

(1) Occupational / Very high maintenance worker exposure



Scenario 1 – Most ways of accruing this exposure are unlikely but nevertheless still possible – for example, very badly controlled jobs to remove insulation products

10 f/ml.yr	1 f/ml	Constant work time exposure for 10 years	Prolonged exposure at high levels
	2 f/ml	Constant work time exposure for 5 years	
	10 f/ml	Constant work time exposure for 1 year	
		1 day per week work time exposure for 5 years	Repeated regular or occasional longer exposure to very high levels
		About 2 months work time exposure each year for 5 years	
	50 f/ml	About 2 months work time exposure	Small number of occasional extremely high exposure events
		Work time exposure for 2 weeks in each year for about 5 years	

(2) High maintenance worker exposure

Scenario 2 – More plausible scenarios for poorly controlled removal jobs or maintenance workers who regularly come into contact with products such as AIB and don't take precautions

1 f/ml.yr	0.1	Constant work time exposure at the current control limit for 10 years	Prolonged exposures at moderate levels (at or above the control limit)
	0.2 f/ml	Constant work time exposure for 5 years	
	1.0 f/ml	Constant work time exposure for 1 year	
		1 day per week work time exposure for 5 years	Repeated regular or occasional longer exposure to high levels
		About 2 months work time exposure each year for 5 years	
	10 f/ml	Constant work time exposure for about 1 month	
Work time exposure for about 1 week in each year for about 5 years		Occasional exposure to high levels or one-off extremely high level exposure	
50 f/ml	Constant work time exposure for about 1 week		

(2) High maintenance worker exposure – regular contact with amosite containing products: ~ 1 f/ml.yr amosite



- H&D: LR = 90 (range 15-300) per 100,000
- Linear model: LR = 70 (95% CI: 44-105) per 100,000

Possible statements?

“The lifetime risk lies between 15 and 300 per 100,000 with a best estimate in the region of 70-90 per 100,000”

“The lifetime risk is most likely to be in excess of background - most probably less than 100 per 100,000 – however, it could possibly be as high as a few 100 per 100,000”

What if this 1 f/ml.yr exposure was to chrysotile?

- H&D: LR = 5 (range 1-18) per 100,000
compared with 90 (15-300) for amosite
- Linear model: LR = 1 (95% CI: 0.7-1.3) per 100,000
compared with 70 (44-105) for amosite

Possible statements?

“The risk likely to be at least an order of magnitude less than if the fibre was pure amosite – and substantially less than a background level (of about 25 per 100,000)”

(3) More typical maintenance worker scenario



Scenario 3 – Plausible scenarios for removal or maintenance workers			
0.1 f/ml.yr	0.02 f/ml	Constant work time exposure for 5 years	Constant exposure at 1/5 th the current control limit
	0.1 f/ml	Constant work time exposure for 1 year	Constant or repeated regular exposure at control limit
		1 day per week work time exposure for 5 years	
		About 2 months work time exposure each year for 5 years	
	1 f/ml	Constant work time exposure for about 1 month	Occasional short term exposure at high levels
		Work time exposure for about 1 week in each year for about 5 years	
	10 f/ml	Constant work time exposure for 2 to 3 days	Very brief exposure to very high levels
	50 f/ml	1 single exposure episode of about 4 hours	

(3) Maintenance workers with occasional relatively high exposure to amosite: ~ 0.1 f.ml.yr



- H&D: LR = 16 (range 2-77) per 100,000
- Linear model: LR = 7 (95% CI: 4-11) per 100,000

Possible statements?

“The lifetime risk lies between 2 and 77 per 100,000 with a best estimate in the region of 7-16 per 100,000”

“The lifetime risk could be between 2 and 77 per 100,000 but more likely towards the lower part of this range, probably below a background level of about 25 per 100,000”

“The lifetime risk is most likely to be a bit less than background and of the order of about 10 per 100,000 - however, it could be higher, possibly several 10s per 100 per 100,000”