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## University of Birmingham Research at Birmingham

## The Location of Peak Upper Trapezius Muscle **Activity During Submaximal Contractions is not** Associated With the Location of Myofascial Trigger Points: New Insights Revealed by High-density Surface EMG

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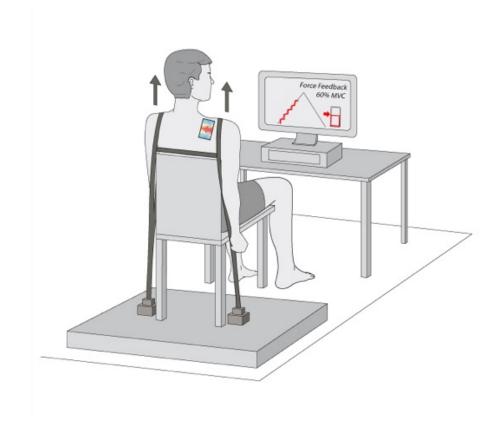


Figure 1

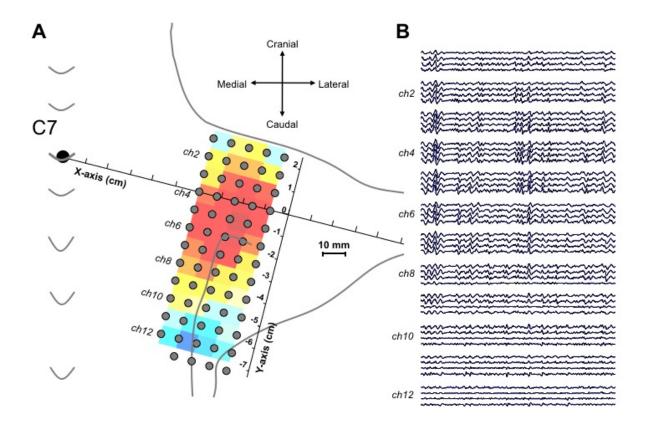


Figure 2

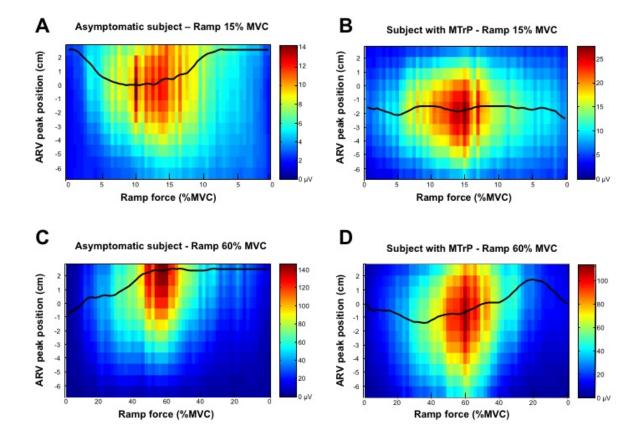


Figure 3

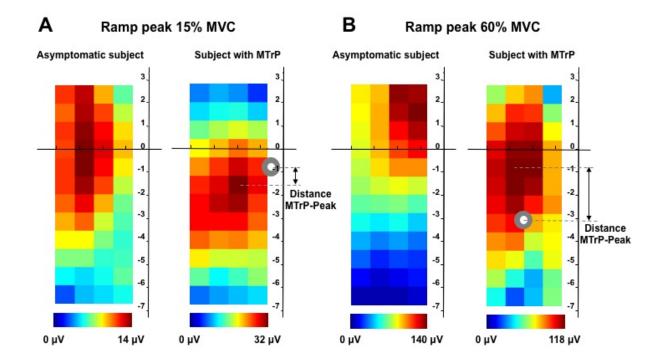


Figure 4

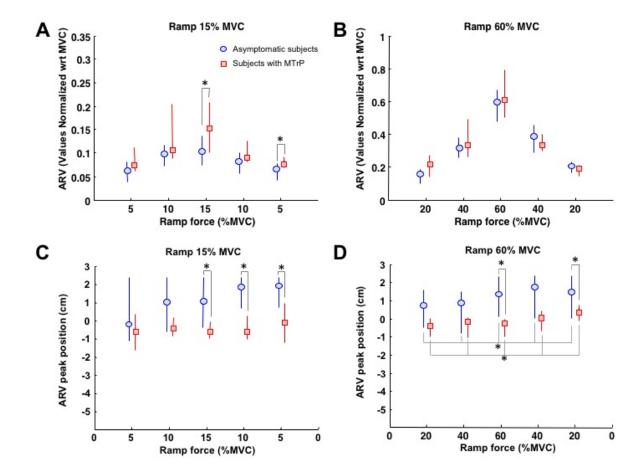


Figure 5

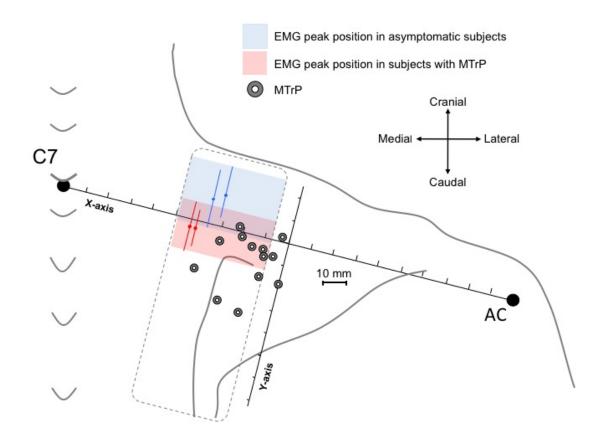


Figure 6

Subject	Taut band	Spot tenderness	Pain recognition	Referred pain	MTrP Coordinate (x cm; y cm)	PPT (Kg/cm²)
1	+	+	+	-	(-0.9 ; -1.7)	1.4
2	+	+	+	2	(-2.0; -0.2)	1.6
3	+	+	+	-	(0; -1.8)	1.8
4	+	+	+	5	(-1;-0.5)	1.7
5	+	+	2	+	(-2.2; 0.2)	1.5
6	+	+	+	-	(-0.5 ; -0.7)	1.8
7	+	+	+	+	(-2.4; -3.1)	1.6
8	+	+	+	+	(-2.9 ; -0.6)	2.1
9	+	+	+	+	(-1.5 ; -0.5)	1.1
10	+	+	+	+	(-0.9; -0.8)	1.9
11	+	+	+	+	(-3.7;-2)	1.3
12	+	+	+	+	(-0.3; 0.2)	1.3
13	+	+	+	+	(-1.4; -3.4)	1.1

Table 1

Force errors (%TF)

F	701 <u>00000000000000000000000000000000000</u>			
Force ramp	Asymptomatic	MTrP	р	
Up 15%	4.7 (3.4)	6.1 (3.6)	0.574	_
Down 15%	5.9 (2.2)	6.1 (2.3)	0.538	
Up 60%	4.2 (2.6)	4.7 (2.6)	0.538	
Down 60%	6.6 (3.7)	7.3 (4)	0.611	