AMWU

CANCER AND WORK

AUSTRALIAN RESEARCH ESTIMATES THAT APPROXIMATELY 14% OF CANCER DEATHS IN AUSTRALIAN MALES AND 2.2% OF CANCER DEATHS IN AUSTRALIAN FEMALES ARE CAUSED BY OCCUPATIONAL EXPOSURES.

It means that, every year, at least 5 000 invasive cancers and about 34 000 non-melanoma skin cancers are being caused by occupational exposures in Australia. It is estimated that approximately 1.5 million Australian workers are exposed to occupational carcinogens.

Not everyone is at risk. The great majority of occupational cancers are concentrated in blue collar jobs, meaning those workers face a massively increased risk, while others face virtually none.

In manufacturing, what's causing cancer?

According to Italian research, workers in the metal manufacturing and construction industries, have more work related cancers than other workers. The researchers found that found that the fabricated metal industry accounted for 24% of carcinogen-exposure cases, followed by construction at 10%.

More than half (58%) of the cases involved lung cancer, followed by cancer of the nose & sinuses (17%) and bladder cancer (2%).

The most commonly identified carcinogens were silica (20%), polycyclic aromatic hydrocarbons (PAHs – 20%), asbestos (14%), radiation (11%) and metals and compounds (10%). PAHs are found in diesel engine exhaust and coal tars.

LITTLE COMPENSATION TO THOSE WITH WORK RELATED CANCER

The Cancer Council of Western Australia estimates that only 8 per cent of workers with occupational cancers ever receive compensation.

The Cancer Council says there are many possible reasons for this under-compensation, including:

- lack of awareness of occupational risk factors for cancer among workers and health professionals
- lack of awareness of the ability to claim compensation, or how to access compensation schemes
- inadequate recording of workers' occupational history, which could help to identify possible exposure to carcinogens
- better awareness of other non-occupational risk factors for specific cancers. For example, lung cancer is more often caused by smoking, so workers may miss a link to on the- job exposures such as wood dust, diesel and certain metals.

Another reason is that big industry often lobbies, successfully, which means that the evidence of risks posed by some jobs is suppressed or played down.

But as the Cancer Council WA report notes:

Australians should be able to carry out a day's work without adding to their risk of cancer.
Not all of the causes of cancer are known to science. But known carcinogens should, as much as possible, be removed from the workplace.

Another Australian scientists have published a list of 38 agents – the majority of which could be removed from our work environments eg diesel fumes.

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For Men - Top 30 of 38 Cancer Causing Agents in Australian Researchers List

[Adapted from Carey RN, et al. Occup Environ Med 2014: 71:55–62.]

Agent	For men most common Occupation Groups	Estimated % of male working population exposed
Solar radiation	Farmer, animal/horticultural, painter	37.0
Diesel engine exhaust	Farmer, heavy vehicle driver, miner	28.6
Environmental tobacco smoke	Painter, plumber hospitality	24.8
Benzene	Farmer, animal/horticultural,automobile driver	13.5
Lead	Painter, vehicle worker, plumber	10.7
Silica	Miner, Construction, engineer	11.6
Wood dust	Carpenter, painter, handyperson	9.6
Artificial ultraviolet radiation	Farmer, vehicle worker, metal worker (eg welder)	8.3
Polycyclic aromatic hydrocarbons	Farmer, emergency worker, food service	9.7
Shiftwork - exposed to one or more of seven shift work agents	Nurse, miner, passenger transport	8.4
Chromium VI	Painter, metal worker, carpenter	6.2
Asbestos	Emergency worker, vehicle worker (eg gaskets), miner	5.4
Formaldehyde	Carpenter, Painter, emergency worker	4.3
Nickel	Metal worker [eg welders], plumber,vehicle worker	3.6
Ionising radiation	Health professional, miner, scientist	2.7
Trichloroethylene	Farmer, metal worker, plumber	1.6

For Women -- Top 8 of 14 Cancer Causing Agents in Australian Researchers List

[Adapted from Carey RN, et al. Occup Environ Med 2014: 71:55–62.]

Agent	For women Most Common Occupation Groups	Estimated % of female working population exposed
Solar radiation	Farmer, handyperson, automobile driver	7.9
Diesel engine exhaust	Metal worker, heavy vehicle driver, miner	6.0
Shiftwork - exposed to one or more of seven shift work agents	Nurse, emergency worker, passenger transport	4.5

Agent	For women Most Common Occupation Groups	Estimated % of female working population exposed
Benzene	Farmer, animal/horticultural, automobile driver	5.1
Environmental tobacco smoke	Construction, miner, heavy vehicle	5.8
Ionising radiation	Health professional, nurse, scientist	2.3
Polycyclic aromatic hydrocarbons	Farmer, emergency worker, food service	2.5
Silica	Miner, Construction, farmer	1.0

GETTING STARTED

Barely one in every 100 chemicals used at work has been systematically tested. Finding out if there is a workplace risk requires union vigilance. That means doing your own detective work.

1. Identify possible cancer risks in the workplace. List substances and processes that are known or suspected hazards. Locations where cancer agents may be found should be noted and exposed workers should be informed by the union and the company.

2. Insist substances or processes presenting a cancer risk are where possible removed and substituted with less hazardous substances or safer work methods. Set priorities for action. Union priorities for dealing with risks are in order: elimination; substitution; control; and if nothing else is possible, personal protective equipment such as masks or protective clothing.

3. Ensure workers with work-related cancers are given the support they need and receive any sickness or compensation payments to which they are entitled. Seek union endorsed medical screening programmes for workers who have had exposure to workplace hazards, including possible cancer risks. This should include retired members, who are most likely to develop work-related cancers.

4. Ensure community support by making sure the public knows about air emissions and hazardous waste from the workplace that may be a cancer concern.

5. Don't act alone – make sure the prevent cancer campaign has the support of the workforce and union. Contact your organiser for assistance.

CHEMICALS AND PROCESSES WITH WELL KNOWN DANGERS

If chemicals from the following categories are present in your workplace, you should take steps to have them eliminated and replaced with safer products and/or processes. For chemicals the Safety Data Sheet should have this information:

- Cancer causing agents: Class 1 and Class 2A carcinogens
- Mutagens, which are the chemicals which damage our genetic make up e.g. gamma ionising radiation
- Teratogens which are chemicals which damage the unborn foetus e.g. thalidomide, lead
- Reproductive and endocrine disrupters
- Sensitisers and asthma causing agents.

International Agency for Research on Cancer (IARC) groups cancer risks into 3 major groups. Class 1 and Class 2A are the most important:

CLASS 1: PROVEN TO CAUSE CANCER IN HUMANS – some of the 113 in total		
Hazard	**Types of cancers**	**Examples of Users**
Asbestos	Lung cancer, cancer of the lung lining [mesothelioma]	Gaskets, back of switchboards, cement sheeting, brake linings etc.
Benzene	Leukaemia	Petroleum products and combustion residue containing benzene. In the past some cleaning solvents especially in the print industry
Chromium (VI) compounds	Nose, lung	Found in Welding fumes, Metal plating, Airline industry, Dye manufacture

CLASS 1: PROVEN TO CAUSE CANCER IN HUMANS – some of the 113 in total		
Hazard	**Types of cancers**	**Examples of Users**
Diesel Exhaust Fumes	Lung	Diesel motors that are not exhausted to outside or where workers work close to diesel exhausts
Nickel compounds Trichloroethylene	Nose, lung Liver, lymphoma	Found in Welding fumes, Metallurgy Degreasers, solvent
Shale oils	Skin	Lubricants, fuel
Iron and steel founding	Lung cancer	Asbestos, Benzene, Polyaromatic hydrocarbons
Welding	Ocular [eye] melanoma	Welding exposure to UV light

Group 2A: PROBABLY CAUSE CANCER IN HUMANS - some of the 66 in total:		
Hazard	**Types of cancers**	**Examples of Users**
Tetrachloroethylene	Oesophagus, lymphoma	Dry cleaning, solvent
Crystalline silica	Lung	Glass, stone cutting
Acrylonitrile	Lung, prostate	Plastics, rubber
Formaldehyde	Nose/throat	Laboratories, plastics, solvent
Shiftwork	Breast cancer	Shift work that involves circadian disruption i.e. night work

IARC Classification to be reviewed		
Hazard	**Types of cancers**	**Examples of Users**
Welding 2B Probably Carcinogenic -- this classification was done in 1990, since then there have been manystudies linking welding to lung cancer, including not just amongst stainless steel welders, but also mild steel welding with exposures to iron and manganese fumes	Lung	Welding fumes especially nickel and chromium

FOR AN INDIVIDUAL -- IS THERE A LINK BETWEEN WORK AND CANCER?

For an individual with cancer it is often hard to discover the cause and doctors can be reluctant to consider the work relatedness of a cancer. This is a world wide problem.
To assist your Doctor there are two forms we suggest you fill out

- Cancer and the link to work
- Cancer was it caused by work.
  http://www.amwu.org.au/info_and_fact_sheets

You may also suggest that your doctor looks at a brief online course about occupational cancer from the Canadian Centre for Occupational Health and Safety. **http://www.ccohs.ca/products/courses/prevent_cancer/**