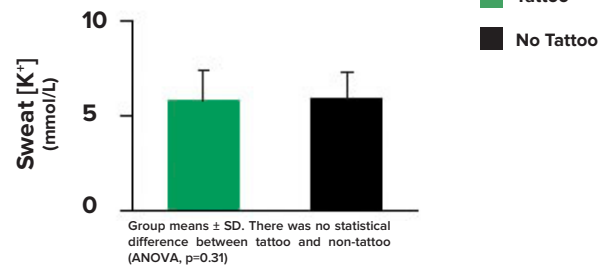
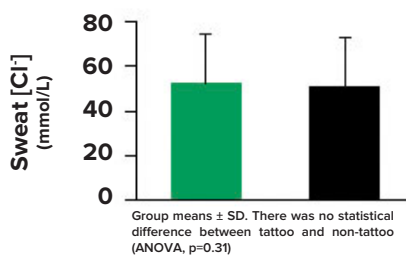
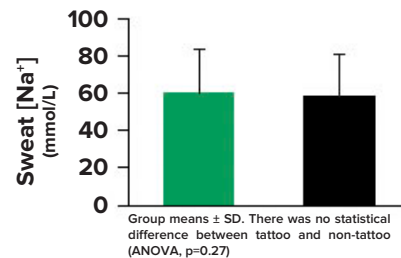
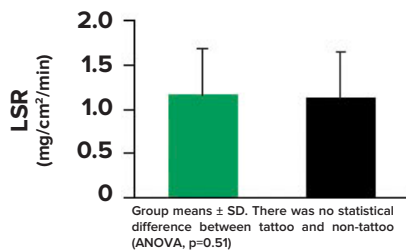
Fitness



## RESULTS



Based on the analysis of variance results, there were **no differences** between tattooed and non-tattooed skin for LSR, sweat  $[Na^+]$ , sweat  $[Cl^-]$ , or sweat  $[K^+]$ .



Multiple regression analyses suggested that younger tattoos were associated with **higher sweat  $[Na^+]$**  ( $p = 0.045$ ) and colorful tattoos were associated with **higher sweat  $[Cl^-]$**  ( $p = 0.04$ ) compared with contralateral non-tattooed skin. There were **no effects** of LSR or tattoo characteristics on regression models for LSR or sweat  $[K^+]$ .

## CONCLUSION

The overall results of this study suggest there are no effects of tattoos on LSR and sweat  $[K^+]$  and marginal effects on sweat  $[Na^+]$  and  $[Cl^-]$  during exercise.

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