

# Mapping the Body: Developing Body Maps as Research Tool to Derive Quantifiable and Context-Sensitive Design Insights

## SUPPLEMENTARY MATERIAL

### 0.1 Study 1 Participants Group Assignment Criteria

84 healthy participants (mean age  $\pm$  SD: 25.08  $\pm$  7.38 years, range: 18-53, naïve to the study aim) were recruited through the Universidad Carlos III de Madrid participant pool, public advertisements, social networking sites, and flyers. They were pre-screened for SED by means of the Spanish version of the Eating Disorder Examination Questionnaire (EDEQ) [3] and for PA levels using the Spanish version of the International Physical Activity Questionnaire (IPAQ) [2], using a group classification according to [4]. Four equally-sized groups (LOW PA-LOW ED; LOW PA-HIGH ED; HIGH PA-LOW ED; HIGH PA-HIGH ED), were created, based on the predetermined study criteria (see [1]). Note that LOW and HIGH PA groups differed significantly in their PA scores ( $t=9.85$ ,  $p<0.001$ ) and that LOW and HIGH ED groups differed also significantly in their ED scores ( $t=-9.61$ ,  $p<0.001$ ).

### 0.2 Body Maps Areas

Body maps were divided, according to Table 1, in the areas showed in Figure 1.

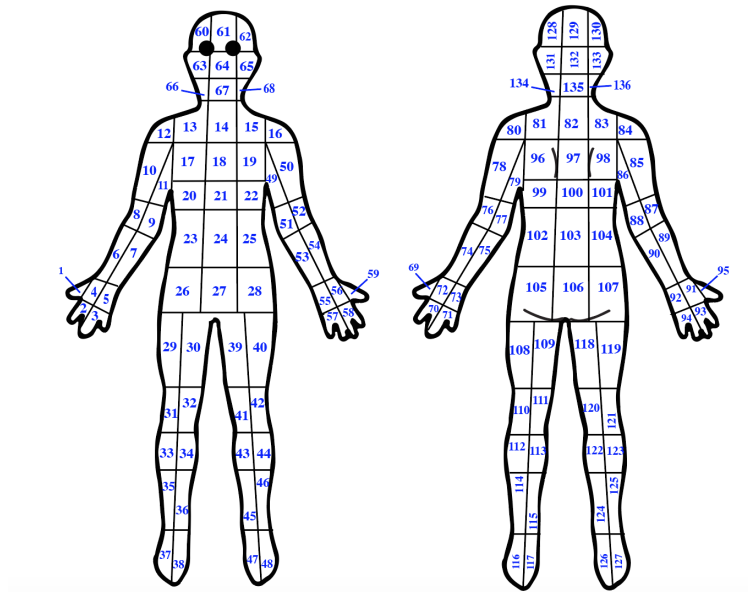


Fig. 1. Body Maps division in 136 areas

Table 1. Body maps areas division

Zone	Area Number.
FLOuterHand	[56,58,59].
FLInnerHand	[55,57].
FLPalm	[55,56].
FLRingPink	[57].
FLIndexMiddle	[58].
FLThumb	[59].
FLForeArm	[53,54].
FLInnerForeArm	[53].
FLOuterForeArm	[54].
FLElbow	[51,52].
FLInnerElbow	[51].
FLOuterElbow	[52].
FLUpperArm	[16,49,50].
FLShoulder	[16].
FLInnerUpperArm	[49].
FLOuterUpperArm	[50].
FLOuterArm	[16,50,52,54].
FLInnerArm	[49,51,53].
FLArm	[16,49,50,51,52,53,54,55,56,57,58,59].
FForehead	[60,61,62].
FRTemple	[60].
FLTemple	[62].
FMiddleForehead	[61].
Nose	[64].
FEars	[63,65].
FREar	[63].
FLEar	[65].
FMouthChin	[67].
FRNeck	[66].
FLNeck	[68].
FNeck	[66,67,68].
FMiddleFace	[63,64,65].
FRMiddleFace	[60,63,66].
FLMiddleFace	[62,65,68].
FHead	[60,61,62,63,64,65,66,67,68].
FLInnerFoot	[47].
FLOuterFoot	[48].
FLFoot	[47,48].
FLInnerShin	[45].
FLOuterShin	[46].
FLShin	[45,46].
FLInnerKnee	[41].
FLOuterKnee	[42].
FLKnee	[41,42].
FLInnerCalf	[43].
FLOuterCalf	[44].
FLCalf	[43,44].
FLInnerThigh	[39].
FLOuterThigh	[40].
FLThigh	[39,40].
FLLeg	[39,40,41,42,43,44,45,46,47,48].
FLOuterLeg	[40,42,44,46,48].
FLInnerLeg	[39,41,43,45,47].
FLUpperInnerLeg	[39,41].
FLUpperOuterLeg	[40,42].
FLLowerInnerLeg	[43,45].
FLLowerOuterLeg	[44,46].
FRHip	[26].
FLHip	[28].
FHips	[26,27,28].
FWaist	[23,24,25].
FChest	[17,18,19,20,21,22].
FUpperChest	[17,18,19].
FLowerChest	[20,21,22].
FClavicle	[13,14,15].
FFullClavicle	[12,13,14,15,16].
FShoulder	[12,16].

FLowerTorso	[23,24,25,26,27,28].
FUpperTorso	[13,14,15,16,17,18,19,20,21,22].
FRUpperTorso	[13,17,20].
FLUpperTorso	[15,19,22].
FRLowerTorso	[23,26].
FLLowerTorso	[25,28].
FbellyButton	[24].
FMiddleTorso	[14,18,21,24,27].
FTorso	[13,14,15,17,18,19,20,21,22,23,24,25,26,27,28].
FRHand	[5,4,3,2,1].
FROuterHand	[4,2,1].
FRInnerHand	[5,3].
FRPalm	[4,5].
FRKingPink	[3].
FRIndexMiddle	[2].
FRThumb	[1].
FRForeArm	[7,6].
FRInnerForeArm	[7].
FROuterForeArm	[6].
FRElbow	[9,8].
FRInnerElbow	[9].
FROuterElbow	[8].
FRUpperArm	[12,11,10].
FRShoulder	[12].
FRInnerUpperArm	[11].
FROuterUpperArm	[10].
FROuterArm	[12,10,8,6].
FRInnerArm	[11,9,7].
FRArm	[12,11,10,9,8,7,6,5,4,3,2,1].
FRInnerFoot	[38].
FROuterFoot	[37].
FRFoot	[38,37].
FRInnerShin	[36].
FROuterShin	[35].
FRShin	[36,35].
FRInnerKnee	[32].
FROuterKnee	[31].
FRKnee	[32,31].
FRInnerCalf	[34].
FROuterCalf	[33].
FRCalf	[34,33].
FRInnerThigh	[30].
FROuterThigh	[29].
FRThigh	[30,29].
FRLeg	[30,29,32,31,34,33,36,35,38,37].
FROuterLeg	[29,31,33,35,37].
FRInnerLeg	[30,32,34,36,38].
FRUpperInnerLeg	[30,32].
FRUpperOuterLeg	[29,31].
FRLowerInnerLeg	[34,36].
FRLowerOuterLeg	[33,35].
BHead	[128,129,130,131,132,133,134,135,136].
BNape	[134,135,136].
BLNape	[134].
BRNape	[136].
BLowerHead	[131,132,133].
BUpperHead	[128,129,130].
Bskull	[128,129,130,131,132,133].
BBottom	[105,106,107].
BWaist	[102,103,104].
BLowerChest	[99,100,101].
BUpperBack	[81,82,83].
BFullShoulders	[80,81,82,83,84].
BShoulders	[80,84].
BChest	[96,97,98,99,100,101].
BSpine	[82,97,100,103,106].
BLBack	[81,96,99,102,105].
BRBack	[83,98,101,104,107].
BLowerTorso	[102,103,104,105,106,107].

BUpperTorso	[81,82,83,96,97,98,99,100,101],
BScapula	[96,98],
BUpperSpine	[82,97],
BLowerSpine	[103,106],
BLBottom	[105],
BRBottom	[107],
BLHand	[73,72,71,70,69],
BLOuterHand	[72,70,69],
BLInnerHand	[73,71],
BLPalm	[73,72],
BLRingPink	[71],
BLIndexMiddle	[70],
BLThumb	[69],
BLForeArm	[75,74],
BLInnerForeArm	[75],
BLOuterForeArm	[74],
BLElbow	[77,76],
BLInnerElbow	[77],
BLOuterElbow	[76],
BLUpperArm	[80,79,78],
BLShoulder	[80],
BLInnerUpperArm	[79],
BLOuterUpperArm	[78],
BLOuterArm	[80,78,76,74],
BLInnerArm	[79,77,75],
BLArm	[80,79,78,77,76,75,74,73,72,71,70,69],
BRHand	[92,91,94,93,95],
BROuterHand	[91,93,95],
BRInnerHand	[92,94],
BRPalm	[92,91],
BRRingPink	[94],
BRIndexMiddle	[93],
BRThumb	[95],
BRForeArm	[90,89],
BRInnerForeArm	[90],
BROuterForeArm	[89],
BRElbow	[88,87],
BRInnerElbow	[88],
BROuterElbow	[87],
BRUpperArm	[84,86,85],
BRShoulder	[84],
BRInnerUpperArm	[86],
BROuterUpperArm	[85],
BROuterArm	[84,85,87,89],
BRInnerArm	[86,88,90],
BRArm	[84,86,85,88,87,90,89,92,91,94,93,95],
BLInnerFoot	[117],
BLOuterFoot	[116],
BLFoot	[117,116],
BLInnerShin	[115],
BLOuterShin	[114],
BLShin	[115,114],
BLInnerKnee	[111],
BLOuterKnee	[110],
BLKnee	[111,110],
BLInnerCalf	[113],
BLOuterCalf	[112],
BLCalf	[113,112],
BLInnerThigh	[109],
BLOuterThigh	[108],
BLThigh	[109,108],
BLLeg	[109,108,111,110,113,112,115,114,117,116],
BLOuterLeg	[108,110,112,114,116],
BLInnerLeg	[109,111,113,115,117],
BLUpperInnerLeg	[109,111],
BLUpperOuterLeg	[108,110],
BLLowerInnerLeg	[113,115],
BLLowerOuterLeg	[112,114],
BRInnerFoot	[126],

BROuterFoot	[127],
BRFoot	[126,127],
BRInnerShin	[124],
BROuterShin	[125],
BRShin	[124,125],
BRInnerKnee	[120],
BROuterKnee	[121],
BRKnee	[120,121],
BRInnerCalf	[122],
BROuterCalf	[123],
BRCalf	[122,123],
BRInnerThigh	[118],
BROuterThigh	[119],
BRThigh	[118,119],
BRLeg	[118,119,120,121,122,123,124,125,126,127],
BROuterLeg	[119,121,123,125,127],
BRInnerLeg	[118,120,122,124,126],
BRUpperInnerLeg	[118,120],
BRUpperOuterLeg	[119,121],
BRLowerInnerLeg	[122,124],
BRLowerOuterLeg	[123,125],

## 1 SUPPLEMENTARY RESULTS

### 1.1 Body Maps Results - Graphs

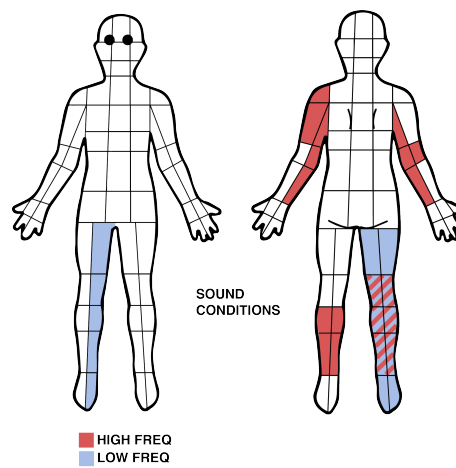


Fig. 2. Body Map results for overall sound effects

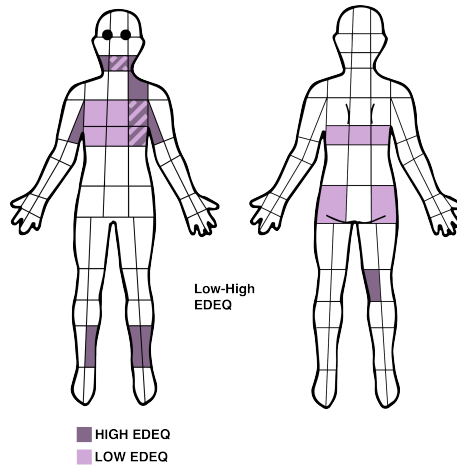


Fig. 3. Body Map results on LOW EDEQ Group

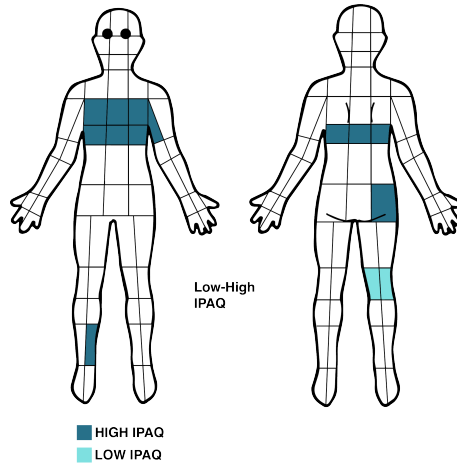


Fig. 4. Body Map results for HIGH IPAQ Group

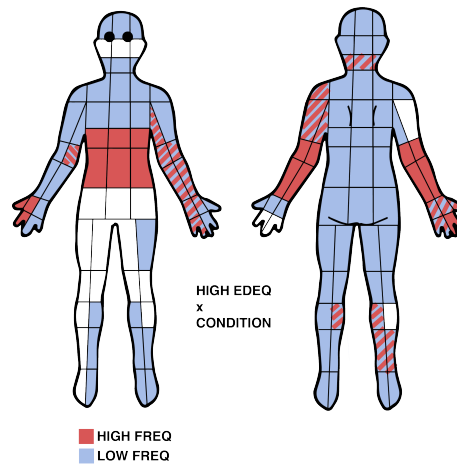


Fig. 5. Body Map results for sound effects on HIGH EDEQ Group

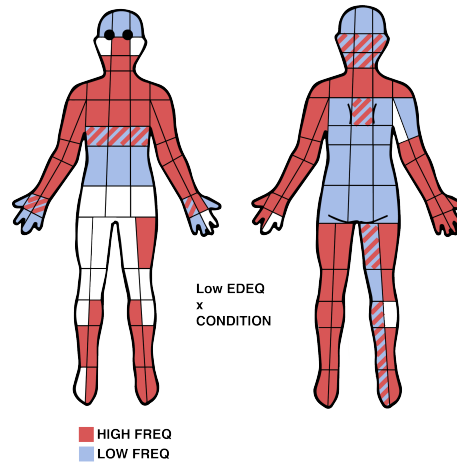


Fig. 6. Body Map results for sound effects on LOW EDEQ Group

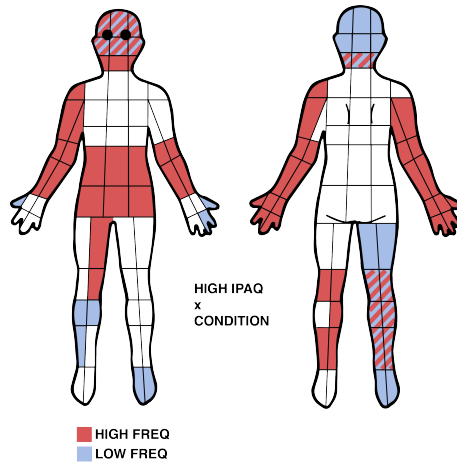


Fig. 7. Body Map results for sound effects on HIGH IPAQ Group

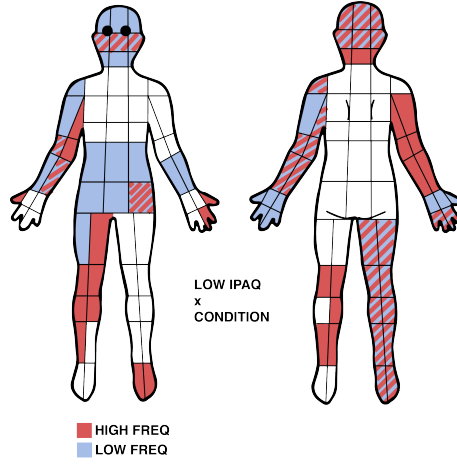


Fig. 8. Body Map results for sound effects on LOW IPAQ Group

## 2 BODY MAP RESULTS - AREA MEANS

Significance level—asterisks denote significant differences between means (\*\* denotes  $p < .005$ , \* denotes  $p < .05$ ).

Table 4. LOW VS HIGH EDEQ

Zone	Significance level	LOW EDEQ	HIGH EDEQ
FLInnerUpperArm	**	0.06	0.07
FMouthChin	*	0.01	0.01
FLNeck	*	0.01	0.02
Fneck	*	0.02	0.02
FLInnerShin	*	0.12	0.15
FLOuterShin	*	0.11	0.14
FLShin	*	0.12	0.15
Fchest	*	0.11	0.14
FLowerChest	**	0.08	0.05
FLUpperTorso	*	0.11	0.17
FRInnerUpperArm	*	0.05	0.06
FRInnerShin	*	0.11	0.14
BLowerChest	*	0.1	0.07
BLBottom	*	0.1	0.08
BRBottom	*	0.1	0.08
BRInnerKnee	*	0.14	0.15

Table 5. LOW VS HIGH IPAQ

Zone	Significance Level	LOW IPAQ	HIGH IPAQ
Fchest	*	0.07	0.18
FLowerChest	**	0.02	0.11
FRInnerUpperArm	*	0.02	0.08
FRInnerShin	*	0.07	0.16
BLowerChest	*	0.04	0.13
BRBottom	*	0.04	0.12
BRInnerKnee	*	0.2	0.1
BRKnee	*	0.21	0.12

Table 6. Only Sound Conditions

Zone	Significance Level	Control	Low	High
FRInnerLeg	*	0.35	0.44	0.43
BLInnerForeArm	*	0.02	0.01	0.04
BLInnerElbow	**	0.03	0.01	0.06
BLShoulder	*	0.06	0.1	0.13
BLOuterUpperArm	*	0.05	0.04	0.09
BLInnerArm	*	0.04	0.04	0.09
BRInnerForeArm	*	0.02	0.01	0.05
BRElbow	*	0.03	0.01	0.05
BRInnerElbow	**	0.03	0.01	0.05
BRInnerArm	*	0.03	0.07	0.1
BLInnerShin	*	0.05	0.1	0.12
BLOuterShin	*	0.06	0.1	0.14
BLShin	*	0.06	0.12	0.14
BLOuterCalf	*	0.09	0.11	0.16
BLCalf	*	0.09	0.13	0.17
BLLowerInnerLeg	*	0.1	0.16	0.16
BLLowerOuterLeg	*	0.1	0.15	0.18
BRInnerShin	*	0.05	0.1	0.13
BROuterShin	*	0.05	0.1	0.12
BRShin	*	0.06	0.1	0.14

Zone	Significance Level	Control	Low	High
BRKnee	*	0.12	0.16	0.2
BRInnerCalf	*	0.08	0.12	0.16
BRcalf	*	0.1	0.13	0.18
BROuterLeg	*	0.27	0.37	0.31
BRInnerLeg	*	0.27	0.38	0.33
BRLowerInnerLeg	**	0.09	0.16	0.19
BRLowerOuterLeg	*	0.1	0.16	0.17

Table 7. LOW EDEQ + SOUND CONDITIONS

Zone	Significance Level	Control	Low	High
FLInnerHand	**	0.01	0.03	0.02
FLPalm	***	0.01	0.02	0.02
FLRingPink	**	0	0.02	0.01
FLThumb	***	0	0.02	0.01
FLForeArm	***	0.04	0.04	0.04
FLInnerForeArm	***	0.01	0.03	0.03
FLElbow	*	0.02	0.03	0.07
FLInnerElbow	***	0.02	0.02	0.07
FLOuterElbow	*	0.02	0.02	0.05
FLShoulder	***	0.07	0.03	0.09
FLOuterArm	*	0.13	0.08	0.14
FLInnerArm	***	0.05	0.09	0.1
FLArm	**	0.19	0.18	0.2
FForehead	***	0.05	0.1	0.05
Nose	***	0	0	0
FMouthChin	***	0	0.01	0.03
FRNeck	***	0.01	0	0.02
FLInnerFoot	**	0.14	0.17	0.2
FLOuterFoot	**	0.15	0.17	0.2
FLFoot	*	0.15	0.17	0.2
FLInnerShin	*	0.08	0.11	0.16
FLOuterShin	*	0.07	0.1	0.15
FLShin	*	0.08	0.11	0.17
FLOuterThigh	**	0.13	0.12	0.16
FLLowerInnerLeg	**	0.09	0.16	0.19
FWaist	***	0.12	0.26	0.17
FLowerChest	***	0.06	0.1	0.08
FShoulder	**	0.09	0.05	0.09
FUpperTorso	*	0.12	0.14	0.15
FRUpperTorso	*	0.11	0.12	0.12
FLUpperTorso	*	0.09	0.12	0.12
FbellyButton	***	0.09	0.2	0.12
FROuterHand	***	0.01	0.04	0.02
FRInnerHand	***	0.01	0.03	0.02
FRPalm	***	0.01	0.02	0.02
FRRingPink	***	0	0.02	0.01
FRIndexMiddle	***	0	0.02	0.01
FRThumb	***	0	0.02	0.01
FRForeArm	***	0.03	0.03	0.05
FROuterForeArm	***	0.03	0.03	0.05
FRInnerElbow	***	0.01	0	0.05
FROuterElbow	*	0.02	0.01	0.05
FRUpperArm	*	0.11	0.09	0.15
FRShoulder	*	0.08	0.05	0.08
FROuterUpperArm	*	0.06	0.07	0.09
FROuterArm	*	0.13	0.09	0.15
FRInnerArm	***	0.03	0.05	0.11
FRInnerFoot	**	0.15	0.18	0.19

Zone	Significance Level	Control	Low	High
FROuterShin	**	0.08	0.09	0.16
FRInnerCalf	**	0.07	0.1	0.12
FRLowerInnerLeg	*	0.11	0.14	0.19
BHead	***	0.05	0.06	0.05
BNape	**	0.02	0	0.02
BLowerHead	**	0.01	0.03	0.03
BUpperHead	***	0.03	0.06	0.04
BSkull	***	0.03	0.06	0.04
BLowerChest	***	0.07	0.12	0.1
BUpperBack	**	0.13	0.08	0.1
BFullShoulders	***	0.13	0.1	0.15
BShoulders	*	0.09	0.07	0.14
BChest	**	0.09	0.14	0.12
BLowerTorso	**	0.27	0.28	0.24
BUpperSpine	***	0.08	0.1	0.11
BLPalm	**	0	0	0.03
BLThumb	*	0	0	0.02
BLForeArm	***	0.02	0.01	0.03
BLInnerForeArm	***	0.01	0	0.03
BLOuterForeArm	**	0.02	0.01	0.03
BLElbow	***	0.01	0.01	0.05
BLOuterElbow	***	0.01	0.01	0.04
BLUpperArm	***	0.1	0.08	0.17
BLInnerUpperArm	***	0.02	0.03	0.07
BLOuterUpperArm	**	0.04	0.02	0.09
BLOuterArm	***	0.11	0.07	0.16
BLInnerArm	***	0.02	0.03	0.07
BRHand	***	0	0	0.03
BROuterHand	***	0	0	0.03
BRInnerHand	***	0	0	0.03
BRPalm	***	0	0	0.03
BRRingPink	***	0	0	0.01
BRIndexMiddle	***	0	0	0.01
BRThumb	***	0	0	0.01
BRForeArm	***	0.02	0.02	0.07
BRInnerForeArm	***	0.01	0.01	0.04
BRElbow	***	0.01	0	0.04
BRInnerElbow	***	0.01	0	0.04
BROuterElbow	***	0.01	0	0.04
BRShoulder	***	0.09	0.07	0.13
BLOuterFoot	***	0.15	0.15	0.17
BLFoot	***	0.15	0.15	0.17
BLInnerCalf	*	0.09	0.13	0.14
BLInnerThigh	*	0.07	0.06	0.13
BLOuterThigh	**	0.06	0.06	0.14
BLLeg	***	0.3	0.3	0.32
BLOuterLeg	***	0.29	0.28	0.32
BLInnerLeg	***	0.27	0.29	0.3
BRInnerFoot	***	0.15	0.16	0.18
BROuterFoot	***	0.15	0.16	0.18
BRFoot	*	0.15	0.16	0.18
BRInnerShin	**	0.04	0.07	0.11
BROuterShin	**	0.04	0.07	0.11
BRShin	*	0.05	0.07	0.12
BRInnerCalf	*	0.07	0.09	0.14
BRInnerThigh	*	0.06	0.08	0.11
BROuterThigh	***	0.07	0.08	0.1
BRThigh	***	0.07	0.08	0.12
BRInnerLeg	**	0.27	0.33	0.31
BRUpperOutterLeg	**	0.16	0.19	0.21

Table 8. HIGH EDEQ + SOUND CONDITIONS

Zone	Significance Level	Control	Low	High
FLInnerHand	**	0.04	0.04	0.06
FLPalm	***	0.01	0.04	0.07
FLRingPink	**	0.02	0.04	0.02
FLThumb	***	0.01	0.02	0.01
FLForeArm	***	0.01	0.06	0.06
FLInnerForeArm	***	0.01	0.06	0.06
FLElbow	*	0.07	0.08	0.1
FLInnerElbow	***	0.06	0.07	0.1
FLOuterElbow	*	0.05	0.08	0.06
FLShoulder	***	0.05	0.11	0.1
FLOuterArm	*	0.12	0.21	0.17
FLInnerArm	***	0.1	0.12	0.14
FLArm	**	0.13	0.23	0.2
FForehead	***	0.05	0.06	0.02
Nose	***	0.02	0	0
FMouthChin	***	0.01	0.01	0
FRNeck	***	0.01	0.01	0
FLInnerFoot	**	0.17	0.23	0.18
FLOuterFoot	**	0.17	0.21	0.18
FLFoot	*	0.17	0.23	0.19
FLInnerShin	*	0.14	0.17	0.14
FLOuterShin	*	0.13	0.17	0.13
FLShin	*	0.14	0.17	0.15
FLOuterThigh	**	0.13	0.19	0.13
FLLowerInnerLeg	**	0.18	0.21	0.18
FWaist	***	0.11	0.12	0.15
FLowerChest	***	0.04	0.06	0.06
FShoulder	**	0.08	0.14	0.11
FUpperTorso	*	0.18	0.21	0.23
FRUpperTorso	*	0.13	0.19	0.18
FLUpperTorso	*	0.12	0.2	0.18
FbellyButton	***	0.08	0.1	0.12
FROuterHand	***	0.01	0.05	0.05
FRInnerHand	***	0.01	0.06	0.05
FRPalm	***	0	0.04	0.05
FRRingPink	***	0.01	0.05	0.04
FRIndexMiddle	***	0.01	0.04	0.04
FRThumb	***	0	0.02	0
FRForeArm	***	0.02	0.07	0.06
FROuterForeArm	***	0.02	0.07	0.06
FRInnerElbow	***	0.04	0.07	0.07
FROuterElbow	*	0.04	0.08	0.06
FRUpperArm	*	0.12	0.21	0.15
FRShoulder	*	0.07	0.12	0.11
FROuterUpperArm	*	0.08	0.11	0.07
FROuterArm	*	0.12	0.24	0.18
FRInnerArm	***	0.08	0.13	0.11
FRInnerFoot	**	0.18	0.23	0.18
FROuterShin	**	0.13	0.18	0.15
FRInnerCalf	**	0.13	0.12	0.14
FRLowerInnerLeg	*	0.17	0.2	0.17
BHead	***	0.08	0.11	0.08
BNape	**	0	0.02	0.02
BLowerHead	**	0.06	0.08	0.06
BUpperHead	***	0.04	0.05	0
BSkull	***	0.08	0.1	0.06
BLowerChest	***	0.06	0.08	0.06
BUpperBack	**	0.14	0.19	0.21
BFullShoulders	***	0.15	0.24	0.21

Zone	Significance Level	Control	Low	High
BShoulders	*	0.08	0.18	0.11
BChest	**	0.14	0.18	0.14
BLowerTorso	**	0.19	0.26	0.25
BUpperSpine	***	0.21	0.18	0.19
BLPalm	**	0.01	0.04	0.02
BLThumb	*	0.01	0.02	0
BLForeArm	***	0.04	0.05	0.07
BLInnerForeArm	***	0.02	0.01	0.06
BLOuterForeArm	**	0.04	0.04	0.07
BLElbow	***	0.07	0.02	0.07
BLOuterElbow	***	0.05	0.02	0.05
BLUpperArm	***	0.12	0.17	0.14
BLInnerUpperArm	***	0.05	0.06	0.07
BLOuterUpperArm	**	0.07	0.06	0.08
BLOuterArm	***	0.12	0.18	0.18
BLInnerArm	***	0.06	0.06	0.12
BRHand	***	0.01	0.04	0.04
BROuterHand	***	0.01	0.04	0.04
BRInnerHand	***	0.01	0.02	0.04
BRPalm	***	0.01	0.04	0.02
BRRingPink	***	0.01	0.01	0.02
BRIndexMiddle	***	0.01	0.01	0.02
BRThumb	***	0.01	0.02	0
BRForeArm	***	0.05	0.04	0.07
BRInnerForeArm	***	0.02	0.01	0.06
BRElbow	***	0.06	0.02	0.07
BRInnerElbow	***	0.05	0.01	0.07
BROuterElbow	***	0.05	0.02	0.06
BRShoulder	***	0.08	0.18	0.08
BLOuterFoot	***	0.13	0.18	0.12
BLFoot	***	0.13	0.18	0.12
BLInnerCalf	*	0.07	0.12	0.13
BLInnerThigh	*	0.07	0.15	0.1
BLOuterThigh	**	0.08	0.15	0.1
BLLeg	***	0.27	0.42	0.32
BLOuterLeg	***	0.27	0.42	0.32
BLInnerLeg	***	0.25	0.42	0.3
BRInnerFoot	***	0.13	0.18	0.13
BROuterFoot	***	0.13	0.18	0.14
BRFoot	*	0.13	0.18	0.14
BRInnerShin	**	0.07	0.13	0.14
BROuterShin	**	0.06	0.14	0.13
BRShin	*	0.07	0.14	0.15
BRInnerCalf	*	0.1	0.15	0.19
BRInnerThigh	*	0.07	0.15	0.11
BROuterThigh	***	0.06	0.15	0.11
BRThigh	***	0.07	0.15	0.11
BRInnerLeg	**	0.29	0.44	0.36
BRUpperOuterLeg	**	0.13	0.21	0.2

Table 9. LOW IPAQ + SOUND CONDITIONS

Zone	Significance Level	Control	Low	High
FLIndexMiddle	*	0.06	0.06	0.06
FLThumb	***	0	0.01	0.01
FLInnerForeArm	***	0.01	0.05	0.02
FLOuterForeArm	***	0.01	0.05	0.02
FLElbow	***	0.05	0.05	0.06
FLInnerElbow	***	0.05	0.05	0.06

Zone	Significance Level	Control	Low	High
FForehead	***	0.07	0.12	0.05
FRTemple	***	0.05	0.08	0.05
FLTemple	***	0.05	0.1	0.05
FMiddleForehead	***	0.07	0.08	0.02
Nose	***	0.02	0	0
FEars	***	0.06	0.07	0.1
FRear	***	0.05	0.07	0.08
FLear	***	0.06	0.07	0.1
FRNeck	*	0.01	0	0
FMiddleFace	***	0.06	0.07	0.1
FLMiddleFace	***	0.1	0.13	0.11
FHead	***	0.13	0.15	0.11
FLOutterFoot	**	0.14	0.19	0.2
FLFoot	**	0.14	0.19	0.21
FLHip	***	0.1	0.11	0.11
FLowerTorso	*	0.26	0.27	0.21
FLLowerTorso	**	0.15	0.23	0.18
FRThumb	***	0	0.01	0.01
FRForeArm	***	0.01	0.06	0.04
FROuterForeArm	***	0.01	0.06	0.04
FRForeElbow	***	0.05	0.04	0.05
FROuterElbow	***	0.02	0.04	0.04
FROuterArm	**	0.12	0.14	0.13
FRInnerArm	**	0.05	0.07	0.08
FRInnerKnee	*	0.21	0.26	0.31
FROuterKnee	**	0.21	0.25	0.31
FRKnee	**	0.21	0.26	0.32
FROuterCalf	***	0.13	0.1	0.17
FRCalf	***	0.13	0.1	0.17
FRInnerThigh	*	0.08	0.14	0.17
FROuterThigh	*	0.14	0.15	0.14
FRUpperInnerLeg	**	0.25	0.29	0.33
FRLowerOuterLeg	*	0.14	0.13	0.2
BHead	***	0.07	0.08	0.08
BNape	***	0.01	0.01	0.02
BLNape	***	0.01	0	0.02
BUpperHead	***	0.05	0.06	0.04
BSkull	***	0.06	0.07	0.06
BLPalm	***	0	0.02	0
BLRingPink	***	0.02	0.04	0.02
BLIndexMiddle	***	0.02	0.04	0.02
BLThumb	*	0	0.01	0
BLForeArm	***	0.01	0.02	0.04
BLInnerForeArm	***	0.01	0.01	0.02
BLOuterForeArm	***	0.01	0.01	0.04
BLOuterElbow	***	0.02	0.01	0.02
BLShoulder	***	0.07	0.07	0.07
BLInnerUpperArm	***	0.04	0.04	0.04
BLOuterArm	***	0.12	0.1	0.11
BLInnerArm	***	0.05	0.04	0.06
BLArm	***	0.14	0.14	0.12
BRHand	***	0	0.02	0.01
BROuterHand	***	0	0.02	0.01
BRInnerHand	***	0	0.02	0.01
BRPalm	***	0	0.02	0
BRRingPink	***	0	0.01	0.01
BRIndexMiddle	***	0	0.01	0.01
BRThumb	***	0	0.01	0
BRForeArm	***	0.01	0.04	0.05
BROuterForeArm	***	0.01	0.02	0.05
BRElbow	***	0.04	0.01	0.04
BROuterElbow	***	0.02	0.01	0.02

Zone	Significance Level	Control	Low	High
BRInnerUpperArm	***	0.02	0.02	0.04
BROuterUpperArm	**	0.04	0.05	0.05
BLInnerShin	***	0.02	0.06	0.08
BLShin	*	0.04	0.08	0.12
BLOuterKnee	*	0.13	0.18	0.19
BLKnee	*	0.13	0.18	0.19
BLInnerCalf	**	0.1	0.13	0.14
BROuterFoot	**	0.14	0.18	0.18
BRFoot	**	0.14	0.18	0.18
BRInnerShin	***	0.04	0.07	0.1
BROuterShin	*	0.02	0.08	0.08
BRShin	***	0.04	0.08	0.11
BRInnerKnee	**	0.14	0.21	0.25
BROuterKnee	**	0.14	0.19	0.23
BRKnee	**	0.14	0.21	0.27
BRInnerCalf	***	0.12	0.14	0.19
BRCalf	***	0.12	0.15	0.19
BRLeg	*	0.31	0.44	0.38
BROuterLeg	*	0.29	0.42	0.35
BRInnerLeg	***	0.31	0.43	0.38
BRUpperInnerLeg	***	0.15	0.25	0.27
BRLowerInnerLeg	*	0.12	0.19	0.2

Table 10. HIGH IPAQ + SOUND CONDITIONS

Zone	Significance	Control	Low	High
FLIndexMiddle	*	0.03	0.04	0.01
FLThumb	***	0.01	0.03	0.01
FLInnerForeArm	***	0.01	0.04	0.06
FLOuterForeArm	***	0.04	0.03	0.07
FLElbow	***	0.04	0.06	0.1
FLInnerElbow	***	0.03	0.04	0.1
FForehead	***	0.03	0.05	0.03
FRTemple	***	0.03	0.05	0.03
FLTemple	***	0.03	0.03	0.03
FMiddleForehead	***	0.03	0.05	0.03
Nose	***	0	0	0
FEars	***	0.08	0.1	0.08
FEar	***	0.08	0.1	0.08
FEar	***	0.07	0.1	0.08
FRNeck	*	0.01	0.01	0.02
FMiddleFace	***	0.08	0.1	0.08
FLMiddleFace	***	0.12	0.11	0.14
FHead	***	0.12	0.14	0.14
FLOuterFoot	**	0.17	0.19	0.18
FLFoot	**	0.17	0.2	0.18
FLHip	***	0.11	0.11	0.14
FLowerTorso	*	0.23	0.27	0.28
FLLowerTorso	**	0.17	0.18	0.22
FRThumb	***	0.01	0.03	0.02
FRForeArm	***	0.04	0.04	0.07
FROuterForeArm	***	0.04	0.04	0.07
FRElbow	***	0.03	0.05	0.08
FROuterElbow	***	0.03	0.05	0.07
FROuterArm	**	0.13	0.17	0.19
FRInnerArm	**	0.06	0.1	0.13
FRInnerKnee	*	0.15	0.17	0.18
FROuterKnee	**	0.18	0.17	0.15
FRKnee	**	0.2	0.19	0.19
FROuterCalf	***	0.1	0.11	0.1
FRCalf	***	0.1	0.14	0.12
FRInnerThigh	*	0.13	0.16	0.18
FROuterThigh	*	0.12	0.16	0.17
FRUpperInnerLeg	**	0.2	0.24	0.24
FRLowerOuterLeg	**	0.14	0.21	0.17
BHead	***	0.06	0.08	0.05

Zone	Significance	Control	Low	High
BNape	***	0.01	0.01	0.02
BLNape	***	0	0	0.01
BUpperHead	***	0.02	0.05	0.01
BSkull	***	0.05	0.08	0.04
BLPalm	***	0.01	0.01	0.05
BLRingPink	***	0.01	0.01	0.03
BLIndexMiddle	***	0.01	0.01	0.03
BLThumb	*	0.01	0.01	0.02
BLForeArm	***	0.04	0.03	0.06
BLInnerForeArm	***	0.02	0	0.06
BLOuterForeArm	***	0.04	0.03	0.06
BLOuterElbow	***	0.03	0.02	0.06
BLShoulder	***	0.05	0.13	0.17
BLInnerUpperArm	***	0.03	0.05	0.1
BLOuterArm	***	0.11	0.14	0.22
BLInnerArm	***	0.03	0.05	0.12
BLArm	***	0.11	0.17	0.24
BRHand	***	0.01	0.01	0.05
BROuterHand	***	0.01	0.01	0.05
BRInnerHand	***	0.01	0	0.05
BRPalm	***	0.01	0.01	0.05
BRRingPink	***	0.01	0	0.02
BRIndexMiddle	***	0.01	0	0.02
BRThumb	***	0.01	0.01	0.01
BRForeArm	***	0.05	0.02	0.09
BROuterForeArm	***	0.04	0.02	0.07
BRForeElbow	***	0.03	0.01	0.07
BROuterElbow	***	0.03	0.01	0.07
BRInnerUpperArm	***	0.02	0.07	0.09
BROuterUpperArm	**	0.03	0.08	0.1
BLInnerShin	***	0.07	0.13	0.15
BLShin	*	0.08	0.14	0.16
BLOuterKnee	*	0.11	0.1	0.12
BLKnee	*	0.11	0.1	0.13
BLInnerCalf	**	0.07	0.12	0.13
BROuterFoot	**	0.14	0.16	0.15
BRFoot	**	0.14	0.16	0.15
BRInnerShin	***	0.07	0.12	0.15
BROuterShin	*	0.07	0.12	0.15
BRShin	***	0.08	0.12	0.16
BRInnerKnee	**	0.08	0.1	0.12
BROuterKnee	**	0.09	0.1	0.12
BRKnee	**	0.1	0.11	0.14
BRInnerCalf	***	0.05	0.1	0.14
BRCalf	***	0.08	0.11	0.16
BRLeg	*	0.28	0.34	0.31
BROuterLeg	*	0.27	0.33	0.29
BRInnerLeg	*	0.24	0.34	0.29
BRUpperInnerLeg	***	0.13	0.17	0.16
BRLowerInnerLeg	*	0.07	0.14	0.17

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