

Dioxins in Our Food Supply and Their Effect on Human Health

What are dioxins? Why are they important?

Dioxins are environmental contaminants released into the air from combustion processes, that remain in the environment for many years. They are highly toxic chemical compounds harmful to human health.

Where do dioxins come from?

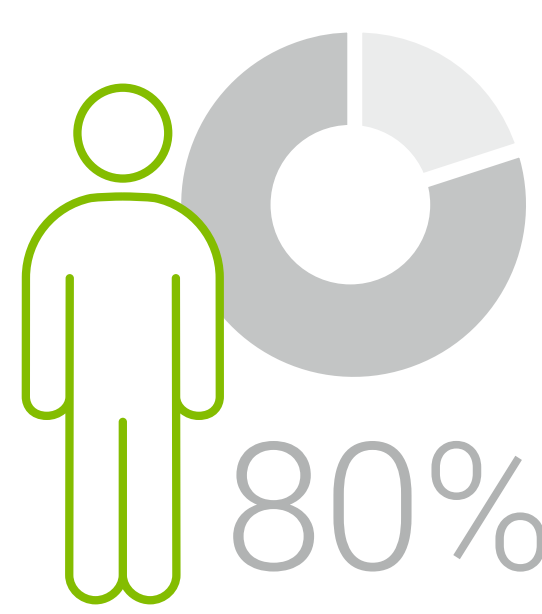
Dioxins are released into the air from combustion processes¹

Natural

VS

Man-made

How are humans exposed to dioxins?



Dioxins accumulate in the food chain²

Human exposure is from the food of animal origin²

What is the impact of dioxins on human health?

Scientists and health experts are concerned about dioxins because exposure may result in a variety of adverse health effects.³

What measures are being taken to monitor and reduce dioxins?

Strict regulations are in place regarding food samples testing to detect dioxins (at very low levels).⁴



There is a need for greater testing capacity in control labs because of increasingly global nature of the food supply chain, and especially when a crisis occurs.⁵⁻⁸ For example:



2003

Animal Feed

2008

Irish Pork

2008

Buffalo Milk

2011

Meat and Eggs

2013

Chicken Eggs

How are dioxins monitored and analyzed?

Government regulatory bodies worldwide are increasingly more concerned about dioxins in our food, and are strictly monitoring specific foods with the goal of identifying ways to reduce dietary exposure.⁹

Sampling and Analysis

Field Staff

Trace-back Investigations

Research

Technology solutions for the detection and analysis of dioxins
Because dioxin analysis is costly and time-consuming, there is an increasing need for technology solutions. Agilent has technology solutions for the detection and analysis of dioxins.

Food Testing

Greater Testing Capacity

GC/MS/MS Technology

To learn more about Agilent solutions visit:

www.agilent.com/en/solutions/food-testing-agriculture/persistent-organic-pollutants/dioxins-dioxin-like-compounds

Sources:

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