Healthwise

MONASH University

Study investigating the health of Alcoa employees
Western Australian Sites Newsletter 2021

THE UNIVERSITY OF WESTERN AUSTRALIA

About the Healthwise study

Healthwise is one of the largest and most comprehensive occupational health studies ever conducted in Australia. It investigates if there are any links between work and health outcomes amongst Alcoa Australia employees.

The study is run by independent researchers from Monash University and the University of Western Australia. Results of the study are reported to an Advisory Board, which consists of independent scientific advisors, and representatives from Alcoa and unions representing Alcoa employees

Why am I receiving this newsletter?

Previously Healthwise has communicated findings to Alcoa employees through face-to-face presentations at workplaces or via newsletters. As the study has been running for over 20 years many employees are now retired or are no longer working at Alcoa.

As a result, we are reaching out to both current and former employees through this newsletter to communicate the latest study findings.

What are the benefits?

The study benefits employees by providing knowledge of how workplace conditions can affect health. The results can be used, where indicated, to target improvements and modify how work is carried out. This potentially means a safer working environment.

If you have been part of the study, you have contributed to enhancing occupational health and safety at Alcoa and in the broader aluminium industry worldwide.

Should you have any further questions after reading this newsletter, please feel free to call or email the Healthwise study team via the details at the end of this newsletter.

We are trying to get in touch with as many former employees as possible.

Do you have contact with former workmates who have left Alcoa or retired?

We ask that you pass this newsletter onto them.

Healthwise Cancer and Mortality Study

This is an on-going study that monitors the long-term health of employees that produces updated results approximately every five years. This newsletter communicates the latest findings from the **Healthwise Cancer and Mortality Fourth Report** for employees at Western Australian sites.

The study examines the rates of cancer and death among past and present employees compared to the general population. It also compares the risks of cancer and death for employees undertaking different types of work and with differing levels of exposure. This allows the researchers to examine whether there are any increased risks associated with the different types of work being undertaken or with workplace exposures.

Healthwise Cancer and Mortality Study

Latest Findings for Western Australian Sites

Who is in the study?

Healthwise has previously conducted two large scale studies on the health of Alcoa employees, a cross-sectional study of respiratory health in 1995/1996, and a study which tracked the respiratory health of all new starters commencing at Western Australian mines and refineries between 1995 and 2000. These studies are complete, and the results have previously been communicated to employees through newsletters and on-site presentations.

If you participated in the Healthwise cross-sectional or new starter study, then you are also likely to be included in the long-term cancer and mortality study. Additionally, employees who left Alcoa prior to these studies commencing and who worked since 1983 for longer than three months are also included in the study. This means that the study covers the vast majority of employees at Western Australian sites between 1983 and 2000.

The locations in the study include the Kwinana, Pinjarra and Wagerup refineries, Jarrahdale, Huntly/Del Park and Willowdale mines and the Bunbury shipping terminal. The findings are relevant for both former and current Alcoa employees as they investigate if there are any long-term effects associated with working at Alcoa's Western Australian locations.

What did we study?

The **Healthwise Cancer and Mortality Fourth Report** examined the risk of cancer and death until the end of 2016. The study examined numerous common causes of death and types of cancer.

The workplace exposures investigated for mines and refineries were bauxite dust, alumina dust and caustic mist, which are the most common exposures in the workplace. The results include allowing for the known effects of smoking on health where appropriate.

Overall findings

- Male employees were at a lower risk of death overall when compared to the general Australian population and were also at a lower risk for all major causes of death, including deaths from cancer, circulatory, respiratory, digestive diseases and injury.
- Male employees were at a similar risk of developing cancer compared to the general Australian population.
- Female employees were also at a lower risk of death overall, and a similar risk of cancer compared to general population. No further results were available for females due to the small numbers of women in the study.

Detailed findings for male employees and mortality

- For male employees there was no evidence of an increased risk of death from circulatory disease, or more specifically ischaemic (coronary) heart disease, and workplace exposure to bauxite dust or alumina dust.
- Male employees at the mines and refineries had a lower risk of death from non-cancer respiratory disease which is a cause of death that is often of concern in occupational settings. There was no evidence of any increased risk with exposure to bauxite or alumina dust in the workplace. In previous Healthwise reports, there were indications of an increased risk of non-cancer respiratory disease death with exposure to bauxite dust, but with more data now available there was no longer any evidence of this and we can be more confident in our findings.

Healthwise Cancer and Mortality Study

Latest Findings for Western Australian Sites

Detailed findings for male employees and mortality (continued)

- Male employees at the mines and refineries had a lower risk of death from stroke compared to the general population. However, employees who were exposed to alumina dust had a higher risk of death from stroke when compared to employees who were not exposed. This finding has been reported previously by Healthwise and was thought to be due to unusually low death rates in those unexposed, but was still evident in the current report even with more data now available. We will continue to monitor this issue closely.

Detailed findings for male employees and cancer

- There was an increased risk of mesothelioma amongst male employees in Western Australia. Detailed independent case histories that were available show that most of these cases were most likely due to exposure outside of the Alcoa workplace, though a few cases were likely workplace related. Asbestos removal at the Western Australian refineries commenced in the early 1980s. Information from Alcoa is that while some asbestos containing materials remain at the refineries, they are subject to an asbestos management plan to minimise the risk of any asbestos exposure to the workers. There is no known asbestos exposure at the bauxite mines.

- Male employees had an increased risk of developing melanoma compared to the general Australian population. However, this increased risk was comparable to the local Western Australian population which has higher melanoma rates than the rest of Australia due to increased sun exposure. There was no increased risk of melanoma with any of the workplace exposures examined.

- Thyroid cancer was increased in mine and refinery employees overall compared to the general population, which is an unexplained finding that has been previously reported by the Healthwise study. The increased risk of thyroid cancer was found to be in office employees, who have minimal or no workplace exposures, and there was also no association with any of the workplace exposures examined being bauxite dust, alumina dust and caustic mist. We will continue to follow this issue, but at the moment there is little evidence of a connection with any area or type of work.

- Male office employees had an increased risk of prostate cancer when compared to the general population, and there was no association with exposure to bauxite or alumina dust. This is unlikely to be related to the workplace.

- There was an increased risk of lip cancer in production and maintenance employees during the first ten years of employment, but this was not related to workplace exposure to bauxite or alumina dust or caustic mist.

- For all other types of cancer, the risk for male employees at the mines and refineries was comparable to the general Australian population.

More information

The Healthwise study will continue to monitor the rates of cancer and death among employees into the future. If you have any questions, please feel free to contact the Healthwise Study Team at Monash University.

Free call number: 1800 062 534
Email: hwise@monash.edu
Website:
https://www.monash.edu/medicine/sphpm/coeh/researchprogram/healthwise

Healthwise Research Team

Monash University
Professor Malcolm Sim

University of Western Australia
Professor Nick de Klerk
Professor Bill Musk

Curtin University
Professor Lin Fritschi