

Sweet music: how taste may improve dance performance

Taste is a homeostatic function that conveys valuable information such as energy content, or toxicity of foods. Taste is not limited to the mouth and has the potential to affect and interact with multiple physiological systems, such as the brain, the gastrointestinal tract and muscles. In this presentation, the potential performance enhancing mechanisms of sweet, bitter, hot and cold tastes administered prior to and during exercise performance are examined. Carbohydrate mouth rinsing is shown to affect perceptions of energy availability; quinine and caffeine rinsing has also been shown to improve short duration, power performance – although ingestion of bitter tastants is seemingly required to enhance performance. Hot and cold tastes may prove beneficial in circumstances where athletes' thermal state may be challenged. Effectiveness is not limited to taste alone, extending to dedicated receptors throughout the digestive tract, relaying signals pertaining to energy availability and temperature to appropriate neural centres.