

Canterbury

District Health Board

Te Poari Hauora o Waitaha

Community and Public Health

AMBERLEY TYRE FIRE – PUBLIC HEALTH Q&AS

How toxic was the smoke from the fire?

All smoke contains a large number of contaminants – many of which are toxic. For a short-duration fire such as this (i.e. less than 10 days), the primary concern is any inhalation of the smoke itself. As such, the initial public health advice from Canterbury DHB was to avoid contact with the smoke by staying indoors.

Community and Public Health's media release on Friday 29 January 2021 provided advice about exposure reduction and highlighted that sulphur dioxide was the primary contaminant of concern at that time.

Exposure to smoke has the potential to exacerbate existing respiratory conditions and can increase the risk of damage to the respiratory system.

Tyre fires produce smoke which can contain contaminants of particular concern, such as benzene and benzo(a)pyrene. These contaminants are potential carcinogens and the effects of exposure to them are experienced in the longer-term.

Because we don't know how much smoke any individual might have inhaled, we are working with experts in air quality to carry out a more comprehensive risk assessment of the range of possible health impacts. This risk assessment will also draw on the modelling of the dispersion of the smoke which is being carried out by Environment Canterbury.

We will make the results of this risk assessment available to the community when it is complete.

Potential health impacts will differ from one individual to another because different individuals have different exposure, and some people are more sensitive to air pollution than others (e.g. asthmatics). For this reason our current advice is for people to contact their GP if they have any health concerns.

Has the fire contaminated drinking water?

Water contamination is unlikely, given that the Fire Service did not use water to contain the fire and the bores which provide Amberley's water supply draw from more than 100 metres below ground. However, sampling from these bores has been undertaken by the Hurunui District Council as a precaution.

These water samples are being tested for a range of contaminants, including metals such as chromium, cadmium and lead, and petroleum hydrocarbons. In addition to this specific sampling, the Council are also carrying out real time monitoring of turbidity (water clarity) at the bores which can warn of potential contamination.

Environment Canterbury has also carried out sampling of residents' private bores to check for a range of contaminants.

What about when the fire was smouldering – and what is the general public advice when there is a large, smoky fire?

Monitoring data from sites near the fire indicated that PM 2.5 (very small particulates, small enough to be inhaled deep into the lungs) levels were below health alert guidelines. This does not, however, mean that contaminants are not present and it is best to avoid exposure wherever possible. If you see or smell smoke in significant quantities outside, you should stay inside - providing it's safe to do so.

Remember to:

- Keep your windows and doors shut
- Switch your air conditioning to 'recirculate'
- Air out your house when the smoke clears
- Keep an eye on children, older people, and others at risk in case they show signs of ill-effects from smoke
- Keep pets inside with clean water and food. Keep pets' bedding inside if possible.

What can I do now to protect my health?

Precautionary advice for nearby residents who may have had ash on their property from the smoke is as follows:

- Rinse vegetables and produce before eating.
- Disconnect rainwater tanks and reconnect after rainfall or hosing of the roof.
- If rainwater tanks used for drinking-water were not disconnected during the fire – clean, flush and refill.

What do I do if I'm feeling anxious or worried about my health or my family's health?

While the risk from the fire is elevated, individual risk is dependent on a variety of factors including;

- Contaminants contained in the fire
- Duration of exposure
- Pre-existing health vulnerability

You can call your own general practice team 24/7 for care around the clock. If you aren't already enrolled with a general practice team use our handy [general practice finder map](#).

If you're feeling anxious or just need someone to talk to you can call or text 1737 any time and you can speak to (or text) a trained counsellor free of charge.

What modelling and assessments have already been done or are planned?

Canterbury DHB, Environment Canterbury and Hurunui District Council are all carrying out various regimes of monitoring, modelling and risk assessment, based on the information available.

Canterbury DHB is reviewing the air quality data provided by Environment Canterbury's monitoring and will review the results of dispersion modelling when it is available and incorporate them into a more comprehensive assessment of health risk.

Canterbury DHB is reviewing the results of drinking water samples taken by Environment Canterbury and Hurunui District Council and will, working with them, advise residents if any samples indicate contamination and what they should do.

Canterbury DHB will review management and remediation plans for decontaminating the site of the fire, including heavy metal contamination of the soil in the immediate area.