

Health monitoring

Guide for carbon disulfide





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Introduction

This guide is intended to be read by a registered medical practitioner with experience in health monitoring who is engaged by person conducting a business or undertaking (PCBU) to carry out or supervise health monitoring. It provides practical guidance to registered medical practitioners about requirements under the work health and safety (WHS) laws for health monitoring.

This guide applies to all workplaces covered by the WHS Regulations where health monitoring is required.

How to use this guide

This guide includes references to the legal requirements under the WHS Act and WHS Regulations. These are included for convenience only and should not be relied on in place of the full text of the WHS Act or WHS Regulations.

The words 'must', 'requires' or 'mandatory' indicate a legal requirement exists that must be complied with. The word 'should' is used in this guide to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This guide provides information for those registered medical practitioners engaged by a PCBU to carry out or supervise health monitoring for workers. This guidance should be read in conjunction with the following:

- Health monitoring guide for registered medical practitioners
- Health monitoring guides for hazardous chemicals
- Health monitoring guide for workers
- Health monitoring guide for persons conducting business or undertakings (PCBUs).

Health monitoring under the WHS Regulations

In certain circumstances, the model WHS Regulations place duties on a PCBU to provide health monitoring to workers. These requirements arise if the worker is carrying out work with hazardous chemicals including lead and asbestos. In addition, the work being carried out must be the kind of work specified in the WHS Regulations. A PCBU has the duty to determine if health monitoring is required.

The WHS Regulations prescribe that health monitoring is carried out by or supervised by a registered medical practitioner with experience in health monitoring.

Carbon disulfide

Pure carbon disulfide (CAS 75-15-0) is a clear, colourless liquid that has a sweet, pleasant odour. It evaporates rapidly at room temperature, explodes and ignites easily.

Impure carbon disulfide, generally used in industrial processes, is a yellowish liquid with an unpleasant odour like rotten radishes. It is a decomposition product of xanthates that are commonly used in mining.

Synonyms: carbon bisulphide, carbon bisulfide, carbon disulphide, dithiocarbonic anhydride

Work activities that may represent a high risk exposure

Under the Work Health and Safety (WHS) Regulations, carbon disulfide is listed as a restricted hazardous chemical and must not be used for spray painting without authorisation from a relevant WHS regulator.

Carbon disulfide is used in the manufacture of regenerated cellulose and cellophane. In Australia it is also used as a pig poison.

In mining carbon disulfide may be present as a decomposition product of xanthates.

Workers in manufacturing plants using carbon disulfide have a high risk of exposure and other persons in the vicinity of this work may be exposed.

Sources of non-occupational exposure

Low levels of carbon disulfide are released from the earth's surface over salt marshes and in volcanic eruptions. Trace elements can be found in oil and coal tar.

1. Health monitoring for carbon disulfide under the WHS Regulations

Collection of demographic, medical and occupational history

Physical examination with emphasis on the respiratory system and skin

Urinary 2-thiothiazolidine-4-carboxylic acid level

Health monitoring before starting work in a carbon disulfide process

Health monitoring for carbon disulfide may be required before the worker starts work so that changes to the worker's health can be detected.

Initial discussions about a health monitoring program should include:

- possible health effects from exposure to carbon disulfide
- how to recognise and report symptoms, and
- what is involved in the health monitoring program, for example the frequency of testing and the tests that may be needed.

Carbon disulfide is a respiratory irritant and it is important to investigate respiratory symptoms. However, spirometry may not be required at this stage.

Baseline kidney and liver function tests are recommended if frequent or potentially high exposure (half the eight hour TWA or above) are expected during the course of work, based on available air monitoring results.

During exposure to a carbon disulfide process

2. Monitoring exposure to carbon disulfide

Where workers are exposed, suspected of being exposed or are concerned about exposure to carbon disulfide, the person conducting the business or undertaking (PCBU) has a duty to arrange a health monitoring appointment with a registered medical practitioner. For example, an appointment should be arranged following spills or loss of containment of carbon disulfide resulting in excessive exposure to workers or when workers develop symptoms of carbon disulfide exposure.

Carbon disulfide is rapidly taken up into the blood following all routes of exposure (inhalation, dermal, oral). Pulmonary absorption of inhaled carbon disulfide is approximately 80 per cent at the start of exposure and then declines steadily, reaching a plateau of approximately 45 per cent. Extensive dermal absorption is possible following exposure to vapour.

One of the known pathways of carbon disulfide metabolism leads to 2-thiothiazolidine and 2-thiothiazolidine-4-carboxylic acid (TTCA). Urinary TTCA levels are used for biological monitoring as its levels correlate well with exposure.

The following test may be used to test the worker's exposure levels:

urinary 2-thiothiazolidine-4-carboxylic acid (TTCA) level.

A biological guidance value of 0.001 mmol TTCA/mol creatinine is available and notes that results above this level do not necessarily mean adverse health effects will occur¹.

The biological exposure guidance values of 0.5 mg TTCA/g creatinine (0.4 mmol/mol creatinine)², 2 mg TTCA/g creatinine (1.4 mmol/mol creatinine)³, and 1.5 mg TTCA/g creatinine (1 mmol/mol creatinine)⁴ available are assigned to be protective for adverse health effects and may be more informative to guide remedial actions.

Therefore, where urinalysis is carried out, the following values may be considered when assessing exposure to carbon disulfide:

Biological exposure guide for carbon disulfide

Urinary 2-thiothiazolidine-4-carboxylic acid (TTCA):

0.5–2 mg/g creatinine (0.4–1.4 mmol/mol creatinine)

The urine should be collected at the end of shift, preferably at the end of the working week.

TTCA is not a specific indicator of carbon disulfide exposure. TTCA may also be found in the urine of people taking disulfiram (Antabuse) and people exposed to dithiocarbamate pesticides and rubber accelerators. Dietary cabbage (or other cruciferous vegetables) may also give rise to significant quantities of TTCA in urine. Any exposure to these substances should be noted.

Changes in a worker's health status should be compared with the worker's baseline health monitoring test results. Kidney and liver function blood tests are recommended if frequent

¹ See <u>Chemical analysis branch handbook, 9th Edition, Workplace and biological monitoring exposure analysis, WorkCover NSW (PDF 3.39MB) for more details</u>

² The American Conference of Governmental Industrial Hygienists (ACGIH)

³ The German Research Foundation (DFG)

⁴ EU Scientific Committee on Occupational Exposure Limits (SCOEL)

or potentially high exposure (half the eight hour time weighted average or above) are expected during the course of work, based on available air monitoring results.

Workplace exposure standard

The workplace exposure standard for carbon disulfide is

eight hour time weighted average (TWA) of 10 ppm (31 mg/m³).

A physical examination and urinary testing may be indicated if the results of air monitoring indicate frequent or potentially high exposure (half of the TWA or above).

NOTE: Carbon disulfide is readily absorbed through the skin and air monitoring results may not be a true indication of exposure.

Removal from work

Where a medical examination indicates the worker is displaying symptoms of exposure to carbon disulfide or where results of biological monitoring indicate exposure that may cause adverse health effects, the registered medical practitioner should consider recommending the worker be removed from carbon disulfide-related work.

When removal from carbon disulfide-related work is indicated the registered medical practitioner must provide the PCBU with the following recommendations:

- the worker should be removed from carbon disulfide work, and
- the PCBU should review control measures and carry out recommended remedial action.

The worker must be informed of the results of health monitoring.

Return to work

Should a worker be removed from carbon disulfide-related work, they must not return until the registered medical practitioner has:

- · assessed them as medically fit, and
- made a recommendation to the PCBU that the worker can return to remediated carbon disulfide-related work.

This assessment should take into consideration the clinical condition of the worker, the worker's urinary TTCA levels and remediation of the circumstances that led to the symptoms if possible.

At termination of work in a carbon disulfide process

3. Final medical examination

A final medical examination should be carried out, with emphasis on the respiratory system and skin.

Workers with health conditions or continuing symptoms due to carbon disulfide exposure should be advised to seek continuing medical examinations as organised by the registered medical practitioner supervising the health monitoring program.

A health monitoring report from the registered medical practitioner should be provided to the PCBU as soon as practicable after the completion of the monitoring program, and at regular intervals for longer term or ongoing health monitoring processes. The report must include:

- the name and date of birth of the worker
- the name and registration number of the registered medical practitioner
- the name and address of the PCBU who commissioned the health monitoring

- the date of the health monitoring
- any test results that indicate whether or not the worker has been exposed to a hazardous chemical
- any advice that test results indicate that the worker may have contracted an injury, illness or disease as a result of carrying out the work that triggered the requirement for health monitoring
- any recommendation that the PCBU take remedial measures, including whether the worker can continue to carry out the type of work that triggered the requirement for health monitoring, and
- whether medical counselling is required for the worker in relation to the work that triggered the requirement for health monitoring.

Potential health effects following exposure to carbon disulfide

4. Route of occupational exposure

Inhalation is the primary route of exposure to carbon disulfide as the vapours are readily absorbed by the lungs.

The most likely route of exposure to carbon disulfide when it is used as a pig poison is via skin contact.

5. Target organ/effect

The target organs and potential effects of carbon disulfide exposure include:

Table 1 Target organs and potential effects of carbon disulfide exposure

Target organ	Effect			
Central nervous system	 Headache Dizziness Confusion Psychosis Coma Death 			
Liver	Liver damage			
Kidneys	Kidney damage			
Gastrointestinal system	NauseaVomitingAbdominal pain			
Skin	 Irritation Pain Redness Blisters Burns 			
Respiratory tract	Irritation			
Eyes	IrritationConjunctivitisCorneal burns			

Target organ	Effect		
	 Impaired vision (perception of coloured rings around lights and reduced colour discrimination) 		
Reproductive system	 Alterations of the menstrual cycle and libido Sperm abnormalities Spontaneous abortion 		

6. Acute effects

Acute exposure to carbon disulfide is irritating to the eyes, mucous membranes and respiratory system.

Airborne carbon disulfide or exposure through skin contact may cause conjunctivitis and corneal burns. Skin contact can also cause blisters and chemical burns.

Acute exposure to high concentrations of carbon disulfide may cause:

- headache
- blurred vision
- dizziness
- confusion
- delusions
- manic delirium
- hallucinations
- suicidal tendencies
- psychosis
- convulsions
- coma, or
- death.

Ingestion of very small amounts of carbon disulfide may result in death.

Studies indicate that carbon disulfide crosses the placenta and is stored in the brain, blood, liver and eyes of the foetus.

7. Chronic effects

Chronic exposure may cause:

- permanent damage to the central and peripheral nervous system (decreased nervous conduction velocities, peripheral neuropathy and polyneuropathy)
- behavioural and neuropsychological changes
- Parkinsonism
- alterations in serum lipids
- atherosclerosis leading to angina and increased mortality from coronary heart disease
- liver damage
- kidney damage
- visual disturbances
- hearing loss, or
- sexual dysfunction.

8. Carcinogenicity

Carbon disulfide has not been classified as carcinogenic according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

9. GHS classification

The following GHS health hazard classification for carbon disulfide has been taken from Safe Work Australia's Hazardous Chemicals Information System.

Hazard category

Reproductive toxicity – category 2 (suspected of damaging fertility, suspected of damaging the unborn child)

Specific target organ toxicity (repeated exposure) – category 1 (causes damage to organs through prolonged or repeated exposure)

Eye irritation - category 2

Skin irritation – category 2

10. Source documents

Agency for Toxic Substances and Disease Registry; Toxic Substances Portal – Carbon Disulfide; Public Health Statement for Carbon Disulfide.

Agency for Toxic Substances and Disease Registry; Toxic Substances Portal – Carbon Disulfide; Toxicological Profile for <u>Carbon Disulfide</u>International Programme on Chemical Safety; InChem; <u>Carbon disulfide</u>.

American Conference of Governmental Industrial Hygienists (ACGIH) (2017) Biological Exposure Indices; Carbon disulfide.

<u>Chemical analysis branch handbook, 9th Edition, Workplace and biological monitoring exposure analysis,</u> WorkCover NSW (PDF 3.39MB).

DFG (2017) List of MAK and BAT Values.

EU Scientific Committee on Occupational Exposure Limits (SCOEL). Recommendation from the scientific committee on occupational exposure limits for carbon disulphide. SCOEL/SUM/82.

Lauwerys, R.R. and Hoet, P. (2001) *Industrial Chemical Exposure Guidelines for Biological Monitoring*, 3rd Ed, Lewis Publishers, Boca Raton.

Queensland Government; Department of Natural Resources and Mines; <u>Xanthates</u> in Mining.

Safe Work Australia (2013); <u>Workplace Exposure Standards for Airborne Contaminants</u> (PDF 873KB).

Safe Work Australia; *Hazardous Chemicals Information System.*

US Environmental Protection Agency, Carbon Disulfide (PDF 58KB).

US National Library of medicine; National Centre for Biotechnology Information; Carbon disulfide.



Health monitoring report

Carbon disulfide

(information provided by the PCBU)

☐ New to carbon disulfide work

This form contains confidential information and must not be disclosed to another person except in accordance with the Work Health and Safety Regulations or with consent of the worker

Health monitoring report - Carbon disulfide

This health monitoring report is a confidential health record and must not be disclosed to another person except in accordance with the Work Health and Safety Regulations or with the consent of the worker.

There are two sections. Complete both sections and all questions as applicable.

Section 1 A copy of this section should be forwarded to the person conducting the business or undertaking (PCBU) who has engaged your services.

Section 2 may contain confidential health information. Information that is required to be given to the PCBU should be summarised in Section 1.

Section 1 – A copy of this section to be provided to the PCBU

Person conducting a business or undertaking Company/organisation name: Click here to enter text. Site address: Click here to enter text. Suburb: Click here to enter text. Postcode: Click here to enter text. Site Tel: Click here to enter text. Site Fax: Click here to enter text. Contact Name: Click here to enter text. Other businesses or undertakings engaging the worker □ N/A (include a separate section for each PCBU) Company/organisation name: Click here to enter text. Site address: Click here to enter text. Suburb: Click here to enter text. Postcode: Click here to enter text. Site Tel: Click here to enter text. Site Fax: Click here to enter text. Contact Name: Click here to enter text. Worker details (tick all relevant boxes) Surname: Click here to enter text. Given names: Click here to enter text. Date of birth: Click here to enter a date. **Sex:** □ Male □ Female Address: Click here to enter text. Suburb: Click here to enter text. Postcode: Click here to enter text. Current job: Click here to enter text. **Tel (H):** Click here to enter text. Mob: Click here to enter text. Date started employment: Click here to enter a date. **Employment in carbon disulfide risk work** (tick all relevant boxes)

☐ New worker but not new to carbon disulfide work					
☐ Current worker continuing in carbon disulfide work					
Worked with carbon disulfide since: Click here to enter a date.					
Risk assessment completed: ☐ Yes ☐ No					
Work environment assessment (tick all relevant boxes) (information provided by the PCBU)					
Date of assessment: Click here to enter a date.					
Carbon disulfide industry					
\square Manufacture of regenerated cellulose and cellophane					
□ Poisoning pigs □ Other (specify): Click here to enter text.					
- 1 distring pigs - Ctrict (speciny).	0				
Other chemicals the worker may be exposed to: Click here to enter					
Other chemicals the worker may be exposed to: Click here to enter		□ No			
Other chemicals the worker may be exposed to: Click here to enter Controls	er text.				
Other chemicals the worker may be exposed to: Click here to enter Controls Eye Protection	er text. □ Yes	□ No			
Other chemicals the worker may be exposed to: Click here to enter Controls Eye Protection Wear gloves	□ Yes □ Yes □ Yes	□ No			
Other chemicals the worker may be exposed to: Click here to enter Controls Eye Protection Wear gloves Respirator use	□ Yes □ Yes □ Yes	□ No □ No			
Other chemicals the worker may be exposed to: Click here to enter Controls Eye Protection Wear gloves Respirator use Respirator type	□ Yes □ Yes □ Yes □ Yes □ Yes □ Click here	□ No □ No □ No to enter text.			
Other chemicals the worker may be exposed to: Click here to enter Controls Eye Protection Wear gloves Respirator use Respirator type Local exhaust ventilation	□ Yes	□ No □ No □ No to enter text. □ No			
Other chemicals the worker may be exposed to: Click here to enter Controls Eye Protection Wear gloves Respirator use Respirator type Local exhaust ventilation Overalls/work clothing	er text. ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Click here ☐ Yes ☐ Yes ☐ Yes	□ No □ No □ No to enter text. □ No □ No			

Health monitoring results

Biological monitoring results

Include/attach test results that indicate whether or not the worker has been exposed

Date	Tests performed	Recommended action or comment
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.

Comments about health monitoring results (for example any early indications or diagnosis of injury, illness or disease): Click here to enter text.

Registration Number: Click here to enter text.

Medical Practice: Click here to enter text.

Address: Click here to enter text.

Suburb: Click here to enter text.

This form contains confidential information and must not be disclosed to another person except in accordance with the Work Health and Safety Regulations or with consent of the worker

Recommendations (by registered medical practitioner) (tick all relevant boxes) Further/additional health monitoring for worker ☐ This is the final health monitoring report ☐ Repeat health assessment in Click here to enter text. month(s) / Click here to enter text. week(s) ☐ Counselling required ☐ Medical examination by registered medical practitioner. On Click here to enter a date. ☐ Referred to Medical Specialist (respiratory/dermatology/other). On Click here to enter a date. **Recommendations to PCBU** ☐ The worker is suitable for work with carbon disulfide ☐ Review workplace controls ☐ The worker should be removed from work with carbon disulfide. On Click here to enter a date. ☐ The worker is fit to resume work. On Click here to enter a date. ☐ Biological monitoring results indicate unacceptably high exposure levels Specialist's name: Click here to enter text. Additional comments or recommendations: Click here to enter text. Registered medical practitioner (responsible for supervising health monitoring) Name: Click here to enter text. Signature: Date: Click here to enter a date. Tel: Click here to enter text. Fax: Click here to enter text.

Postcode: Click here to enter text.

Section 2 – This section to be retained by the registered medical practitioner

Person conducting a business or undertaking					
Company/organisation name: Click here to enter text. Site address: Click here to enter text. Suburb: Click here to enter text. Postcode: Click here to enter text. Site Tel: Click here to enter text. Site Fax: Click here to enter text. Contact Name: Click here to enter text.					
Other businesses or underta	kings eng	aging the	worker	□ N/A	
Company/organisation name: Click here to enter text. Site address: Click here to enter text. Suburb: Click here to enter text. Postcode: Click here to enter text. Site Tel: Click here to enter text. Site Fax: Click here to enter text. Contact Name: Click here to enter text.					
Worker details (tick all relevan	t boxes)				
Surname: Click here to enter text. Date of birth: Click here to enter a		Give	n names: Click here to enter te	xt.	
	Pregnant/b	reastfeedir	ng		
Address: Click here to enter text. Suburb: Click here to enter text. Postcode: Click here to enter text. Current job: Click here to enter text.					
Tel (H): Click here to enter text. Mob: Click here to enter text. Date started employment: Click here to enter a date.					
Past employment and exposure details (tick all relevant boxes)					
Have you ever worked in any of the following jobs? If you answered 'yes' to any of the questions, please advise if you experienced any symptoms such as cough or wheeze or asthma when working. Comments (all 'yes' answers)					
Manufacture of regenerated cellulose and cellophane	□ No	☐ Yes	Click here to enter text.		
Poisoning pigs	□ No	☐ Yes	Click here to enter text.		
Other	□ No	□ Yes	Click here to enter text		

General health questionnaire (tick all relevant boxes)

			Comments (all 'yes' answers)
Did you suffer any incapacity lasting two weeks or longer in the last two years	□ No	□ Yes	Click here to enter text.
Have you ever had any operations or accidents or been hospitalised for any reason	□ No	□ Yes	Click here to enter text.
Are you currently being treated by a doctor or other health professional for any illness or injury	□ No	□ Yes	Click here to enter text.
Are you currently receiving any medical treatment or taking any medications. Please detail.	□ No	□ Yes	Click here to enter text.
Do you currently smoke	□ No	☐ Yes	Click here to enter text.
Do you practice personal hygiene at work, for example nail biting, frequency of hand washing, eating or smoking, clean shaven, shower and change into clean clothes at end of shift	□ No	□ Yes	
Specific health questions (tick a	ali relevar	nt boxes)	
Specific health questions (tick		it boxes)	
Do you have or have you ever ha		nt boxes)	Comments (all 'yes' answers)
•		□ Yes	Comments (all 'yes' answers) Click here to enter text.
Do you have or have you ever ha	d:		
Do you have or have you ever ha Blurred vision or other vision problems Itchy eyes, runny or congested	d:	□ Yes	Click here to enter text.
Do you have or have you ever hat Blurred vision or other vision problems Itchy eyes, runny or congested nose Wheezing, bronchitis or asthma	nd: No	□ Yes	Click here to enter text. Click here to enter text.
Do you have or have you ever hat Blurred vision or other vision problems Itchy eyes, runny or congested nose Wheezing, bronchitis or asthma now or in the past Any other lung or respiratory conditions (emphysema,	No No	☐ Yes ☐ Yes ☐ Yes	Click here to enter text. Click here to enter text. Click here to enter text.
Do you have or have you ever hat Blurred vision or other vision problems Itchy eyes, runny or congested nose Wheezing, bronchitis or asthma now or in the past Any other lung or respiratory conditions (emphysema, pneumonia or sinusitis) Allergies, hay fever, or allergic	No No No	☐ Yes ☐ Yes ☐ Yes ☐ Yes	Click here to enter text.
Do you have or have you ever hat Blurred vision or other vision problems Itchy eyes, runny or congested nose Wheezing, bronchitis or asthma now or in the past Any other lung or respiratory conditions (emphysema, pneumonia or sinusitis) Allergies, hay fever, or allergic bronchitis Breathing problems, nasal blockage, nose bleeds or lump in	No No No No	☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes	Click here to enter text.
Do you have or have you ever hat Blurred vision or other vision problems Itchy eyes, runny or congested nose Wheezing, bronchitis or asthma now or in the past Any other lung or respiratory conditions (emphysema, pneumonia or sinusitis) Allergies, hay fever, or allergic bronchitis Breathing problems, nasal blockage, nose bleeds or lump in nose Liver disease (including alcohol	No No No No No No	☐ Yes	Click here to enter text.
Do you have or have you ever hat Blurred vision or other vision problems Itchy eyes, runny or congested nose Wheezing, bronchitis or asthma now or in the past Any other lung or respiratory conditions (emphysema, pneumonia or sinusitis) Allergies, hay fever, or allergic bronchitis Breathing problems, nasal blockage, nose bleeds or lump in nose Liver disease (including alcohol related or other hepatitis)	No	☐ Yes	Click here to enter text. Click here to enter text.

Do you have or have you eve	er had:		Comments (all 'yes' answers)
Fits, blackouts, dizziness or fainting	□ No	☐ Yes	Click here to enter text.
Chronic fatigue or tiredness	□ No	☐ Yes	Click here to enter text.
Skin disorders or dermatitis	□ No	☐ Yes	Click here to enter text.
Any form of cancer	□ No	□ Yes	Click here to enter text.
Any other significant health conditions	□ No	□ Yes	Click here to enter text.
General health assessment	t (if applical	ble)	
Height: Click here to enter text. BP: Click here to enter text. / Cl Urinalysis Blood: □ Normal □ Abnormal		_	t: Click here to enter text. kg
Protein: Click here to enter text		Referr	ed for further testing
Sugar: Click here to enter text.		□ No	□ Yes
Cardiovascular system			Medical comments (for all yes/abnormal)
Blood pressure	☐ Normal	☐ Abnormal	Click here to enter text.
Heart rate	☐ Normal	☐ Abnormal	Click here to enter text.
Heart sounds	☐ Normal	☐ Abnormal	Click here to enter text.
Murmurs present	□ No	□ Yes	Click here to enter text.
Evidence of cardiac failure/oedema	□ No	☐ Yes	Click here to enter text.
Respiratory system			
Breathing normal and regular in character	n 🗆 Ye	es 🗆 No	Click here to enter text.
Auscultation normal	□ Ye	es 🗆 No	Click here to enter text.
Signs of past/present respirato disease	ry 🗆 No	⊃ □ Yes	Click here to enter text.
Nervous system			
Muscular tone, co-ordination	☐ Normal	☐ Abnormal	Click here to enter text.
Tremor	□ No	□ Yes	Click here to enter text.
Skin			
Eczema, dermatitis or allergy	□ No	o □ Yes	Click here to enter text.
Skin cancer or other abnormali	ty 🗆 No	o □ Yes	Click here to enter text.
Evidence of nail biting	□ No	o □ Yes	Click here to enter text.
Other	□ No	o □ Yes	Click here to enter text.

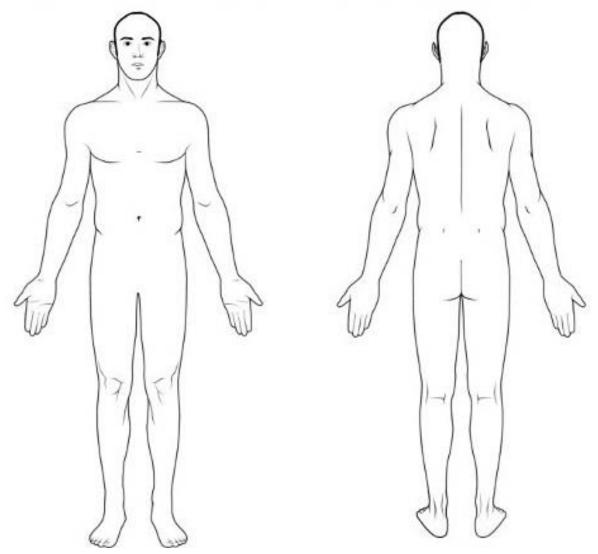


Figure 1 Template of the human body to indicate the location of abnormalities

Eye			Medical comments (for all abnormal)
Evidence of eye irritation	□ No	☐ Yes	Click here to enter text.

Biological monitoring results

Include/attach at least the previous two test results (if available)

Date	Tests performed	Recommended action or comment
Click here to enter a date.	Click here to enter text.	Click here to enter text.
Click here to enter a date.	Click here to enter text.	Click here to enter text.
Click here to enter a date.	Click here to enter text.	Click here to enter text.
Click here to enter a date.	Click here to enter text.	Click here to enter text.

Other medical history, family medical history, current medication, comments, tests or recommendations (use separate sheet if necessary)

Click here to enter text.

Registered medical practitioner (responsible for supervising health monitoring)

Name: Click here to enter text.

Date: Click here to enter a date.

Tel: Click here to enter text. Fax: Click here to enter text.

Registration Number: Click here to enter text.

Medical Practice: Click here to enter text.

Address: Click here to enter text.

Suburb: Click here to enter text. Postcode: Click here to enter text.