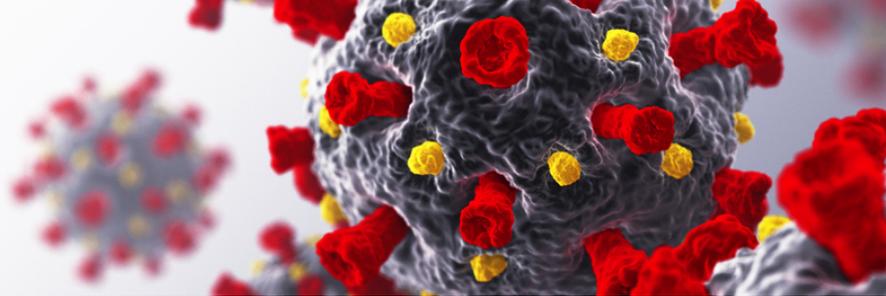


FACTsheet

Toxics and Coronavirus



Linking Toxic Exposure, Diabetes, Obesity, and Coronavirus

Summary

The coronavirus pandemic is a global challenge that affects everything we do. Across our country and around the globe, people and governments are taking important steps to contain the virus and protect our health.

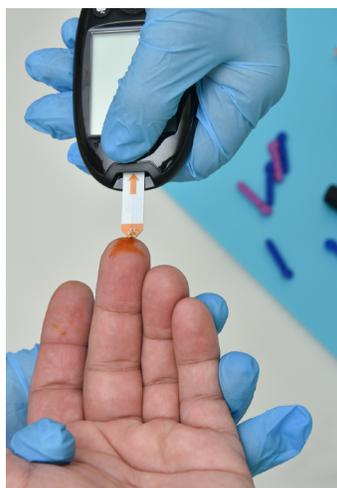
We have the opportunity to add to these actions by reducing our exposures to hormone disrupting chemicals that can make us more vulnerable to the virus. As scientists have studied the pandemic, they have documented that people with diabetes and/or obesity are more likely to be made severely ill by the virus. The prevalence of both diabetes and obesity has been linked to exposures to common hormone disrupting chemicals. When we purchase and use products free from these chemicals at workplaces, schools, and homes we are positioned for a healthier future.

As the coronavirus pandemic sweeps around the globe, the tragedies of sickness, death, job loss, and poverty are on all of our minds. For most of us, it's also confronting a confusing unknown: the disease seems unpredictable. Some people have mild symptoms and others suffer severe illness.¹

According to the Centers for Disease Control and Prevention, older adults and people with underlying medical conditions may be at higher risk for severe illness. Two of those underlying conditions are diabetes and obesity.² For example, medical professionals from across the US reported that in March, 2020 almost half of the people hospitalized with COVID-19 were obese, and more than a quarter of them had diabetes.³

This factsheet is a brief summary of the research linking obesity and diabetes with toxic exposures. The risk of developing both diabetes and obesity has been linked to exposures to hormone disrupting chemicals, sometimes called EDCs. Understanding this link provides ideas about how schools, businesses, and families can help protect themselves from the severe consequences of coronavirus infection.

Diabetes



Researchers studying links between toxic exposure and diabetes have focused on hormone-disrupting chemicals that cause insulin resistance. Insulin is a hormone that “acts like a key to let blood sugar into cells for use as energy.” When cells become insulin resistant, that key no longer works and blood sugar increases to damaging levels, causing diabetes.⁴ Hormone-disrupting chemicals linked to diabetes include bisphenol A (BPA), arsenic, and phthalates.⁵

Links between diabetes and PFAS (“forever” chemicals) are of special concern because this group of chemicals is found in almost everyone. A recent study found that PFAS exposure in US nurses was associated with increased incidence of diabetes.⁶

Obesity

A variety of hormone-disrupting chemicals are known to influence the formation of fat cells and/or energy balance. This helps explain why obesity has increased in the US since 1988, even when calories eaten and energy expended stay the same.⁷ Hormone-disrupting chemicals linked to obesity include BPA, phthalates, and pesticides.⁵

As with diabetes, PFAS are of special concern. Recent research showed that PFAS can disrupt our energy balance. People with the highest blood levels of PFAS utilized fewer calories, turning more into fat, and regained weight faster after dieting.⁷



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Conclusion

Responding to a pandemic is challenging and requires multiple strategies, including comprehensive medical care, adequate testing capacity, maintaining social distancing and handwashing, use of face masks, and more. To this list can be added reducing exposures to hormone disrupting chemicals that increase our vulnerability to coronavirus disease. One way to reduce exposure is to purchase and use furniture, flooring, foodware, and other items made without hormone-disrupting chemicals.

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