

## Introduction

This Fact Sheet provides information on muscle twitches and cramps, when you should seek advice and what treatment is available.



## What are the common causes of muscle twitches and cramps?

Muscle twitching and cramps are common normal symptoms, occasionally they may indicate an underlying neurological condition but are nearly always benign. In one study over 50% of the population had muscle fasciculation and 37% of had muscle cramps in a single year.

Common causes	Description
<b>Blepharospasm</b>	This is bilateral repeated eye closure (blinking) due to overactivity of the orbicularis oculi muscle. Benign, and can cause effective blindness in more severe cases.
<b>Hemifacial spasm</b>	Unilateral eye blinking with upwards twitching of the corner of the mouth.
<b>Muscle cramps</b>	The sudden involuntary painful contraction of an isolated muscle cramp is usually benign and commonly worsened by exercise, dehydration, or pregnancy, and especially sleep in the elderly (sleeping with feet plantarflexed). Occasionally, when profound and/or associated with other symptoms such as weakness, they may indicate underlying neuromuscular disease. Metabolic disorders may also cause cramp.
<b>Muscle fasciculation</b>	Usually seen or felt, most commonly in the calves and after exercise, but may be more widespread. They can be associated with cramps and, in the absence of weakness, are usually “benign cramp/fasciculation syndrome”. Nearly always benign. Health-related anxiety (Motor Neurone Disease (MND) specifically) can amplify them.
<b>Myokymia</b>	Painless repetitive muscle fibre twitching, commonly seen around the eye or first dorsal interosseous muscle. Nearly always benign.
<b>Myotonia</b>	Described by patients as muscle stiffness or discomfort rather than visible twitching with an inability to relax a muscle. It's rare and suggests underlying neuromuscular disease (e.g. myotonic dystrophy or neuromyotonia).



### What questions should I ask?

- Is there any weakness? – if so, this would suggest referral appropriate.
- Is there a family history (common in benign cramp-fasciculation syndrome)?
- Are they on medications that might cause the symptoms of electrolyte imbalance (e.g. diuretics, methylphenidate etc)?
- Is it nocturnal only – if so, any symptoms to suggest restless legs syndrome?
- What are they concerned about? Most people will be reassured with careful explanation that isolated fasciculation is common, but occasionally this can evolve into health-related anxiety which in turn can amplify fasciculation. Health anxiety, especially common in health professionals, requires explicit explanation and avoidance of repeated reassurance.



### What tests should I do in primary care?

- Biochemical screen including Urea and Electrolytes (U&Es), calcium and Thyroid Function Tests (TFTs).
- Creatine kinase (trivial increase about reference range rarely relevant).



### What treatment should I do in primary care?

Condition	Treatment	When to seek advice from Neurology
Cramps	Calf muscle stretches before bed. Reduce diuretics/caffeine. Vitamin B complex, Diltiazem, Quinine (recommended short course).	Unusually profound/debilitating and/or associated symptoms, notably weakness.
Myokymia	Explanation and reassurance.	Any neurological symptoms other than myokymia.
Fasciculation	Explanation and reassurance. If severe then treatment of health anxiety.	Any wasting/weakness, or very florid or widespread, or with severe cramp.
Blepharospasm/hemifacial spasm	Conservative or botulinum toxin.	If causing problems.



### References:

- Dijkstra JN, Boon E, Kruijt N, et al. *Pract Neurol* 2023;23:23–34.  
Erogu M. The perils of being your own doctor. *Guardian* 4 Aug 2016 (article about benign fasciculation).