



MONITORING EMPLOYEE HEALTH UNDER THE MODEL WHS LEGISLATION

The Executive Committee of the Occupational Health Society of Australia (WA) [OHSWA(WA)] in conjunction with the President of the Faculty of Occupational and Environmental Health, met on 29th January to discuss what action could be taken to provide input to the Ministerial Advisory Panel advising the Minister for Mines and Petroleum, Commerce and Industrial Relations, Bill Johnston, on the introduction of the National Model WHS legislation.

There was general discussion of how the requirement under the Model Act to monitor the health of employees was being implemented in other jurisdictions, where the focus appeared to be exclusively on certain hazardous substances.

Attendees were provided with a copy of the ILO Technical and Ethical Guidelines for Workers' Health Surveillance 1998 which clearly documents all the requirements essential to the implementation of a surveillance program to protect workers' health.

A number of follow up actions were agreed to:

- other organisations with a vested interest in workers' health be invited to participate;
- the Chairperson of the Ministerial Advisory Panel be approached for a further discussion on how the interested parties could become involved in the design of a meaningful monitoring/surveillance program.

The purpose of the Guidelines was to assist all those who have responsibilities to design, establish, implement and manage workers' health surveillance schemes that will facilitate **preventive action** towards ensuring a healthy and safe working environment for all.

The guideline provisions are considered to be the basic requirement for the surveillance of workers' health and are not intended to discourage competent authorities from adopting higher standards.

Any OHSWA(WA) member interested in this matter is welcome to advise the secretariat of their interest.



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Legislative/regulatory matters

Review of the model WHS laws

Ministers responsible for WHS have agreed to review the content and operation of the model WHS laws. This is the first opportunity since the laws were implemented to explore how the model WHS laws are working in practice and is part of the original plan to review the model WHS laws regularly and ensure they continue operating effectively.

WA is the only state that has not adopted the Model Act.

Previous reviews have focused on identifying unnecessary regulatory burdens rather than a broader examination of the operation of the model WHS laws.

Review scope

An extensive consultation process will explore:

- whether the model WHS laws are achieving their original objectives
- whether the model WHS laws have resulted in any unintended consequences, and
- key concepts that were new or significantly different for most jurisdictions, including the duties framework, penalty and enforcement measures and consultation, representation and issue resolution provisions.

The review terms of reference have been set by WHS ministers.

Consultation

You will have a chance to have your say. Public consultation will begin in 2018 and more information about how to get involved will be available soon.

Independent reviewer

Marie Boland will lead the review and brings a wealth of experience in WHS policy and regulation.

Marie was the Executive Director of SafeWork SA from 2015 to 2017. Before this, she held various senior positions at SafeWork SA, including playing a key role in implementing the model WHS Act and Regulations in South Australia and being actively involved in the policy and legislative work surrounding South Australia's referral of industrial relations powers to the Commonwealth.

Marie has a Master of Arts (History) and a law degree from the University of Adelaide. She was admitted as a practitioner of the Supreme Court of South Australia in 2007.

Regulation of the labour hire industry in Queensland

Queensland will establish a mandatory labour hire licensing scheme from 16 April 2018 to protect labour hire workers and safeguard labour hire providers that are ethical and responsible.

Under the scheme, all labour hire providers operating in Queensland will need to be licensed, involving:

- passing a fit-and-proper person test
- complying with workplace laws, including workers' compensation, wages and superannuation
- paying a licence fee
- reporting regularly on their operations.

The scheme will be backed by stiff penalties and some offenders will be liable for criminal prosecution.

Source: WorkCover Queensland, 10 January 2018

SAFETY



THE SAFETY AND HEALTH OF WOMEN WORKING IN THE CONSTRUCTION INDUSTRY

In the US, OSHA has renewed its alliance with the National Association of Women in Construction “to continue promoting safe and healthful working conditions for female construction workers.”

The five-year pact will target hazards specific to women in construction, including selection of personal protective equipment, sanitation, and workplace intimidation and violence.

According to OSHA’s website the alliance intends to collaborate on raising awareness of OSHA’s rule making and enforcement tactics by:

- Sharing information on OSHA’s National Emphasis Programs, Regulatory Agenda, and opportunities to participate in the rule making process
- Sharing information on occupational safety and health laws, standards and guidance resources, including the rights and responsibilities of workers and employers
- Convening or participating in forums, roundtable discussions or stakeholder meetings on construction to create innovative workplace solutions or to give input on safety and health issues

NAWIC was formed in 1955 and provides educational and professional development opportunities to more than 4,000 women working in construction.

Source: Safety and Health Magazine, 10 January 2018

Consolidated report – Airborne contaminants in underground metalliferous mines

January 2018

In NSW, the Resources Regulator has published a consolidated targeted assessment report summarising the findings of assessments undertaken in relation to the hazard of airborne contaminants in underground metalliferous mines.

Commencing in August 2017, assessments were completed at five mines using both desktop and on-site assessments.

General findings: Risk Assessment

- Some mines did not assess all lead risk work areas, with contract truck drivers sampling, loading and hauling concentrate not adequately assessed.
- Mobile plant, both with and without sealed pressurised cabins, was operating in underground mines performing similar tasks without additional controls being implemented to manage additional risks to operators of plant with exposed cabins.
- Filtration for pressurised sealed cabins was not assessed against types of airborne contaminants and particle size generated from mining operations.

Training

- The documented training system for maintenance of sealed pressurised cabins on mobile plant did not capture the complexity of sealing components, or include the identification and selection of available trades personnel.

Ventilation Control Plan

- Ventilation control plans did not include all requirements identified in legislation.

The relevant occupational health risks - Monitoring Worker Health

- The Resources Regulator has recommended a number of actions in relation to health monitoring, including that mine operators should consider informing medical providers of the known specific health risks of the work performed by the workers, which may assist to determine symptomology and diagnosis.
- The inaccurate interpretation of chest x-rays by third party medical providers was identified as a contributory factor in the reemergence of pneumoconiosis in the Queensland coal industry.

EMERGENCY MANAGEMENT IN WA MINES

A new code of practice for emergency management for Western Australian mine sites has been released by the Department of Mines, Industry Regulation and Safety (DMIRS).

The Code provides guidance to mining operations on emergency management systems as well as developing and evaluating safe work procedures for such systems.

It is available online or in hard copy from safetycomms@dmirs.wa.gov.au

CODE OF PRACTICE

Emergency management for Western Australian mines



Government of Western Australia
Department of Mines, Industry Regulation and Safety

AIR POLLUTION/AIR QUALITY



Air pollution could be causing irregular periods in teens, study finds

A US study has linked air pollution to yet another health concern, finding that poor air quality could be affecting teenage girls' menstrual cycles.

Carried out by Boston University School of Medicine, the new study gathered data from 34,832 women taking part in the large-scale Nurses' Health Study 2, which looked at both the health and location of the participants.

The results showed that participants' exposure to air pollution during high school was linked with a slightly increased chance of irregular menstrual cycles, and a longer time for cycles to become regular in high school and early adulthood.

Previous studies have already suggested that air pollution can have a negative effect on hormonal activity, potentially causing infertility, metabolic syndrome and polycystic ovary syndrome.

However, this study is the first to show that exposure to air pollution among teenage girls (ages 14-18) is associated with the regularity of the menstrual cycle, which responds to hormone regulation.

The findings can be found published online in the journal *Human Reproduction*.

Source: 2018 Global News, 26 January 2018



AIR POLLUTION LINKED TO 'EXTREMELY HIGH MORTALITY' IN PEOPLE WITH MENTAL DISORDERS

A major study in Hong Kong has found that the risk of death for people with mental and behavioural disorders rises sharply on days when air pollution reaches toxic peaks.

Researchers analysed a decade of death statistics and revealed a strong link, with the mortality risk rising 16% on the first day of haze and 27% on the second day compared to normal days. If the haze was accompanied by high ozone pollution, the risk of death increased by 79%.

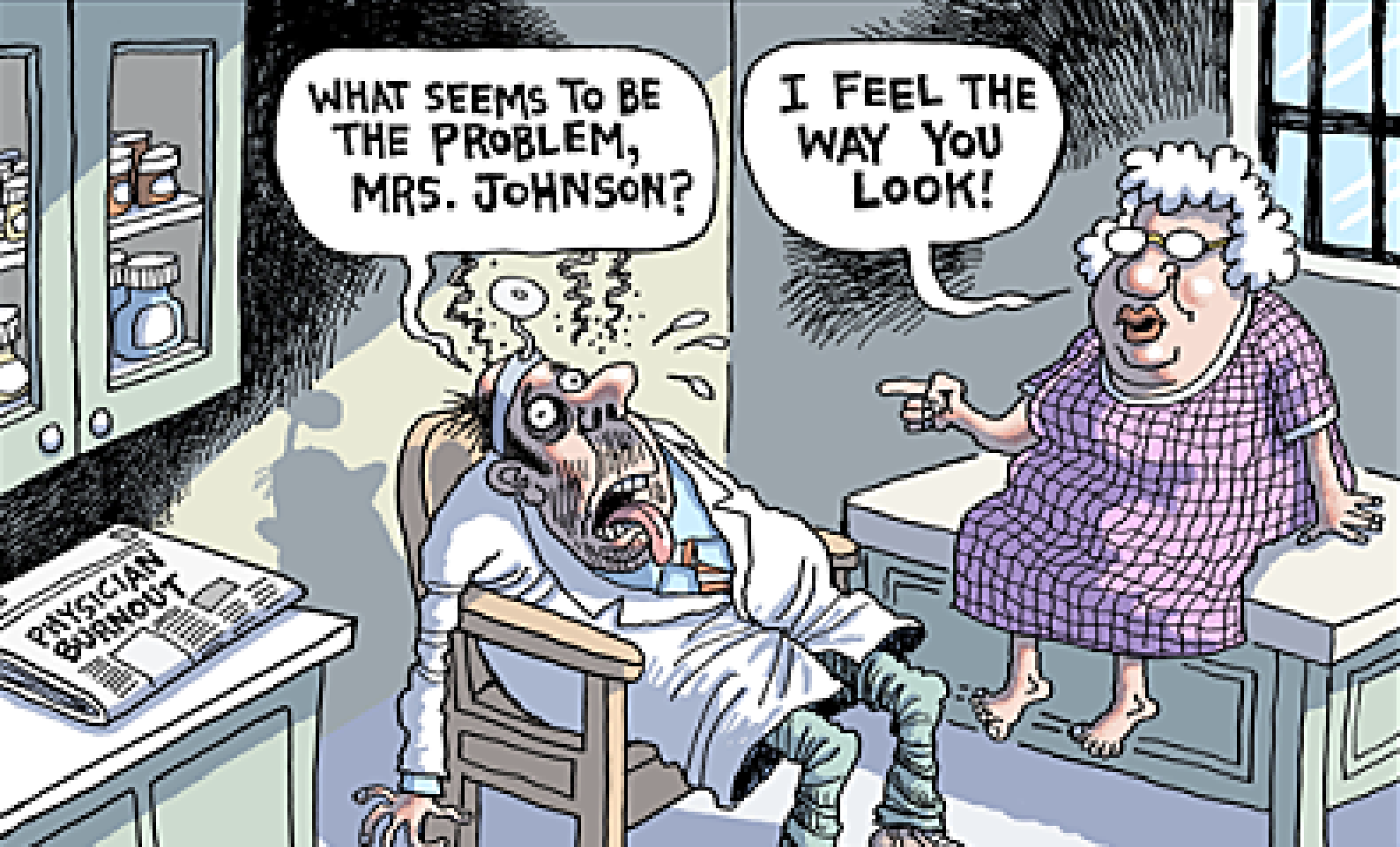
Prof Jonathan Grigg, at Queen Mary University of London in the UK and not part of the research team, said: "The association between poor air quality and mortality due to mental and behavioural disorders reported in this study is very disturbing."

The Hong Kong research, published in the journal *Environment International*, is the first to analyse the link of haze days and risk of death. Haze days are those on which pollutants gather in the air and cut visibility, usually dry days with low winds.

The scientists examined more than 284,000 deaths, including those among people with mental and behavioural disorders including depression, bipolar, schizophrenia and dementia.

Source: The Guardian, 27 January 2018

Pic: The Hong Kong research is the first to analyse the link of haze days and risk of death. Photograph: Alex Hofford/EPA



PHYSICIAN - HEAL THYSELF

Surgeons and medical interventionalists are at high risk for work-related musculoskeletal disorders, with rates comparable to construction workers, according to a systematic review and meta-analysis published online December 27 in *JAMA Surgery*.

The study is the first synthesis of the topic to date, and throws light on a problem many physicians face during their careers.

Lead author Bernard Lee, a plastic surgeon at Harvard Medical School in Boston, said "These are common symptoms and common disorders. Many work-related musculoskeletal disorders depend on positioning and result from standing in awkward, static positions for long periods of time, often with heavy equipment worn on the head, or heavy gowns worn on the body."

Long hours spent performing repetitive movements and less-than-ideal instrument design can also add to the wear and tear on surgeons' bodies. Such problems can cause some surgeons to cut back on procedures, take time off from work for rehabilitation or surgery, and even shorten careers.

The problem is so significant that some experts have referred to it as "an impending epidemic," and fear that it may contribute to the projected shortage of surgeons in coming years.

Dr Lee and colleagues carried out a meta analysis of studies on work-related musculo-skeletal disorders in subjects and medical interventionalists. The results pointed to the need for evidence-based ergonomic programs which should be integrated with other types of wellness programs designed to prevent physician burn-out, attrition and suicide.

Dr Lee said "The number one thing we need to do is improve awareness. We need to know that this is a problem. We need to improve awareness from the earliest levels, whether in residency or even in medical school. Ergonomics could be as simple as standing up straight, or making sure that your neck is in the right position, or making sure that you're not bending halfway over the table to do something."

Source: Veronica Hackethal, MD. Dec 2017



Teacher recruits decline due to high workloads and low pay

In the UK the union LELL has warned that low pay, excessive workloads and scrutiny and bureaucracy are behind a huge drop in teaching recruits.

The number of teacher training applications fell by a third from 19,330 in December 2016 to 12,820 in 2017.

The union says that the main problem is a high workload caused by over-scrutiny and a 'lack of trust in teachers'.

Source: TUC Risks, 852, 13 January 2018

Fracking raises major concerns about safety, occupational and environmental health

Fracking in North Yorkshire, UK has come under fire following a damning safety report from the HSE using freedom of information. The report's revelations include inadequate provision of accident and emergency back-up, missing safety documents and lack of provision to deal with gas leaks.

The company involved has admitted that most of the drilling equipment in use is out of date and does not meet modern-day standards.

Strangely, the occupational and environmental health consequences are not mentioned. However, one can only speculate about the standards under which employees worked and for the public generally.

Source: TUC Risks, 835, 3 February 2018

Work pressure stressing the UK clergy


The unremitting demands on Church of England priests is leading increasing numbers to turn to unions for support.

Faced with demanding congregations, rarely being off duty, paperwork and disciplinary procedures they often feel are unfair, almost 1,500 priests plus a few rabbis and imams joined the clergy union last year - an increase of 16 percent in 12 months.

The Anglican vicars are joining despite not having the usual British employment rights, because they are termed 'office-holders' and cannot take their complaints to an employment tribunal.

Source: Risks 33, 20 January 2018

HEALTH - PHYSICAL



Dr. Austen performed surgery on Debra Haining at Massachusetts General Hospital. The dots on her face mark the trigger points where she had told the doctor the migraine pain strikes. (Yoon S. Byun/Globe Staff)

Migraine sufferers can improve following migraine surgery

Surgery has become recognised as an effective treatment option for selected patients with chronic, severe migraine headaches who do not respond to standard treatments. Developed by plastic surgeons who noticed that some migraine patients had fewer headaches after cosmetic forehead-lift, migraine surgery procedures address trigger sites linked to certain headache patterns.

Ninety patients underwent migraine surgery, performed by Dr. William Gerald Austen of Massachusetts General Hospital, between 2013 and 2015. Before and after surgery, patients were evaluated on a standard migraine questionnaire (the Migraine Headache Inventory, or MHI) and on the Pain Self Efficacy Questionnaire (PSEQ). The final analysis included 74 patients who completed both questionnaires at one-year follow-up after migraine surgery.

Before migraine surgery, the patients had “extremely poor” PSEQ scores, indicating a high level of disability. Preoperative pain coping scores in migraine patients were substantially lower than reported for patients with other types of chronic pain -- for example, neuropathic (related to nerve damage) pain, arthritis, or lower back pain.

Migraine surgery improved functioning and coping even in patients with very low initial PSEQ scores. That’s in contrast to patients with musculoskeletal problems such as low back pain, in whom low PSEQ scores predict poor treatment outcomes.

“It seems that migraine surgery patients can recover function and ability to cope with pain very well after surgery, in stark contrast to what has been shown in other pain conditions,” Dr. Austen and coauthors write. They note that surgery also led to an average 76 percent improvement in the migraine-specific MHI score, measuring outcomes like headache frequency, duration, and severity.

The new study shows “continued positive outcomes” after migraine surgery in appropriately selected patients, including large improvements in migraine-related disability. Dr. Austen and colleagues conclude, “Chronic pain questionnaires such as the PSEQ add to our understanding of functional outcome after surgery and put pain in migraine surgery patients in perspective against better-known pain conditions.”

Source: *ScienceDaily*, 3 January 2018



The future not bright for Alzheimer's sufferers

A new study of Alzheimer's calculates that approximately 6 million American adults have Alzheimer's disease or mild cognitive impairment and predicts a sharp increase over the next three decades as the population ages.

Ron Brookmeyer, a professor of biostatistics at the UCLA Fielding School of Public Health, and a lead researcher on the study said by 2060 15 million people in the US will have either Alzheimer's, dementia or mild cognitive impairment.

What's unique and new about the study is for the very first time we are able to put estimates on the numbers of each of the different stages of the disease.

Forecasting suggests more than a doubling by 2060 of the people who have clinical disease, going from about six million to 15 million by 2060.

"This is a wake up call that there will be resources needed as the population ages," said Mr Brookmeyer.

The researchers found that by 2060 about 5.7 million Americans will have mild cognitive impairment and another 9.3 million will have dementia due to Alzheimer's, four million of which will need an intensive level of care similar to that provided by nursing homes.

According to Brookmeyer, the number of people suffering is expected to rise in the future largely because people are living longer and are less likely to succumb to other diseases at a younger age.

Brookmeyer said that there are an estimated 46.7 million people in the US currently at the preclinical stage, meaning that some brain changes were picked up by the brain imaging. However, Brookmeyer said only a small fraction of the 46.7 million people will actually develop the disease.

A woman with long brown hair, wearing a white short-sleeved top and light-colored pants, is sitting on a white sofa. She is smiling and looking towards the camera. She has her hands clasped near her chin. An open book is resting on her lap. The background is a bright, airy room with a window and some blue pillows on the sofa.

HEALTH - PSYCHOLOGICAL

MAJOR STUDY SHOWS WOMEN ENDURE CRISES BETTER THAN MEN

In what may come as a surprise for a lot of men, research carried out by the University of Southern Denmark and Duke University, USA, has found that women today tend to live longer than men almost everywhere worldwide — in some countries by more than a decade.

Most of the life expectancy gender gap was due to a female survival advantage in infancy rather than adulthood, the research team found. In times of adversity, newborn girls are more likely to survive.

The research team analysed mortality data going back roughly 250 years for people whose lives were cut short by famine, disease or other misfortunes.

When the researchers broke the results down by age group, they found that most of the female survival advantage comes from differences in infant mortality. Newborn girls are hardier than newborn boys.

The results suggest that the life expectancy gender gap can't be fully explained by behavioural and social differences between the sexes, such as risk-taking or violence.

Instead, the female advantage in times of crisis may be largely due to biological factors such as genetics or hormones. Estrogens, for example, have been shown to enhance the body's immune defences against infectious disease.

The findings were published Jan. 8, 2018, in the early online edition of Proceedings of the National Academy of Sciences.

Source: Bioscience Technology, 25 January 2018

Alzheimer's drug turns back time in mitochondria

The experimental drug J147 is something of a modern elixir of life; it's been shown to treat Alzheimer's disease and reverse aging in mice and is almost ready for clinical trials in humans. Now, Salk scientists have solved the puzzle of what, exactly, J147 does. In a paper published Jan. 7, 2018, in the journal *Aging Cell*, they report that the drug binds to a protein found in mitochondria, the energy-generating powerhouses of cells. In turn, they showed, it makes aging cells, mice and flies appear more youthful.

"This really glues together everything we know about J147 in terms of the link between aging and Alzheimer's," says Dave Schubert, head of Salk's Cellular Neurobiology Laboratory and the senior author on the new paper. "Finding the target of J147 was also absolutely critical in terms of moving forward with clinical trials."

Schubert's group developed J147 in 2011, after screening for compounds from plants with an ability to reverse the cellular and molecular signs of aging in the brain. J147 is a modified version of a molecule (curcumin) found in the curry spice turmeric. In the years since, the researchers have shown that the compound reverses memory deficits, potentiates the production of new brain cells, and slows or reverses Alzheimer's progression in mice. However, they didn't know how J147 worked at the molecular level.

In the new work, led by Schubert and Salk Research Associate Josh Goldberg, the team used several approaches to home in on what J147 is doing. They identified the molecular target of J147 as a mitochondrial protein called ATP synthase that helps generate ATP—the cell's energy currency—within mitochondria. They showed that by manipulating its activity, they could protect neuronal cells from multiple toxicities associated with the aging brain. Moreover, ATP synthase has already been shown to control aging in *C. elegans* worms and flies.

"We know that age is the single greatest contributing factor to Alzheimer's, so it is not surprising that we found a drug target that's also been implicated in aging," says Goldberg, the paper's first author.

Further experiments revealed that modulating activity of ATP synthase with J147 changes the levels of a number of other molecules—including levels of ATP itself—and leads to healthier, more stable mitochondria throughout aging and in disease.



"I was very surprised when we started doing experiments at how big an effect we saw," says Schubert. "We can give this to old mice and it really elicits profound changes to make these mice look younger at a cellular and molecular level."

The results, the researchers say, are not only encouraging for moving the drug forward as an Alzheimer's treatment, but also suggest that J147 may be useful in other age-associated diseases as well.

"People have always thought that you need separate drugs for Alzheimer's, Parkinson's and stroke" says Schubert. "But it may be that by targeting aging we can treat or slow down many pathological conditions that are old-age-associated."

Source: Bioscience Technology, 12 January 2018

Pic: A pipette of J147 from the Schubert lab. Image: Salk Institute

SLEEP / FATIGUE

Fatigue is bad for both doctors and patients

Lack of sleep resulting from long shifts and excessive workloads is jeopardising patient safety, the British Medication Association (BMA) has warned.

The long and demanding hours coupled with frequent changes in rotas and insufficient recovery periods means thousands of doctors are at an increased risk of sleep deprivation and fatigue.

The BMA states that the dangers posed by sleep deprivation require the government and employers in the NHS to commit to a comprehensive framework for addressing workplace fatigue.

The BMA report simply states what has been recognised widely over the past decade and there seems little on the horizon to alter the status quo.

Source: *Risks* 823, 20 January 2018

NANOMATERIALS

WHO releases safety guidelines for nanomaterials

In December, the World Health Organization (WHO) released the *Guidelines on Protecting Workers from Potential Risks of Manufactured Nanomaterials*, a comprehensive list of safety recommendations and best practices on nanomaterials for workplaces in small and medium sized business and low and middle-income countries.

The increased production of manufactured nanomaterials and their use in consumer and industrial products may expose workers across the globe to potential adverse health effects.

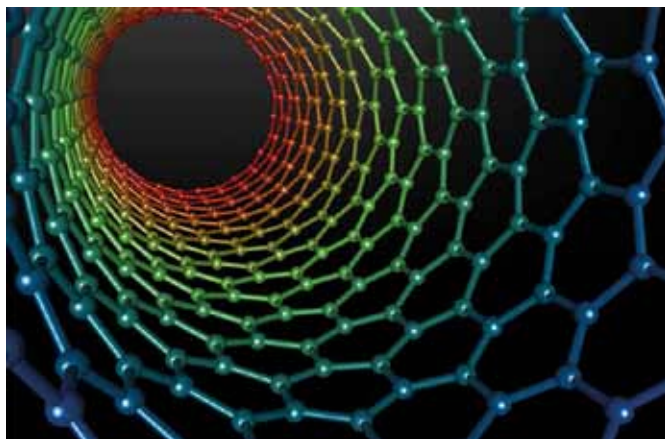
Nanomaterials present unique health hazards that differ from those of the substance in bulk form and could require different test methods for hazard, exposure and risk assessment.

The toxicity of nanomaterials may largely depend on numerous physicochemical properties, including size, shape, composition, surface characteristics, charge and rate of dissolution.

There is currently a lack of precise information about human exposure pathways for nanomaterials, their fate in the human body and their ability to induce unwanted biological effects, including generation of oxidative stress.

Source: *RDMag*, 12 January 2018

**WHO GUIDELINES
ON PROTECTING WORKERS
FROM POTENTIAL RISKS
OF MANUFACTURED NANOMATERIALS**



HAZARDOUS MATERIALS

Workers in the nail care sector exposed to 60 hazardous substances

According to a report published on 23 November by the French Agency for Food, Environmental and Occupational Health & Safety (ANSES), manicurists working in nail salons – almost all of whom are women – are exposed to around 700 different substances, 60 of which are ‘of very high concern’ and 90 of which are ‘of concern’.

ANSES carried out its investigations in nail salons in Île-de-France and Hauts-de-Seine (Greater Paris area) between July 2015 and October 2016.

Although some of the substances found to be present were known carcinogens, respiratory and dermatological pathogens (in particular asthmagens) represent the most serious risks faced by workers in these salons. Over half of the relevant conditions are caused by exposure to the methacrylates present in nail art gels and resins.

The problem is compounded by exposure to volatile and semi-volatile organic compounds, some of which are carcinogenic, mutagenic and reprotoxic substances (CMRs) or neurotoxic substances.

In its report, ANSES criticises the relative ineffectiveness of the means of prevention most commonly employed, such as suction collectors and masks or gloves worn as a barrier against dust: ‘Although surgical masks may help to prevent the spread of germs, they offer no protection against vapours, and very little or no protection against fine particles. The Agency adds that gloves – in particular nitrile gloves – degrade when they come into contact with acetone, which reduces their effectiveness.

The French Agency recommends that employers in the sector should endeavour to find safer alternatives to replace the most hazardous products.

In January 2015, 4 739 nail technicians were registered with the French Chamber of Trades.

Source: ETUI, 30 November 2017





Burden of Occupational Cancer in Ontario

Major Workplace Carcinogens and Prevention of Exposure

Workplace exposures cause significant number of cancers in Ontario

Late in 2017, the Occupational Cancer Research Centre (OCRC) in Toronto published a report on work-related cancer in Ontario. The study identified solar radiation, asbestos, diesel-engine exhaust and crystalline silica as the four major causes of work-related cancer in Canada's most populous province.

The report stated that diesel engine exhaust in workplaces causes an estimated 170 lung cancer cases and 45 bladder cancers each year in Ontario, while crystalline silica accounts for nearly 200 cases of occupational lung cancer.

Workers' exposure to solar ultra-violet radiation causes an estimated 1,400 non-melanoma skin cancer cases annually.

The authors made several recommendations to reduce occupational cancer cases in Ontario, including strengthening occupational exposure limits, establishing exposure registries and surveillance and reducing the use of toxic substances.

The full report can be downloaded from <https://www.etui.org/Topics/Health-Safety-working-conditions/News-list/Canada-Workplace-exposures-account-for-a-significant-number-of-cancers-in-Ontario>

Source: ETUI, News 20 October 2017

The cost of occupational cancer in the EU

It is estimated that there are approximately 1.3 million cancer deaths in the European Union (EU) every year, and past research suggests that 2-12% of cancer deaths may relate to occupational exposure to carcinogens. In order to establish an effective and efficient strategy for tackling this problem, a better understanding is required of the burden of occupational cancer and the associated key carcinogenic agents.

The aim of this study was to estimate the economic burden of cancer incidence resulting from past occupational exposure to selected carcinogenic agents in the EU-28, so as to assist the trade unions in refining their strategy and actions to tackle occupational cancer.

The cost of work-related cancers is immense: between €270 and €610 billion each year, which represents 1.8% to 4.1% of the gross domestic product of the European Union.

Source: ETUI, December 2017



Management of workplace exposures to hazardous chemicals

In a continuation of its long drawn out approach to reviewing the regulatory framework for workplace exposure standards for chemicals in Australia, Safework Australia engaged PricewaterhouseCoopers Consulting Australia (PWC) to “investigate the impacts of the current regulatory framework on businesses.”

PWC asked duty holders who use, handle, store, generate or dispose of hazardous chemicals to complete a survey. The results of the survey have yet to be released.

By contrast, in New Zealand, new regulations surrounding the safe management of hazardous substances came into effect in December 2017.

A hazardous substance is any product or chemical that has explosive, flammable, oxidising, toxic or corrosive properties.

Around one in three New Zealand workplaces use, manufacture, handle or store these substances.

This includes factories, farmers and growers, as well as printers, collision repairers, hairdressers and retailers. They are in commonly used products such as fuels and LPG, solvents, cleaning solutions and agrichemicals.

These products also pose real risks to the people working with or around them. The harm from inhaling toxic vapours or having contact with some substances is often unseen. **Workers may be unaware they are being exposed, and the effects of exposure may not be seen for many years.**

Hazardous substances are a major contributor to the estimated 600–900 deaths and 30,000 cases of serious ill health from work-related disease each year in New Zealand. This is in addition to the fatalities and immediate harm through accidents, such as fires and explosions, and unsafe use.

The Health and Safety at Work (Hazardous Substances) Regulations 2017 are available from <http://www.legislation.govt.nz/regulation/public/2017/0131/latest/DLM7309401.html>

Source: SafetySolutions, 24 November 2017

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Canada moving finally to redress their asbestos legacy

After decades supporting resistance to asbestos bans, the Canadian government now acknowledges that all forms of asbestos fibres, if inhaled, can cause cancer and other diseases.

The Government estimates asbestos was responsible for approximately 1,900 lung cancer cases and 430 mesothelioma cases in Canada in 2011. A single case of lung cancer or mesothelioma costs Canada’s health system more than CAN\$1 million.

Fe de Leon, a researcher at the Canadian Environmental Law Association (CELA), said: “This regulation provides some certainty that asbestos exposure of Canadian workers will reduce over time starting in 2019. However, the government should take this opportunity to build on its strategy to address potential exposure from legacy asbestos.”

One can only speculate on the costs of compensating sufferers of asbestos related diseases in Canada over the next 30 or more years as the latent cases manifest themselves.

The occupational health and safety officer with the Union CAUT commented: “It will require the collective efforts by key government departments to address very difficult issues including tracking and recording non-federal buildings containing asbestos and those people who have been exposed to asbestos.”

Source: Cancer Hazards, 12 January 2018



Every weekday afternoon in Asbest, Russia, miners set explosions in an asbestos strip mine, sending out clouds of carcinogenic dust. Credit Olga Kravets for The New York Times

RUSSIA COERCES SRI LANKA TO REVERSE ASBESTOS BAN

As the first phase of Sri Lanka's chrysotile asbestos ban was about to take effect, top chrysotile exporter Russia blocked Sri Lankan tea imports to the country, leading international trade unions and health campaigners to condemn the 'economic blackmail'.

On 18 December 2017, Russia abruptly halted imports of tea from Sri Lanka, a serious blow to the Sri Lankan economy.

Two days later the Sri Lankan government announced its decision to defer banning asbestos imports from Russia. Sri Lanka had previously announced a phasing out of asbestos starting 1 January 2018, with a full ban planned by 2024.

Kate Lee, executive director of union aid organisation APHEDA said: "We are dismayed that such blatant economic blackmail will mean more asbestos related deaths in Sri Lanka in coming years that would not have occurred had the phase out occurred in January as scheduled."

She added: "Already estimates from global scientists suggest hundreds of deaths from exposure to chrysotile asbestos in Sri Lanka in 2016 alone. With recent high consumption of asbestos and the increased exposure of the population this is certain to rise sharply in coming decades."

A 12-member Sri-Lankan delegation was scheduled to visit Russia on December 24 to discuss the quality of asbestos imported into Sri Lanka from Russia, advised Sri Lankan Ambassador to Russia Dr. Saman Weerasing.

"The asbestos imported into Sri Lanka is used by the Russians as well. Their opinion is that there was no health issues associated with their products," he said.

The ambassador said the team would visit the asbestos factories in Russia and test the quality of the asbestos produced there.

Source: *CancerHazards*, 10 January 2018

CANCERS

WORLD'S SMALLEST WEARABLE DEVICE MEASURES UV EXPOSURE

The device, as light as a raindrop and smaller in circumference than an M&M, is powered by the sun and contains the world's most sophisticated and accurate UV dosimeter. It was unveiled in January at the 2018 Consumer Electronics Show in Las Vegas and will be called UV Sense.

"We think it provides the most convenient, most accurate way for people to measure sun exposure in a quantitative manner," said Northwestern engineer John A. Rogers. "The broader goal is to provide a technology platform that can save lives and reduce skin cancers by allowing individuals, on a personalised level, to modulate their exposure to the sun."

UV Sense has no moving parts, no battery, is waterproof and can be attached to almost any part of the body or clothing, where it continuously measures UV exposure in a unique accumulation mode.

The wearable UV sensor can stick on your nail. It is NFC-enabled so you can scan it with your phone to retrieve the UV data it's collected. The UV Sense is meant to help people track how much time they spend in the sun without being overbearing. The nail sticker is a statement, but not a massive one.

The UV Sense will determine how long you've been outside, and once synced with your app, provides a score that says whether you're spending too much time in the sun.

The sensor comes with replaceable adhesives, so you can re-wear it, although you can snap it onto other items, like a watch or sunglasses.

Overexposure to UV rays is a top health and beauty concern of consumers worldwide.

Source: Science Daily 10 January 2018





ALBERTA IS EXPANDING BENEFITS FOR FIREFIGHTERS FACING HEIGHTENED CANCER RISKS ON THE JOB

Firefighters who get ovarian and cervical cancer will now receive workers' compensation benefits and supports, making Alberta the leader in Canada on that front.

The minimum exposure period will be 10 years for those cancers.

The province is also reducing the minimum exposure period to 10 years from 20 for testicular cancers, putting Alberta in line with other jurisdictions.

The head of the Alberta Firefighters Association, Craig Macdonald, said the biggest danger facing modern firefighters is long-term effects of exposure to burning of chemicals and plastics.

Once again we observe the focus on providing compensation after long term exposure and little attempt to address the frequency and level of exposures.

Preventive occupational health practice is being ignored in favour of compensation which seldom - if ever - allows the continuation of the individual healthy life.

"A century ago, typically homes were furnished with wood, steel and glass," says Macdonald. "Today, it's full of plastics, foams, and coatings which create a toxic soup of carcinogens when they burn. Cancer is the leading cause of death in our profession."

Eight out of 10 Alberta firefighters are volunteers and almost one in 10 is female.

Source: Cos Mag, 24 January 2018



France: work-related respiratory tract cancers cost the country at least EUR 1 billion per year

A team of researchers made up of occupational health economists and an epidemiologist has found that respiratory cancers attributable to work-related risk factors cost France between EUR 960 million and EUR 1.9 billion in 2010.

The researchers incorporated into their calculations not only the direct costs (linked to hospital care, medication and outpatient treatment), but also the indirect costs (production losses) incurred as a result of respiratory cancers (lung, laryngeal, nasal and sinus, mesothelioma) attributable to workplace exposure to seven carcinogens - asbestos, chromium, diesel engine exhaust emissions, polycyclic aromatic hydrocarbons, working as a painter, crystalline silica, wood and leather dusts.

Lung cancer alone accounts for around 85% of these costs.

In November 2017, the European Trade Union Institute (ETUI) estimated the annual cost to the European Union of work-related cancers (respiratory and others) at between EUR 270 and 610 billion, or in other words between 1.8% and 4.1% of the EU's GDP.

Source: ETUI, 8 December 2017

Triclosan among 24 ingredients banned by the US Food and Drug Administration

At the end of 2017, the US Food and Drug Administration (FDA) banned 24 ingredients commonly used in over-the-counter (OTC) topical antiseptics. These active ingredients – which are now no longer generally recognised as safe and effective – include **triclosan**, an antibacterial and antifungal agent found in many consumer and health care products.

Products covered by this rule include hand washes, rubs, and scrubs used by health care professionals (both in and out of hospital), as well as patient antiseptic skin cleansers for both pre-operative and pre-injection purposes.

Triclosan – which was developed in the 1960s – is an ingredient added to many consumer and health care products intended to reduce or prevent bacterial contamination. It is used in antibacterial soaps and body washes, toothpastes, and some cosmetics, as well as clothing, kitchenware, furniture and toys.

Source: *Environmental Expert*, 11 February 2018



Occupational Health Society of Australia (WA)



Membership of the Society is open to all those interested in occupational health and safety.

\$50 ordinary membership

\$20 student membership.

Simply email safety@marcsta.com with your details.

Incorporated in 1978, the Occupational Health Society of Australia (WA Branch) is a non-profit association which provides a forum for the wide range of disciplines engaged in the occupational health profession in Western Australia.

The aims of the Society are:

- to develop effective occupational health practice within Western Australia
- to encourage awareness by individuals, organisations and other bodies, of the role of occupational health
- to provide a forum for professional contact between persons interested in, and working in, occupational health
- to express an independent, professional viewpoint on all aspects of occupational health considered desirable in the public interest
- to seek the improvement or an extension of the existing legislation for the promotion of safety and health at work in order to ensure uniform principles are applied in all occupational activities.

Visit www.ohswa.marcsta.com for more information.



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