

MUSICIAN'S FOCAL DYSTONIA

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Background

This Factsheet has been developed jointly by the British Association for Performing Arts Medicine (BAPAM), the Association for British Orchestras (ABO) and the Musicians' Union (MU) to raise awareness of Musician's Focal Dystonia (MFD). Most musicians are unlikely to encounter this condition, but because it is so uncommon, there is a need for this guidance.

The document provides a brief overview of symptoms and possible risk factors, and suggestions for prevention and management. Advice for employers, including orchestra managers, and sources of further advice and support are also included.

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What is Musician's Focal Dystonia?

Dystonia is a neurological condition that affects movement. It causes involuntary muscle spasm leading to abnormal movements and postures of the affected part of the body. Dystonia has many different causes and can affect people in many different ways.

'Task-specific' focal dystonia is a type of dystonia where the involuntary, abnormal movements and postures affect a highly specific, skilled task, impairing control and precision. Writer's dystonia (or 'cramp') and golfer's 'yips' are examples of task-specific focal dystonia affecting the hand.

Musicians may develop a form of task-specific dystonia known as '**Musician's Focal Dystonia (MFD)**'. Most cases of MFD affect the upper limb (hands, fingers, wrist or forearm) in guitarists, pianists and string players. However, brass or wind players may also experience MFD in the hands and in areas relating to embouchure (mouth, lips, cheeks, jaw or tongue). Percussionists may develop dystonia in the foot.

What are the symptoms of MFD?

The main symptoms of MFD are involuntary and abnormal movements, which are often painless, and a lack of co-ordination whilst carrying out a highly skilled and rehearsed activity. Tremor may also be experienced.

When MFD affects fingers, hands or wrists, musicians may notice a loss of fluidity in their playing and a tendency for the affected area to pull into an abnormal posture during playing. Other muscles such as the shoulder are also occasionally affected.

When MFD affects the embouchure, musicians often report being unable to position the instrument against the mouth, or to pitch or articulate notes correctly, experiencing escape of air or a tremor in the note when it is being held.

The function of the affected part of the body may be normal for all other tasks, although the problem can also spread to fine dexterous tasks such as writing, typing, doing up buttons and so on.

MFD can cause very significant and career-limiting disability. In attempting to control the problem, musicians often develop secondary symptoms, including abnormal muscle activity elsewhere in the body, which can lead to pain and further impairment. Affected musicians may also become anxious and frustrated about their impaired performance skills.

What causes MFD and can it be prevented?

It is generally thought that MFD is associated with changes in parts of the brain which control skilled and repetitive movements, disrupting nerve signals to the affected areas. Various possible causes have been suggested, but evidence for any one particular cause is not yet conclusive.

MFD is not a degenerative disease or progressive condition, and is not normally the result of brain damage.

Some musicians may be more susceptible to MFD than others, but personal risk factors have yet to be identified.

Onset of MFD is often associated with performance-related stress and practice habits. Healthy performance techniques may reduce the risk (and are likely to be beneficial in preventing a range of performance-related problems).

Musicians may benefit from practice regimes such as:

- Avoid over-practising, particularly to the point of causing pain or musculoskeletal strain
- Avoid marked changes in technique, especially rapidly and under pressure
- Take regular breaks
- Do a physical warm-up before playing
- Do gentle stretches (once warmed up)
- Adopt stress management techniques

Detailed guidance on healthy performance practice is available in BAPAM's factsheets which are free to download from the Health Education section of BAPAM's website www.bapam.org.uk

How do you know if you suffer from MFD and what can you do?

MFD is uncommon (affecting an estimated 1-2% of musicians) and most musicians experiencing adverse performance-related symptoms will not have MFD. Young musicians (under 40) often experience musculoskeletal symptoms which may be corrected through changes in performance practice, whilst older musicians may develop age-related musculoskeletal problems which are widespread in the general population and managed by standard medical treatments. Seeking appropriate medical advice and getting an accurate diagnosis is therefore crucial.

Musicians experiencing some of the initial symptoms of MFD - such as clumsiness in playing, 'disobedient' fingers, or loss of embouchure control often assume that the problem arises from faults in their technique or from under-rehearsal. They may therefore try to deal with the changes by increasing practice time, which can lead to further symptoms. The problem may go unrecognised for some time due to lack of awareness on the part of the musician or their healthcare professional. Musicians may also keep the condition secret due to anxiety about the career implications.

Because MFD is uncommon and routine clinical examination may prove normal, musicians who have unexplained symptoms and are concerned they may have the condition should seek advice from a performing arts specialist which includes an assessment of them playing their instrument.

No simple diagnostic test is available, but electrical studies of nerve conduction and muscle contraction are sometimes used to reveal the affected (dystonic) muscles.

Affected individuals need rapid access to assessment by a neurologist and other specialists if necessary. We would suggest arranging an appointment in a clinic run by BAPAM (assessment is free) and also asking your NHS GP about a referral to a neurologist with a special interest in movement disorders.

What treatments are available?

Whilst some musicians may respond well to treatments and the condition can be managed, there is no known 'cure'. Recommended interventions may include the following:

Botulinum toxin injections can control excess activity in dystonic muscles, although the effects are often short-lived and some side effects may be experienced. Nerve conduction studies are used to pinpoint the best site for the injection if this is the chosen treatment strategy.

Drugs commonly used to treat movement disorders such as Parkinson's Disease are sometimes effective, although reliable research evidence is not yet available.

Proprioceptive training involving brief spells of electrical stimulation of the brain via surface electrodes has been shown to have some benefits, although again, further research is needed.

Behavioural techniques are designed to correct the faulty communication between the affected area of the body and the brain. Examples include sensory re-education (matching and palpating objects to enhance sensory discrimination), sensory motor re-tuning (constraint-induced movement therapy), mirror treatment (re-education of affected muscles using visual feedback from unimpaired areas) and Slow down exercise treatment (manipulating speed of playing).

Some preliminary research on long-term outcomes suggests that the majority of musicians diagnosed with MFD remain within the profession, although they may not be able to return to levels of performance attained before the onset of symptoms.

Due to the complex and individualistic nature of the condition, the management approach needs to be multi-disciplinary, involving both medical and rehabilitative care. Accessing such care outside the NHS can prove challenging.

Advice for employers:

Impairments in playing ability arising from MFD may raise difficult work-related issues for employers of musicians. However, employers must abide by all relevant employment, duty of care and health and safety legislation. Employers of musicians should be aware of, and pay attention to, the possible risk factors for MFD as outlined above. BAPAM can provide advice on healthy performance practice through free assessments, online resources and an educational programme relevant to musicians and employers.

The ABO www.abo.org.uk also produces factsheets for members.

In light of the fact that equal work exposure of two musicians playing the same instrument may be associated with the development of MFD in one player but not the other, it seems unlikely that employer liability would be an issue under satisfactory working conditions.

The timescales of professional performing are often not well aligned with the typical pace of specialist NHS referral for assessment and treatment, and employers need to be sensitive to the fact that the care pathway for a musician affected by MFD can be complex and protracted. Employment legislation requires that greater protection must be afforded the more vulnerable employee.

MFD affecting the upper limb – but not embouchure - is a category of ‘task-specific focal dystonia of the hand and forearm’ in the UK. It is listed as a Prescribed Disease category A4 (see the Department for Work and Pensions publication Industrial Diseases Disablement: Technical Guidance, May 2015 available at www.gov.uk) under which an individual with employee status (but not freelance) in the UK may be eligible for DWP benefits related to disability or loss of earnings. At the time of writing, BAPAM is not aware of an instance of a claim being made in this respect. Any affected player should be advised and supported in pursuing such possible eligibility.

BAPAM is pleased to receive enquiries from individual performers in relation to their health and welfare, and will treat them in the strictest confidence. However, BAPAM cannot provide free occupational health advice to employers, unions, representative bodies, educational institutions or other interested parties.

Further Information:

The Dystonia Society website provides information on focal hand dystonia in musicians as well as more general advice and support www.dystonia.org.uk

Healthy performance factsheets and information can be found in the Health Education section of BAPAM’s website www.bapam.org.uk

References:

Jabusch, H & Altenmuller, E. Focal dystonia in musicians. From phenomenology to therapy. *Advances in Cognitive Psychology*, 2006 (2; no 2-3), 207-220

Katherine Butler, Clinical Specialist in Hand Therapy, has a number of Publications on MFD including overviews of medical and rehabilitative treatments. See www.londonhandtherapy.co.uk - Publications.

Disclaimer:

BAPAM, the ABO and the MU provide the information in this publication as general information only. It is not intended to provide instruction and you should not rely on this information to determine diagnosis, prognosis or a course of treatment or used in place of a professional consultation with a doctor.

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