

the monitor

keeping all those with an interest in OHS informed of developments in workplace health and safety nationally and internationally



Issue 5 Vol 18 November 2014



NIOSH recommends new approach by OHS professionals to advance total worker health

In a keynote address to the 1st International Symposium to Advance Total Worker Health, NIOSH Director John Howard, M.D. stated that the occupational health profession must make a major change to the way it has approached worker safety and health. An abridged version of his address follows.

“Historically, preventing work-related injury and illness, rather than worker injury or illness, has been our focus. Workplace health has been subdivided into the world of work and the world of life, and occupational safety and health professionals have confined themselves, or have been confined by others, to just the world of work. Yet, we have seen that hazards and habits experienced before and after work can affect our workability.

My view is that this division of responsibility has not been good for workplace health; nor has it been good for the profession of occupational safety and health, whose aim should be broader, larger, and more contributory for all our benefit.

We believe that health protection activities and health promotion programs can be successfully co-ordinated and combined for greater effectiveness. It means continuing to prevent injury and illness associated with the work environment and the conditions of work while recognizing that, in the 21st century, working life and private life are increasingly interconnected.”

Source: NIOSH eNews, Vol 12, #7, Nov 2014

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Merry Christmas
from the Management Committee

WELCOME

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Legislative/regulatory matters

Progress with the development of legislation

General OHS legislation – the Work Health and Safety Bill

WorkSafe WA has released a draft Bill inviting public comment which must be received by 31 January 2015.

This timing is incomprehensible given that the December-January period is traditionally holiday time and the content of the Bill requires careful perusal and understanding prior to providing comment.

This is likely to be complicated by the findings and recommendations of the COAG review of the model Work Health and Safety Laws due by the end of the year.

A preliminary perusal of the draft Bill has identified a number of health issues on which clarification will be sought. Occupational Health Society of Australia (WA) members will be circulated, seeking comment which will be considered by the Committee late in January.

The Society will then lodge a submission on the health related aspects of the draft legislation and this will be available on the Society website (www.ohswa.marcsta.com) when lodged.

Work Health and Safety (Resources) Bill

The drafting instructions for the Work Health and Safety (Resources) Bill are being finalised and a consultant appointed to identify the preferred option for consolidating the safety legislation for mines, petroleum and major hazard facilities.

Western Australian stakeholders are being asked to comment on a regulation impact statement (RIS) outlining five options for “modernising” the State’s safety laws for mines, petroleum and major hazard facilities (MHFs). They are:

1. Introduce a unified act for the three sectors based on the “best elements” of the National Mine Safety Framework and the national model WHS Act;
2. Consolidate the petroleum and MHF safety acts while retaining a separate but new mines safety act;
3. Introduce individual acts for the mining and petroleum sectors while retaining the two acts that currently house safety provisions for MHFs;
4. Introduce a consolidated act for the mining and petroleum sectors while retaining the current arrangements for MHFs; or
5. Maintain the status quo. That is, retain a separate (albeit new) act for the mining sector, while continuing to regulate the petroleum sector and MHFs under three and two acts respectively.

Comments are to be submitted by 19 December 2014.

It is expected that the consultation process will be completed by 31 January 2015.

SAFETY



Fatality attracts significant penalty

The Federal Court decision to fine John Holland entities a total of \$360,000 following a fatal incident at the Perth City Link Rail Project in December 2011 has been welcomed by Comcare.

The Court found that:

John Holland failed to take all reasonably practical steps to protect the health and safety of its employees and contractors and to ensure that manufactured plant was safe for employees.

The maximum penalty available to the Federal Court cumulatively totalled \$484,000.

Source: Comcare Media Release 11/11/14

Rio Tinto facing safety concern strikes in Indonesia

The Grasberg mine in Indonesia will experience a one-month strike in November following the death of five miners at the copper-gold mine in September, bringing the total number of workers killed at the mine over the last two years to 38.

The union is calling on Rio Tinto to speak publicly about what it will do to end the string of deaths.

Source: OHS Reps SafetyNet 301, 13 Nov 2014

Roofing company fined after 2.5 metre fall

Falls from heights continue to be a major cause of death and serious injury with a failure to recognise that even those falls from three metres or less can have serious consequences.

A roofing company in New Zealand has been fined \$45,000 and ordered to pay \$2,000 reparation after one of its workers fell 2.5 metres from a roof while safety gear sat unused on site.

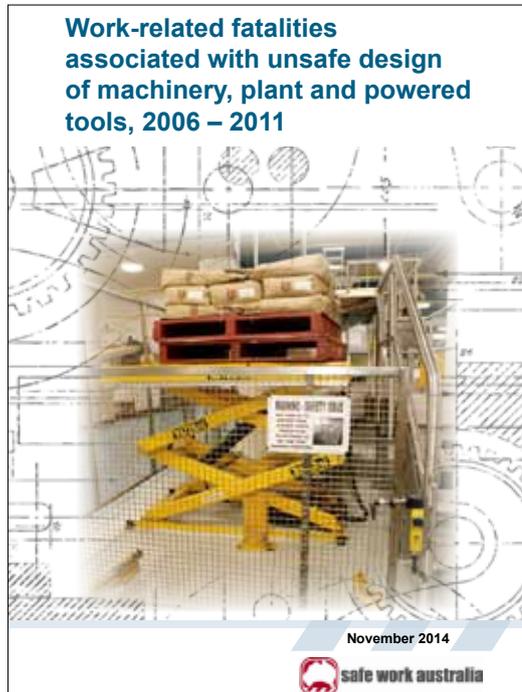
Although the worker was wearing a safety harness it was not attached to an anchor point, and edge protection delivered to the site wasn't being used.

The employee was hospitalised for two days with a severed tendon and cuts to his arms and was off work for two and a half months.

Source: OHS Reps Newsletter

Poor guarding - biggest killer in design-related fatalities

A SafeWork Australia report *Work Related Fatalities Associated with Unsafe Design of Machinery Plant and Powered Tools* has found that there were 639 work-related fatalities involving machinery, plant and powered tools in Australia between 2006 and 2011.



More than one third were the result of inadequate guarding and a lack of rollover protection.

Source: OHS Alert, 11/11/14

Safety alert – heavy vehicles and trailers

Workplace Health and Safety (Qld) has issued a safety alert after a number of incidents of heavy vehicles or trailers fatally crushing workers. In many cases, the vehicle had not been correctly immobilised.

Some of the contributing factors to these incidents include:

- workers being under a heavy vehicle or trailer, or in its path
- unsafe systems of work being applied, such as poor separation of traffic from pedestrian areas
- failing to immobilise
- the handbrake of the vehicle not applied
- the wheels of the heavy vehicle or trailer not immobilised (e.g. chocked)
- components of the heavy vehicle or trailer not restrained or adequately supported
- brakes malfunctioning
- not conducting a risk assessment before working on the vehicle.

Four workers killed at DuPont plant Texas

On 15th November 2014, DuPont, who are an acknowledged leader in safety, experienced a chemical leak at its Texas plant which killed four workers and injured a fifth.

The four plant workers died after methyl mercaptan exposure, a rare outcome for the common, yet dangerous chemical used to give natural gas its rotten-egg smell and as a feedstock for insecticides and fungicides.

Over the past five years, the facility has received dozens of citations and been ordered six times to pay fines with a seventh penalty pending.

An eight member team from the Chemical Safety Board arrived on 16 November to launch its investigation into the leak.

Source: OHS SafetyNet 230



Senate Inquiry into FLNG projects safety in Australian waters

The Economics Standing Committee is looking at the measures being taken to ensure the health and safety of workers on floating liquefied natural gas projects particularly in relation to extreme weather events and emergency evacuation procedures.

Union research also identified safety risks related to hazardous process fluids and harsh marine environments as well as the limited space available to workers with its consequent risks to health.

Source: Processing Magazine 17 Nov 2014



Preparation of graves for mining disaster victims, Soma, Turkey.

Turkish mining disaster – executives facing life in prison

Turkish prosecutors are seeking life jail terms for eight mining executives following the deaths of 301 workers in May. Twenty-nine other employees have been charged with manslaughter.

Investigators' reports found serious safety violations at the Soma Holding coal mine including a shortage of carbon monoxide detectors, ceilings made of wood instead of metal and a lack of high-quality gas masks.

Source: OHS Repts SafetyNet 300, 6 Nov 2014

UK workplace injuries on the rise

The UK HSE statistics are showing that the number of injured/ill workers is rising, reversing a long-term downward trend. Although the number of immediate fatalities remains low, there has not been a fall in the number of disease-related deaths.

The TUC General Secretary, Frances O'Grady, says that the government's decision to reduce the number of workplace inspections is allowing more rogue bosses to get away with poor safety. Further, it is both a human tragedy and a false economy to continue with two million people living with an illness caused by work, and 600,000 new workplace injuries a year.

Source: OHS Repts SafetyNet 301, 13 Nov 2014

New USA injury reporting requirements

From 1 January 2015, employers will be required to report to OSHA all work-related fatalities within eight hours and all in-patient hospitalisations, amputations and losses of an eye within 24 hours of finding out about the incident.

OSHA says that the updated reporting requirements are not simply paperwork, but have a life-saving purpose: they will enable employers and workers to prevent future injuries by identifying and eliminating the most serious workplace hazards.

Source: OSHA Quicktakes, 17/11/14

Australia's most dangerous jobs (2012)

The Finder press release of 20 October 2014 provides a useful table of Australia's most dangerous jobs.



Industry	No. of deaths	No. of serious injuries	No. of Australians working in each industry	Proportion of workers injured
Transport, postal and warehousing	65	8,450	600,600	1.4%
Agriculture, forestry and fishing	53	3,815	301,100	1.3%
Construction	30	12,485	995,800	1.3%
Manufacturing	18	16,670	953,700	1.8%
Public/govt administration, safety and defence	13	4,330	1.1 million	0.4%
Mining	7	2,670	262,400	1.0%
Retail trade	6	11,200	1.2 million	1.0%
Professional, scientific and technical services	6	2,100	899,100	0.2%
Wholesale trade	5	5,310	416,300	1.3%
Electricity, gas, water and waste management	5	530	140,500	0.4%



Source: Finder.com.au

Slack pre-start check results in sacking

Two workers who were sacked for failing to identify a seriously damaged hoist rope during pre-start checks of a tower crane have been awarded compensation, even though their conduct could have had catastrophic safety implications.

The workers claimed unfair dismissal, arguing that their conduct couldn't be considered wilful misconduct, and they had performed proper daily pre-start checks, which didn't identify the deterioration of the hoist rope. They argued the investigation failed to establish where and when the rope was damaged.

The Fair Work Commission found that, while the employer had a valid reason to dismiss the workers, its investigation process was unjust.

Source: OHS Alert, 15 October 2014



AIR POLLUTION

Household air pollution – a major cause of ill health and early death

Household air pollution, caused by the use of plant-based or coal fuel for cooking, heating and lighting is putting almost three billion people worldwide at risk of ill health and early death according to a report in *The Lancet Respiratory Medical Journal*.

The study leaders, Professor Stephen Gordon from the Liverpool School of Tropical Medicine, and Professor William Martin from the Ohio State University, examined evidence for the effects of household air pollution on health.

They concluded that an estimated 600-800 million families worldwide are at increased risk of illnesses such as respiratory tract infections, pneumonia, COPD, asthma and lung cancer.

Professor Martin said that “all of the evidence we examined points to a serious need for improved commitment to tackling the problem of household air pollution. There are many gaps in our knowledge of how to effectively measure and prevent household air pollution, but this problem cannot be solved until the global community recognises the scale of this problem and commits to co-ordinated and concerted action.”

Source: *Chemwatch*, 14/10/14. Image: *The Lancet*



Future air quality could put people and plants at risk

By combining projections of climate change, emissions reductions and changes in land use across the USA, an international research team estimate that by 2050, cumulative exposure to ozone during the summer will be high enough to damage vegetation.

Researcher Dr Maria Val Martin from the University of Sheffield says “modelling future air quality is very complex, because so many factors need to be taken into account at both the global and local scale. Our findings show that the emission reductions we’re expecting to achieve won’t guarantee air quality on their own, as they will be offset by changes in climate and land use and by an increase in wildfires.”

The research looked at air quality under two scenarios set out by the Intergovernmental Panel on Climate Change: one which envisages greenhouse gas emissions peaking in 2040 and then falling, the other in which emissions continue to rise until 2100. The team combined data on climate change, land use and emissions to create a picture of air quality across the USA in 2050.

The model showed that if greenhouse gas emissions peak in 2040 then by 2050 surface ozone will remain below levels set to safeguard human health, despite increases in ozone caused by higher temperatures and changes in agriculture and forestation. If emissions continue to rise until 2100, then some areas of the USA will see surface ozone levels above the safe limit set for human health.

Source: *ScienceDaily*, 6 Nov 2014



China's smog is so bad it's affecting fashion trends

A new fashion trend hit the runways at China Fashion Week in Beijing in October, and it was well-timed considering the air quality outside. Models showed off a variety of designer respiratory face masks as they strutted down the catwalk, part of the Qiaodan Yin Peng Sports Wear Collection. High fashion face masks were also on display at this year's Paris Fashion Week, with Chinese designer Masha Ma adorning models with Swarovski crystal-studded masks to go with her urban-chic collection.

The effort to make pollution protection masks, an unfortunate daily accessory for millions of Chinese, more attractive isn't limited to the world of high fashion either. In March, cosmetics company Max Factor sponsored a selfie photo contest for consumers of its Sina Weibo makeup to show off their eye makeup while wearing a smog mask.

China's notoriously bad air pollution is more than just a fashion inconvenience; it's an extremely serious public health concern. Participants in October's Beijing Marathon wore masks and wiped off their skin with water-soaked sponges as pollution levels reached 12 times the recommended daily allowance of smog, sparking criticism of organisers' failure to cancel the event.

For residents of cities like Beijing, the health risk associated with regular exposure to dangerous levels of air pollution is much more severe. A 2013 report by the World Health Organization's Global Burden of Disease project linked more than 1.2 million premature deaths in China to PM2.5 pollution (fine particles like soot, mostly resulting from fossil fuel combustion). That accounts for 15 percent of the total deaths in China during 2010 and 40 percent of global air pollution-related deaths.

Source: ThinkProgress Climate Change, 1/11/14. Image: copyright Zacharie Scheurer



Trash burning worldwide significantly worsens air pollution

Unregulated trash burning around the globe is pumping far more pollution into the atmosphere than shown by official records.

A new study led by the US National Center for Atmospheric Research estimates that more than 40 per cent of the world's garbage is burned in such fires, emitting gases and particulates that can substantially affect human health and climate change.

Released pollutants are linked to serious medical issues include particulates, carbon monoxide and mercury.

Air pollution across much of the globe is significantly underestimated because no-one is tracking open-fire burning of trash said the lead author of the study, Christine Wiedinmyer.

Trash burning is a global phenomenon but is most prevalent in developing countries where there are fewer disposal facilities.

Wiedinmyer said the next step will be to track the pollutants to determine where they are having the greatest impacts.

Source: Chemwatch, 8/10/14

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Air quality and childhood ADHD

Researchers from Columbia University and elsewhere have found that certain pollutants common to urban areas could be harming the brains of unborn children.

The research team monitored 233 non-smoking women living in Harlem, Washington Heights and the Bronx.

The women and their household pollutant levels were monitored from the time of pregnancy until their children reached the age of nine. Those living in highly polluted areas were five times as likely to give birth to a child that developed ADHD during the course of the study (factors controlled included size of child, ethnicity, the mother's education levels, maternal ADHD symptoms and quality of home caretaking environment).

The report's lead author said the study suggests that exposure to polycyclic aromatic hydrocarbons (PAH) encountered in New York City air may play a role in childhood ADHD.

Source: CityLab, S Sturgis, 6/11/14

Air pollution slows growth of children's lungs

The preliminary analysis of a six-year long study done in Britain indicates that children exposed to nitrogen dioxide and particulate matter have slower lung growth.

Professor Frank Kelly, an environmental health expert at King's College, London, said a child could lose as much as 165ml of lung volume under high level exposure to nitrogen dioxide.

He said that the impact of a smaller lung was lifelong and could "contribute to the development of chronic lung diseases such as asthma."

Studies in Hong Kong have had similar results.

Source: South China Morning Post, 6/10/14



Air pollution damaging the health of children in India

A survey in May by the WHO ranked Delhi as the world's most polluted city, under assault from its growing vehicle population and rising emissions from coal based thermal power plants in the surrounding areas.

The outcome according to the Central Pollution Control Board which oversees pollution control in India, is that 43.5 per cent of children in the capital have reduced lung function and breathing problems.

Particulate matter measuring less than 2.5 microns in size can cause lung cancer or heart attacks and studies have shown there is no safe exposure level.

On 12 October, a Sunday between 3pm and 4pm New Delhi had a PM2.5 reading of 206 (the Control Board terms "safe" readings up to 60 $\mu\text{g} / \text{m}^3$).

Source: India Times, M Rajshekhar, 14/10/14. Image: Sanjeev Verma



HEALTH - PHYSICAL



Bhopal revisited - 30 years on from Bhopal tragedy, Dow Chemical shareholders demand justice

On the eve of the 30th anniversary of the Bhopal gas leak, shareholders in Dow Chemical are to table two resolutions calling for the company's management to accept responsibility for the worst industrial disaster in history, to fully compensate victims and to pay for a full-scale clean-up of the still-contaminated area.

Tens of thousands of people died, more than half a million were injured and thousands more were left with debilitating illness after methyl isocyanate (MIC) leaked and spread through the shanty towns around the Union Carbide India Limited pesticide plant in Bhopal City as night fell on 2 December 1984.

Dow, which completed a takeover of Union Carbide Corporation (UCC) in 2001, claims it has no corporate responsibility to face the charges open in the Indian court and has consistently failed to appear at hearings, despite repeat summonses.

But shareholders have told International Business Times that the reputational damages the company is facing are excluding it from a burgeoning Indian chemical market that is growing by 17 per cent per year and having a serious impact on Dow Chemical's business.

Source: International Business Times, 19 Nov 2014

Over a third of all Australian deaths caused by cardiovascular disease, diabetes and chronic kidney disease

A report, *Cardiovascular Disease, Diabetes and Chronic Kidney Disease – Australian Facts: Mortality*, released in October by the Australian Institute of Health and Welfare, reveals that those three diseases were the underlying cause of 36% of all deaths in 2011.

Since 1981 cardiovascular disease death rates have fallen substantially while death rates for diabetes and chronic kidney disease remained relatively unchanged.

Source: AIHW Media Release 24/10/14

Follow-up on concerns about triclosan

The September edition of the Monitor reported on concerns with the use of anti-bacterial soap containing triclosan.

Subsequently, a study conducted by researchers at the University of California has found that mice fed food containing triclosan daily for six months suffered liver damage and were more susceptible to liver tumours induced by other carcinogenic chemicals.

The study suggested that triclosan is damaging the liver by interfering with a protein called constitutive androstane receptor, which helps to detoxify the blood. To compensate for this interference, the liver over-produces cells, causing fibrosis and cancer, the scientists said.

The US Food and Drug Administration, which has conducted an investigation into the possible health effects of triclosan, says that it does not have enough safety evidence to recommend any change to its use in consumer products.

Source: *The Independent*, 17 Nov 2014

Eating Granny Smith apples can prevent obesity



Scientists from Washington State University, USA, have discovered that non-digestible compounds found in apples can help fight disorders associated with obesity – and that Granny Smiths contain the most.

The research revealed that the sour, green Granny Smith apples promote the growth of good bacteria in the colon, due to their high content of non-digestible compounds, including dietary fibre and polyphenols, and a low amount of available carbohydrates. This means that despite being chewed and subjected to stomach enzymes, these compounds are still intact when they reach the colon, where they are fermented by bacteria to benefit the growth of friendly bacteria colonies.

By re-establishing a healthy balance of gut bacteria, people can help to stabilise metabolic processes that can lead to inflammation and prevent the disorders associated with obesity.

Source: *Chemwatch*, 3/11/14

PSYCHOLOGICAL HEALTH

Employers encouraged to appoint mental health officers

Mental Health Commissioner, Tim Marney, has challenged companies to address mental health issues not only to assist their employees but also to increase their productivity.

He said that in the next two to five years he would like it to be normal at any workplace to see on the notice board the name of the first aid officer and then next to that, the name of the mental health first aid officer.



First Aid Officer

Mental Health First Aid Officer

He added that it also made business sense to address these matters as someone suffering a mental health illness was likely to take three to four days off work a month.

Source: WA Today, A Orr. 10/10/14

Consequences of workplace violence

Exposure to violence can have serious consequences for health sector employees, say researchers from the University of Montreal.

They point out that the sector is particularly prone to violence since health personnel are 16 times more likely to be victims or witnesses to acts of violence compared to other public service personnel. Most of these acts are committed by patients or their relatives and can cause many adverse effects.

Researchers selected 68 studies to review which revealed the following types of consequences that may result from acts of workplace violence:

- physical, psychological or emotional consequences
- consequences related to functioning at work (e.g. sick leave)
- consequences of patient relationships and quality of care provided to patients
- social consequences (e.g. family life, sense of security)
- financial consequences

Researchers concluded that the results of the review demonstrated that the consequences of workplace violence are not only profound but also multiple.

Source: HealthCanal, 15/10/11



New report on how European workplaces are managing stress

A European report released in October by the European Agency for Safety and Health at Work (EU-OSHA) shows that a quarter of workers report feeling stressed at work all or most of the time, while a similar proportion state that work affects their health negatively.

Nearly 80% of managers express a concern about work-related stress, and nearly one in five consider violence and harassment to be of major concern. Despite these concerns, less than one third have procedures in place to deal with such risks.

Interventions taken at company level to tackle psychological risks are most successful if accompanied by active worker involvement.

Source: ETUI News, 30 October 2014

Stress – the UK's top health and safety concern

Advance findings from a survey of union health and safety representatives published in October indicate that stress is the top concern in UK workplaces.

Over two-thirds of safety representatives said that stress and the effect it has on their colleagues is one of the main concerns they have to deal with at work.

The survey suggests that stress is a particular concern in the public services that have been most affected by austerity.

Source: TUC Release 20 Oct 2014

Victorian stress claims – increasing drastically

Job-related stress in Victoria is surging with 58 compensation claims for psychological injuries being approved each week.

For the first time, mental disorders have overtaken wounds to become the state's third-leading workplace injury.

The annual number of claims has resulted in the annual compensation paid out increasing in five years by 45 per cent to \$273 million.

Mental health group Beyond Blue attributes the drastic rise in work-related mental stress claims to reduced stigma about reporting, heavier workloads and increasing job insecurity.

Source: The Age, N. Toscano, 21 Oct 2014

YouTube as peer support for severe mental illness

People with severe mental illness such as schizophrenia, bipolar disorder or schizoaffective disorder use a popular social media website like YouTube to provide and receive naturally occurring peer support, researchers report in the journal PLOS ONE.

Lead author, John Naslund, said that "what we found most surprising was that people with severe mental illness were so open about their illness experiences on a public social media website like YouTube. We saw that people with severe mental illness did not appear to be concerned about the risks of openly sharing their personal illness experiences because they really wanted to help others with similar mental problems."

They found that people with mental illness used YouTube to feel less alone and to find hope, to support and defend each other, and to share personal stories and strategies for coping with day-to-day challenges. They also sought to learn from the experiences of others about using medications and seeking mental health care.

Source: ScienceDaily 17 October 2014



The effects of sunshine on suicide incidence

Researchers at Griffith University have found that the duration of daily sunshine was significantly correlated with suicide frequency independent of season, but effect sizes were low. Their data supports the hypothesis that sunshine on the day of the suicide and up to 10 days prior to suicide may facilitate suicide. More daily sunshine 14-60 days previously is associated with low rates of suicide. They say that the study also suggests that sunshine during this period may protect against suicide.

Source: Australian Institute for Suicide Research and Prevention, News 7 Oct 2014

In another study of more than 69,000 suicides spanning 40 years, Australian researchers found two distinct correlations between sun-filled days and suicide rates. In the short-term, sunny days were linked with an increase in suicide, but after two weeks of sunshine, the number of suicides dropped.

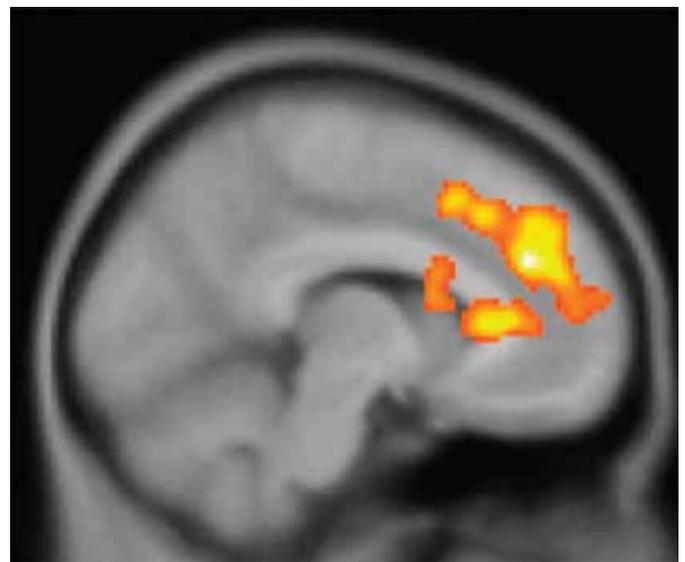
Source: MedicineNet, 12 Sep 2014

Rapid agent restores pleasure-seeking for treatment-resistant depressed patients

A drug being studied as a fast-acting mood-lifter restored pleasure-seeking behaviour independent of, and ahead of, its other anti-depressant effects in a US National Institutes of Health trial. Within 40 minutes after a single infusion of ketamine, treatment-resistant depressed bipolar disorder patients experienced a reversal of a key symptom – loss of pleasurable activities – which lasted up to 14 days.

Brain scans traced the agent's action to boosted activity in the right hemisphere of the brain.

Carlos Zarate, MD of the National Institute of Mental Health, said that the "findings help to deconstruct what has traditionally been lumped together as depression. We break out a component that responds uniquely to a treatment that works through different brain systems than conventional anti-depressants – and link that response to different circuitry than other depression symptoms."



PET scans revealed that ketamine rapidly restored bipolar depressed patients' ability to anticipate pleasurable experiences by boosting activity in the dorsal anterior cingulate cortex (yellow) and related circuitry. Picture shows PET scan data superimposed on anatomical MRI.

Source: ScienceDaily, 20 Oct 2014

SLEEP/FATIGUE

Not enough sleep results in increased time off work

Getting enough sleep each night may mean you're less likely to take time off work due to illness. So suggests a new study of more than 3,700 people in Finland, aged between 30 and 64, who were followed for an average of seven years.

Those who slept less than six hours, or more than nine hours a night, were much more likely to have extended absences from work due to illness, the investigators found.

People with the lowest risk for taking time off from work due to sickness were those who slept between seven and eight hours a night.

The team also found that insomnia-related symptoms – waking early in the morning, feeling more tired than others and using sleeping pills – were all linked with a significant increase in time off from work due to illness.

The researchers calculated that the direct costs of sickness-related work absences to the Finnish Government and businesses could be cut by 28 per cent if employees' sleep problems could be solved.

Source: *Medicinenet*, 14/9/14

Shift workers should skip high-iron foods at night

In a new study in *Diabetes online*, researchers at the University of Utah have shown that dietary iron plays an important role in the circadian clock of the liver.

The lead author, Judith A. Simcox, says that "discovering a factor, such as iron, that sets the circadian rhythm of the liver may have broad implications for people who do shift work."

Workers on the graveyard shift may therefore be better off not eating high-iron foods at night so they don't disrupt the circadian clock in their livers.

More research is needed to see how the results of the study could affect dietary recommendations for everyone and shift workers in particular.

Source: *Science Daily*, 31 October 2014

Shift work linked to greater diabetes risk

In a new analysis of previous studies, researchers discovered that people who work night shifts, or constantly changed shifts, are more likely to develop type 2 diabetes compared to non-shift workers. The risk was highest for men and people who work rotating shifts, but the reasons for those differences remain unclear, researchers say.

The studies analysed included a total of 222,652 participants and 14,595 people with diabetes and were published between 1983 and 2013.

Based on their analysis, the risk of diabetes was increased by nine per cent overall for shift workers, compared to people who had never been exposed to shift work.

Source: *Chemwatch*, 8/10/14

Shift work linked to brain power, memory decline

People who work shifts for 10 years or more may suffer loss of memory and brainpower, according to a study that also warns of safety concerns in high-risk jobs.

The research is the latest to highlight the dangers of shift work, which disrupts the body's internal clock and has previously been linked to health problems like ulcers, cardiovascular disease and some cancers. Yet, little has been known about its potential impact on brain function.

Researchers tested more than 3,000 current or retired workers in a variety of sectors in Southern France in 1996, 2001 and 2006 for long and short term memory, processing speed and overall cognitive abilities.

About half of the trial subjects, aged either 32, 42, 52 or 62 when they were first tested, had worked shifts – classified as night work, or shifts that alternated between morning, afternoon and night.

Comparing the change in test results over time, and between the two groups, the researchers found an association between shift work and "chronic cognitive impairment".

Researchers say that the findings raised "potentially important safety consequences not only for the individuals concerned, but also for society, pointing to "the increased number of jobs in high hazard situations that are performed at night."

Source: *MedicineNet*, 11/11/14

HAZARDOUS SUBSTANCES

OSHA launches national dialogue on hazardous chemicals exposures and permissible exposure limits in the workplace

The US Department of Labor's Occupational Safety and Health Administration (OSHA) has launched a national dialogue with stakeholders on ways to prevent work-related illness caused by exposure to hazardous substances.

The first stage of the dialogue is a request for information on the management of hazardous chemical exposures in the workplaces and strategies for updating permissible exposure limits.

"Many of our chemical exposure standards are dangerously out of date and do not adequately protect workers" said Dr David Michaels, the Assistant Secretary of Labour for Occupational Health and Safety.

"While we will continue to work on updating our workplace exposure limits, we are asking public health experts, chemical manufacturers, employers, unions and others committed to preventing workplace illnesses to help us identify new approaches to address chemical hazards."

The goal of the public dialogue is to give stakeholders a forum to develop innovative, effective approaches to improve the health of workers in the USA.

Source: OSHA News Release 14-1913-NAT, 10/09/2014

Pulmonary fibrosis asbestos link found

Many cases of a common lung disease that were assumed to be of no known cause are, in fact, the result of exposure to asbestos, UK scientists believe. Researchers from the Imperial College London found a correlation between death rates in England and Wales from the known asbestos-related conditions asbestosis and mesothelioma and "idiopathic pulmonary fibrosis".

According to researchers asbestosis is the name given to the lung fibrosis developed by people with a known history of exposure to asbestos. Idiopathic pulmonary fibrosis (IPF) is an identical condition but without the asbestos association being made.

Their analysis of UK Office of National Statistics' data revealed national and regional correlations between the three diseases.

They also established high rates of IPF deaths in particular regions in the North West and South East of England with a history of shipyard work and potential exposure to asbestos dust.

The lead researcher, Dr Carl Reynolds, said that the findings are consistent with the hypothesis that a proportion of IPF cases are likely to be caused by unknown exposure to asbestos.

Source: International Trade Union Confederation Media Release 18/09/14



BHP appeals against \$2.2m asbestos payout

BHP Billiton Ltd has filed an appeal against the record mesothelioma award by the NSW Diseases Tribunal for the negligent exposure of a former employee at its Newcastle Steelworks, to asbestos dust.

The senior asbestos lawyer who acted for the employee said that she believed the appeal against the decision was “baseless” and unfair on the dying man and his family.

Source: OHS Alert, 21/10/14

Warning re asbestos in hospital service tunnels

Unions and lawyers are warning that hospitals across the country are riddled with asbestos.

A speech therapist employed at Sydney's Royal North Shore Hospital for three decades has contracted mesothelioma thought to be caused from asbestos-lined service tunnels under the hospital.

Another of Sydney's major hospitals, Westmead, in the city's booming western suburbs, closed its service tunnels earlier this year after asbestos in them was disturbed last year.

Source: ABC E-News, 4 Nov 2014

HSE survey shows shocking ignorance of asbestos risks

A new survey commissioned by the HSE in Britain and based on interviews with 500 tradespeople reveals that many are ignorant of the risks posed by asbestos. One of the headline findings was that 14 per cent of respondents believed that drinking a glass of water would help protect them from the deadly dust.

Twenty-seven per cent thought that opening a window would help keep them safe. Equally worrying, was that only 30 per cent were able to identify all the correct measures for safe asbestos work while 57 per cent made at least one potentially lethal mistake in trying to identify how to stay safe.

The findings raise serious concerns, especially in the light of the fact that tradespeople, including construction workers, carpenters and painters and decorators could come into contact with the deadly asbestos on average more than 10 times a year.

The HSE has launched a new safety campaign to improve preparations for dealing with asbestos which highlights the risks and easy measures people can take to protect themselves.

Source: Chemwatch, 27/10/14



Example of an old hospital service tunnel

Old asbestos dumps may be a sleeper issue

A Sydney occupational hygienist, Dr Peggy Trompf, experienced in dealing with contaminated sites and buildings, says that old forgotten asbestos dump sites may be the “sleeper issue” for future generations.

She warns that it is an issue that needs to be addressed especially with the popularity of urban renewal projects and the development of housing projects on former industrial sites.

Developers of one new housing project in Sydney discovered asbestos when the land was dug up and continued to find more and more asbestos as the development progressed.

In another typical example she cites, a former recreational area earmarked for development had an environment report done which identified hazardous materials including asbestos and lead.

Dr Trompf says that all workers in a wide range of occupations need to be trained in asbestos awareness to be ready for the unexpected.

Source: Sydney Morning Herald, 19/10/14, N O'Brien

Alert issued on importing building materials

The inadvertent use of asbestos-containing materials is likely to increase as employers turn to the internet to source cheaper materials, according to the ACT Work Safety Commissioner.

He called for construction companies to be more diligent when ordering building products after imported wall sheeting and a modular unit provided to a client by a builder were found to contain chrysotile asbestos. He reminded anyone ordering building materials from overseas to check that they complied with Australian safety standards.

Source: OHS Alert, 11 Nov 2014

Long term exposure to crystalline silica and the risk of heart disease mortality

A study published in the September 2014 edition of *Epidemiology* has concluded that low-level crystalline silica exposure was associated with increased mortality from heart disease, including pulmonary heart disease and ischemic heart failure, whereas high-level exposure mainly increased mortality from pulmonary heart disease. Current permissible exposure limits for crystalline silica in many countries may be insufficient to protect people from deaths due to heart disease.

The study investigated a cohort of 42,572 Chinese workers who were potentially exposed to crystalline silica and followed from 1960 to 2003.

Source: NCBI PubMed 21/10/14

Exposure standards and atmospheric monitoring

The Victorian WorkCover Authority has released a publication titled *Exposure Standards and Atmospheric Monitoring* which provides information on what employers need to do to ensure their employees are not exposed to an atmospheric concentration of a hazardous substance above the exposure standard (if any) for that hazardous substance or any of its ingredients.

The document explains what an exposure standard is, what atmospheric monitoring is and when it is required.

The document can be downloaded from www.vwa.vic.gov.au

Source: Victorian WorkCover Authority

Belgium gets nanomaterials register

Belgium legislation on placing on the market substances manufactured in nanoparticle form has been gazetted. The new law establishes a register of nanomaterials which the Belgian authorities are hoping will improve the traceability of nanomaterials-containing products and scientific knowledge about their potential toxicity.

Source: OHS Repts SafetyNet 300, 6 Nov 2014

NOISE

Key protein points way to new hearing therapies

Scientists have restored the hearing of mice, partly deafened by noise, using advanced tools to boost the production of a key protein in their ears by demonstrating the importance of the protein, called NT3, in maintaining communication between the ears and the brain.

These new findings pave the way for research in humans that could improve treatment of hearing loss caused by noise exposure and normal ageing.

Gabriel Corfas PhD who led the University of Michigan team says that his team will now explore the role of NT3 in human ears and seek drugs that might boost NT3 action or production.

Source: ScienceDaily 20 Oct 2014

LEGAL/ILLEGAL DRUGS

Fair Work Commission restores employer's right to conduct urine testing

A national employer has been given the go-ahead to conduct confirmatory urine tests for drugs and alcohol on workers who fail saliva tests, reversing a previous Fair Work Commissioner's earlier ruling.

The Full Bench determined that urine testing was an established part of DP World's drug and alcohol testing regime at all of its ports, and that no employees raised concerns about urine tests during consultations undertaken by the employer in developing the new policy.

Source: OHS Alert, 10/11/14

WORKERS' COMPENSATION

One-stop-shop for safety and workers' compensation in Queensland

A new streamlined safety and workers' compensation website is providing Queensland employers and workers with a single spot to access safety and workers' compensation information and services.

The website was designed using focus groups comprising employers, workers and safety professionals from all industries.

The result is a user-oriented site which provides the right answer as quickly as possible and removes the need to supply the same information to multiple government bodies. A combined online incident notification and claim form is also being produced that will further reduce duplication of effort for businesses.

Source: WorkCover Queensland, 4/11/14 www.worksafe.qld.gov.au

Work-related injuries: July 2013-June 2014

The Australian Bureau of Statistics has released some interesting statistics on the percentage of workers who experienced a workplace injury or disease in the year ending June 2014.

- the percentage of male employees who experienced a work-related injury or disease fell from 5.5% to 4.9%.
- the percentage of female employees who experienced a work related disease or injury fell from 5.1% to 3.6%.
- workers in the age group 50-54 years recorded the highest percentage followed by those in the 15-19 years age group.
- the group aged 65 years and over recorded the lowest percentage.

Source: ABS



CANCERS

US skin cancer costs sky-rocketing relative to other cancers

Skin cancer, the most commonly diagnosed cancer in the United States, is a major and growing public health problem with associated costs increasing five times as fast as treatments for other cancers.

The Surgeon General has called on communities to create more opportunities for sun protection in outdoor settings, for health providers to counsel patients on the importance of using sunscreen and for universities to discourage indoor tanning.

Source: CDC Media Release 10/11/14



Increased risk of lung cancer among bricklayers

In an article published in the International Journal of Cancer, bricklayers have been found to have an increased risk of developing lung cancer. The risk increases in proportion to the length of time spent working in the occupation.

The probable cause is considered to be their regular exposure to a 'cocktail of carcinogens' that provokes synergistic effects. Crystalline silica is of particular concern.

Source: OHS Repts SafetyNet 300, Nov 2014

VALE

Passing of renowned epidemiologist

Professor Tony McMichael who passed away in September was internationally recognised for his pioneering work in environmental health particularly in the areas of climate change and health.

His various positions held included:

- the United Nations Intergovernmental Panel on Climate Change
- Professor of Epidemiology at the London School of Hygiene and Tropical Medicine
- Head of the National Centre for Epidemiology and Population Health, ARU, Canberra

Major awards received:

- Officer of the Order of Australia
- Election to the UK Academy of Medical Sciences
- Election to the US National Academy of Sciences

Source: Image: The London School of Hygiene & Tropical Medicine





Occupational Health Society of Australia (WA)



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 WA
- 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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the work health and safety monitor



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