

# LACTATE

WHAT'S ALL THE FUSS ABOUT?



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MOLECULES OF ADENOSINE TRIPHOSPHATE ARE PRODUCED FOR EVERY

MOLECULE OF GLUCOSE ENTERING THE KREBS CYCLE

PRODUCTION OF **ATP** IS KEY TO CELLULAR METABOLIC FUNCTION



IN **ANAEROBIC** CONDITIONS

CELLS RELY ON GLYCOLYSIS.

INCREASED GLYCOLYSIS CREATES AN INCREASE IN PYRUVATE.

TO SUPPORT OXIDATION AND REDUCTION OF NADH TO NAD<sup>+</sup> AND BACK, IN ANAEROBIC RESPIRATION NAD<sup>+</sup> REGENERATION IS RELIANT ON THE REDUCTION OF PYRUVATE TO LACTATE.



WHY DOES **LACTATE** RISE IN SEPSIS?

TRADITIONAL THINKING



MARIK & BELLOMO

GLOBAL HYPOPERFUSION



HYPOXIC METABOLISM

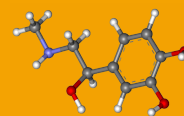


INCREASED PYRUVATE



INCREASED LACTATE

ADRENALINE



HYPERMETABOLIC STATE



INCREASED PYRUVATE



INCREASED LACTATE

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