

SUPPLEMENTARY MATERIALS

Table 6 a. Association between HAV exposure to rock drills and impact wrenches as separate variables and VPT on dominant hand:

Elevated VPT (dB) per tenfold increase in $h \cdot ms^{-2}$

Frequency	Rock drill exposure Dominant 2 nd finger (n=104)	Impact wrench exposure Dominant 2 nd finger (n=104)	Rock drill exposure Dominant 5 th finger (n=102)	Impact wrench exposure Dominant 5 th finger (n=102)
Hz	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)
8	1.43 (0.64 - 2.23)*	0.84 (-0.06 - 1.73)	1.63 (0.84 - 2.43)*	0.76 (-0.12 - 1.65)
16	1.38 (0.69 - 2.07)*	0.97 (0.19 - 1.75)*	1.56 (0.79 - 2.33)*	0.67 (-0.19 - 1.53)
32	1.28 (0.60 - 1.96)*	0.82 (0.06 - 1.58)*	1.25 (0.44 - 2.07)*	0.74 (-0.17 - 1.66)
64	1.55 (0.58 - 2.51)*	0.93 (-0.15 - 2.02)	1.68 (0.68 - 2.68)*	1.30 (0.19 - 2.42)*
125	1.86 (0.89 - 2.83)*	1.19 (0.09 - 2.28)*	2.19 (0.84 - 3.55)*	1.11 (-0.41 - 3.55)
250	2.40 (1.22 - 3.58)*	1.58 (0.25 - 2.90)*	2.48 (0.77 - 4.20)*	1.05 (-0.87 - 2.97)
500	2.38 (1.07 - 3.70)*	0.72 (-0.76 - 2.19)	2.56 (0.92 - 4.20)*	2.04 (0.21 - 3.86)*

* $P \leq 0.05$

Models included age (using categories of age <60 and age 60-69 years), rockdrill exposure and impact wrench exposure

Table 6 b. Association between HAV exposure to rock drills and impact wrenches as separate variables and VPT on non-dominant hand:
Elevated VPT (dB) per tenfold increase in $h \cdot ms^{-2}$

Frequency	Rock drill exposure Non-dominant 2 nd finger (n=102)	Impact wrench exposure Non-dominant 2 nd finger (n=102)	Rock drill exposure Non-dominant 5 th finger (n=103)	Impact wrench exposure Non-dominant 5 th finger (n=103)
Hz	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)
8	0.96 (0.19 - 1.72)*	0.16 (-0.72 - 1.03)	1.33 (0.56 - 2.10)*	0.36 (-0.51 - 1.23)
16	1.06 (0.23 - 1.89)*	0.38 (-0.57 - 1.32)	1.13 (0.32 - 1.94)*	0.50 (-0.42 - 1.42)
32	0.89 (0.08 - 1.69)*	0.58 (-0.33 - 1.49)	0.79 (-0.08 - 1.66)	0.18 (-0.80 - 1.16)
64	1.43 (0.43 - 2.43)*	0.75 (-0.39 - 1.89)	1.14 (0.05 - 2.23)*	0.32 (-0.92 - 1.55)
125	1.77 (0.58 - 2.96)*	0.99 (-0.37 - 2.34)	1.63 (0.23 - 3.04)*	0.35 (-1.24 - 1.94)
250	1.98 (0.55 - 3.41)*	1.21 (-0.42 - 2.83)	2.37 (0.79 - 3.96)*	0.81 (-0.98 - 2.60)
500	2.15 (0.52 - 3.78)*	1.33 (-0.52 - 3.19)	1.95 (0.34 - 3.56)*	0.98 (-0.83 - 2.80)

* $P \leq 0.05$

Models included age (using categories of age <60 and age 60-69 years), rock drill exposure and impact wrench exposure

Table 7 a. Association between HAV exposure to rock drills and VPT: Elevated VPT (dB) per tenfold increase in days exposed to 5.4 ms⁻²(A8) for all tested fingers

Frequency	Dominant 2 nd finger (n=104)	Dominant 5 th finger (n=102)	Non-dominant 2 nd d finger (n=102)	Non-dominant 5 th finger (n=103)
Hz	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)
8	2.08 (0.96 - 3.20)*	2.42 (1.31 - 3.53)*	1.37 (0.30 - 2.45)*	1.84 (0.75 - 2.93)*
16	1.96 (0.99 - 2.94)*	2.28 (1.20 - 3.35)*	1.48 (0.30 - 2.65)*	1.59 (0.45 - 2.73)*
32	1.86 (0.91 - 2.81)*	1.85 (0.70 - 3.00) *	1.22 (0.08 - 2.35)*	1.11 (-0.11 - 2.33)
64	2.23 (0.88 - 3.58)*	2.53 (1.13 - 3.93)*	2.12 (0.71 - 3.52)*	1.77 (0.24 - 3.30)*
125	2.65 (1.28 - 2.83)*	3.21 (1.31 - 5.12)*	2.56 (0.89 - 4.24)*	2.51 (0.54 - 4.49)*
250	3.40 (1.74 - 5.06)*	3.70 (1.29 - 6.11)*	2.88 (0.87 - 4.90)*	3.50 (1.27 - 5.72)*
500	3.36 (1.50 - 5.21)*	3.72 (1.42 - 6.02)*	3.10 (0.81 - 5.40)*	2.83 (0.56 - 5.09)*

* P ≤ 0.05

Models included age (using categories of age <60 and age 60-69 years), rock drill exposure and impact wrench exposure

Table 7 b. Association between HAV exposure to impact wrenches and VPT: Elevated VPT (dB) per tenfold increase in days exposed to $1.2 \text{ ms}^{-2}(\text{A8})$ for all tested

Frequency	Dominant 2 nd finger (n=104)	Dominant 5 th finger (n=102)	Non-dominant 2 nd finger (n=102)	Non-dominant 5 th finger (n=103)
Hz	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)	Unstandardized Coefficients B (95 % CI)
8	0.91 (-0.05 - 1.87)	0.85 (-0.09 - 1.79)	0.18 (-0.75 - 1.11)	0.36 (-0.58 - 1.30)
16	1.03 (0.20 - 1.87)*	0.77 (-0.18 - 1.65)	0.40 (-0.62 - 1.41)	0.53 (-0.46 - 1.51)
32	0.88 (0.07 - 1.69)*	0.81 (-0.16 - 1.79)	0.61 (-0.38 - 1.59)	0.19 (-0.86 - 1.24)
64	1.01 (-0.15 - 2.17)	1.45 (0.26 - 2.64)*	0.85 (-0.37 - 2.07)	0.41 (-0.91 - 1.72)
125	1.27 (0.10 - 2.44)*	1.21 (-0.40 - 2.83)	1.08 (-0.37 - 2.52)	0.47 (-1.23 - 2.16)
250	1.70 (0.28 - 3.12)*	1.20 (-0.85 - 3.25)	1.33 (-0.41 - 3.08)	0.93 (-0.98 - 2.85)
500	0.74 (-0.85 - 2.33)	2.24 (0.29 - 4.20)*	1.46 (-0.53 - 3.45)	1.08 (-0.87 - 3.03)

* $P \leq 0.05$

Models included age (using categories of age <60 and age 60-69 years), rock drill exposure and impact wrench exposure