Guidance

Vibration

1. What is hand-arm vibrati

Workers using hand-held p vibration (HAV).

Hand—arm vibration is vibra power tools or holding mate drilling, hammering etc.

It is commonly experienced tools, chainsaws, grinders, and/or duration of use redu

2. Health effects

Exposure to HAV can result can cause damage to nervican cause a range of condition (HAVS) and specific disord vibration white finger'. If yow orking or after you stop, it

3. Factors influencing the e

The longer a worker is explikelihood of developing HA the tool or the way it is use

- 3.1 Tool characteristics
 - 3.1.1 Higher rate
 - 3.1.2 Poor tool ma
 - 3.1.3 Insufficient in
 - 3.1.4 Larger or he hand in cont
- 3.2 Individual's method
 - 3.2.1 Gripping the
 - 3.2.2 Awkward po
 - 3.2.3 Low operato
 - 3.2.4 Individual life
 - 3.2.5 An individua hands or wri
- 3.3 The way the work is

ed to harmful levels of hand-arm

and or arm whilst using hand-held machines, whether cutting,

y use tools such as breaking ers. Reducing vibration exposure keletal disorders

in the hand and forearm which bones of the hand and arm. It as hand–arm vibration syndrome I syndrome, 'tennis elbow' and in your fingers or hands when of HAVS.

ΑV

the risk of developing HAVS. The differences in characteristics of

rnal vibration

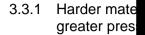
re is an increased amount of your

needed

ad

hg)

isease or prior injury to fingers,



- 3.3.2 Long periods
- 3.3.3 Long periods
- 3.3.4 A lower tem
- 3.3.5 Insufficient r

4. Reducing harmful exposi

Eliminating or minimising e involves isolating or cushio activities that cause repeat (Consultation with Employe staff before "the introductio affect the health and safety tools or equipment.

- 4.1 In order to reduce the will normally be required.
 - 4.1.1 Implementin eliminate the consider usi
 - 4.1.2 Selecting too have information found in the
 - 4.1.2.1 i.e. V
 - 4.1.2.2 Vibra
 - 4.1.3 Modifying ex vibration from
 - 4.1.4 Modifying th so changing drilling to do reduce expo
 - 4.1.5 Wear gloves made worse However glo vibration. Th and cuts and as workers a received.
 - 4.1.6 Maintain eques condition to

5. How much is too much?

These control measures by staff have training on what

ed etc meaning more contact,

n work shift

ver months or years

nent

h can cause HAVS usually
It step is to identify the work
It of Health and Safety
quires that employers consult their
workplace which may substantially
ncluding the selection of new

mbination of control measures ould include:

thods or processes. This should ols. If you have to use a breaker, istead.

ls. All new hand held tools should ation emission levels'. This will be

11.7 m/s²

ncrete - 14.1 m/s2

mise the vibration or prevent the of the tool.

Realistically you have a job to do e simple. If you have a lot of ving several workers do the job to

Id the effects of vibration are very useful to retain heat. upon to provide protection from n from cold temperatures, water, nick gloves is not recommended a can increase vibration being

sure bearings etc are all in good

ugh. You need to ensure that your arm them. They should also be



given advice on good work personal/lifestyle factors (e circulation and vibration wh nce, and importantly, the effects of edications) which may impact on

6. Making the right choice

Similar tools of the same to considerable difference in t choice, you will need to obt the tool as possible. Inform provided by the tool manuf

Consider the suitability of the tool may take longer to do overpowered or oversized

When considering the vibra information which relates d to the levels likely to be fou

To help you work out the til Simply-Docs have produce long they can work before would be exceeded.

In order to use the guide, y the exposure time. Exposu easily be measured using a

Simply choose the relevant select the time the tool is u give you a number between groups -

Above exposure limit Likely to exceed exposu

limit **Above action limit**

Likely to exceed action I

Below exposure limit

There are two exposure lev

- 1) 100 points per day is the Exposure Action Value -
- 2) The second is 400 point to during a day. This is t

Transfer that number to the hazards and control measu

hufacturers may have a ey emit. To make an informed about the vibration emissions of itted by a specific tool can be

vill be doing. An underpowered ne of exposure, and an tion than necessary.

ring a specific task, try to find se. This will provide a better guide rmed in your workplace.

ng a tool or doing a particular job, workers with an indication of how level and exposure limit levels

vibration magnitude (in m/s²) and ime spent using the tool. This can al working conditions.

Where the two lines meet will er will correspond to one of five

scale (vibration value) then

equired to take action – the

person is allowed to be exposed – ELV.

Form and use the example sk assessment. You will then need to keep a record of w Vibration, and the amount

800

265

S

employees on Hand Arm vibration causing tools.

exposure limit	>400
o exceed exposure limit	251-390
action limit	99-250
o exceed action limit	68-98
exposure limit	<67

	30	150	450	900	
	25	105	315	625	
	20	67	200	400	
	19	60	180	360	
/ S ₂	18	54	160	325	
Ĕ	17	48	145	290	
Ine	16	43	130	255	
<u> </u>	15	38	115	225	
Vibration value m/s ²	14	33	98	195	
rat	13	28	85	170	
Ζį	12	24	72	145	
	11	20	61	120	
	10	17	50	100	
	9	14	41	81	
	8	11	32	64	
	7	8	25	49	
	6	6	18	36	
	5.5	5	15	30	
	5	4	13	25	
	4.5	3	10	20	
	4	3	8	16	
	3.5	2	6	12	
	3	2	5	9	
	2.5	1	3	6	
	2	1	2	4	
	1.5	0	1	2	

1350							
1200		1					
1000	1350						
865	1150	1450					
725	970	1200	1450				
600	800	1000	1200				
485	650	810	970				
385	510	640	770				
295	390	490	590				
215	290	360	430				
180	240	305	365				
150	200	250	300				
120	160	205	245				
96	130	160	190				
74	98	125	145				
54	72	90	110				
38	50	63	75				
24	32	40	48				
14	18	23	27				
6	8	10	12				
3	4	5	6				
│ I 'trigger time'							

0

5

min

15

min

30

min

Daily exposu

1