

Exercise-Associated Muscle Cramping: What you need to know!



Exercise-associated muscle cramping (EAMC) is a common occurrence in high intensity activities and can prevent athletes from being able to participate in practice or competition. This can be painful and frustrating for athletes, and can be a limiting factor for their teams. There are multiple factors that contribute to EAMC and individuals with a history of EAMC are more prone to future episodes.

Contributing Factors

- Environmental factors and increased exercise intensity can contribute to dehydration
- Exceeding prior activity levels may cause muscle damage and pain
- Lack of sleep, proper nutrition, and proper hydration decrease energy availability and increase chance of fatigue development
- Medical and genetic conditions, supplements and stimulants, and stress alter nervous system function
- Prior cramping during that session or history of cramping increasing likelihood of EAMC
- **These factors increase nerve activity and exceed the muscle's capacity to control contractions leading to sustained EAMC**



Signs and Symptoms of Exercise-Associated Muscle Cramping

Precramping
Muscle twitching and feelings of heightened muscle activation
Mild or moderate
Localized cramping within a muscle or muscle group; painful, sustained muscle spasm; usually resolves with removal from activity and treatment
Severe (may be sign of serious systemic condition)
Localized or generalized EAMC (e.g. both legs); typically accompanied by more serious symptoms, such as dark urine, vomiting, dizziness, or altered consciousness

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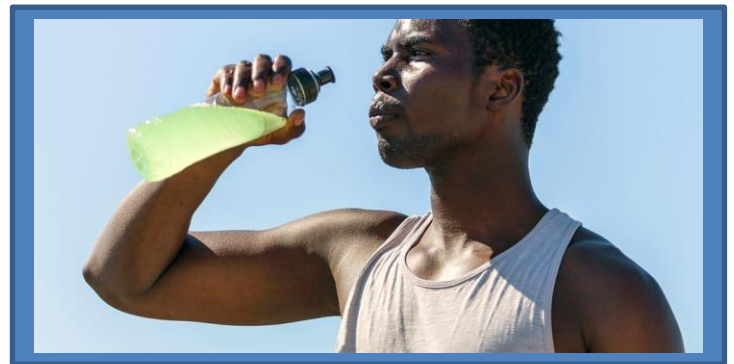
Treatment of EAMC

- Rest from activity and placed in a position of comfort
- Gentle stretching has been proven as one of the most effective treatments to relieve cramping
- Rehydration is important to re-establish balance of fluid and electrolytes
- Pickle juice, mustard packets, and food/beverages with vinegar, cinnamon, ginger, or chili products may affect nervous system factors to relieve cramping



Prevention of EAMC

- Must be targeted at likely causes, which vary between individuals
- “Salty sweaters” may require sports drinks before and during activity
- Hydration status should be monitored throughout the day by observing urine color; avoid stimulants if dehydration is concern
- Strength and endurance training of associated muscles has been shown to delay cramping onset
- Proper nutrition enhances performance and energy reserves



BE PROACTIVE!

Take notes of when cramping occurs and any known factors, then address those concerns directly.

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