

Common disinfectant wipes expose people to dangerous chemicals, research reveals

Level 2: Intermediate

1 Warmer

a. In pairs or groups, discuss these questions.

1. How often do you use disinfectant products at home?
2. Has this changed since the start of the pandemic?
3. Do you think these products are helpful or harmful? Why?

2 Key words

a. Choose the correct word to match the definitions below. Then find and highlight the words in the article to read them in context.

1. someone who buys and uses products and services

a. effective	b. evidence	c. consumer	d. alternative
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2. poisonous and harmful to people, animals, or the environment

a. toxic	b. effective	c. risk	d. benefit
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3. fail to protect someone or something from something harmful or dangerous

a. resist	b. contribute	c. evidence	d. expose
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4. say that something is true, even though there is no definite proof

a. risk	b. claim	c. toxic	d. consumer
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5. be one of the things that help to make something happen

a. contribute	b. toxic	c. benefit	d. alternative
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6. not be affected or harmed by something

a. detectable	b. resist	c. effective	d. expose
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7. describes something that works well

a. effective	b. alternative	c. claim	d. contribute
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8. able to be noticed or observed

a. resist	b. risk	c. detectable	d. claim
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9. the possibility that something unpleasant or dangerous might happen
a. evidence b. claim c. resist d. risk
10. facts or physical signs that help to prove something
a. detectable b. evidence c. alternative d. effective
11. an advantage you get from a situation
a. benefit b. alternative c. contribute d. risk
12. something that you can choose instead of something else
a. consumer b. effective c. alternative d. contribute

b. Use some of the key words from task A to complete these sentences. You may have to change the form of the word.

1. This cleaning product _____ to kill germs and smell great.
2. When making a big decision, it's important to think about both sides – the _____ and _____.
3. If you think you've been _____ to the virus, please stay home.
4. Diet and exercise are two things that _____ to your health.
5. There is a lot of _____ that shows the vaccine works well.
6. Washing your hands with soap and water is an _____ way to kill germs.
7. When it's freezing outside, it is dangerous to _____ your skin.
8. Harmful chemicals can be _____ to animals and humans.

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Tom Perkins

11 May, 2023

- 1 Since the beginning of the pandemic, the global use of disinfectants has gone through the roof. Clorox increased production of its wipe packs to 1.5m a day by mid-2021, and 83% of consumers surveyed around the same time said they had used a disinfectant wipe in the last week.
- 2 As schools reopened, a group of toxic chemical researchers became concerned as they heard reports of kids regularly using disinfectant wipes on their desks or teachers running disinfectant machines.
- 3 The researchers knew the disinfectants did little to protect consumers from Covid. Instead, they exposed kids to worrying levels of a dangerous chemical group – quaternary ammonium compounds, also known as QACs, or “quats”.
- 4 Quats are commonly found in disinfectant wipes and sprays, especially those that claim to “kill 99.9% of germs”. But in a new research paper, the scientists’ conclusions point to several main issues: the chemicals are linked to serious health problems, they contribute to diseases that can resist antibiotics, they pollute the environment, and they are not very effective.
- 5 “We did the review to answer the question of ‘What do we really know?’ and what was most surprising was the lack of data on the issues in the majority of QACs, and the few that have been studied have red flags,” Carignan added.
- 6 QACs are a class of hundreds of chemicals also used in paints, hand sanitisers, personal-care products and more. Among other health issues, recent research has linked them to problems with pregnancy, infant development, breathing, skin health and more.
- 7 Most Americans have some of these chemicals in their blood. Recent research checked more than 200 Indiana residents before and after the pandemic and found quat levels roughly doubled. While about 83% had detectable levels before the pandemic, 97% did after.
- 8 Humans can end up with quats in their bodies in several ways: through the skin, the mouth after touching a disinfectant wipe, or when they stick around on surfaces. Breathing the chemicals in is also a risk.
- 9 Among the groups most at risk are small children because the wipes are often used in nurseries or schools, older people in care homes, healthcare workers, cleaning professionals and others who frequently use disinfectants.
- 10 The chemicals don’t leave the human body easily and are thought to build up in both human bodies and the environment. Quats are toxic to fish, and “a substantial body of evidence” suggests they probably help to create superbugs, which can resist antibiotics, the paper states.
- 11 Disinfection with quats often has only a small benefit over plain soap and water, research suggests, and neither is thought to be needed to stop Covid from spreading, which happens through the air.
- 12 “Disinfectant will get rid of more germs, but there’s a question of ‘How much more?’” Carignan said.
- 13 Soap-and-water is safest for general cleaning, she added, and some resources offer alternatives to harsh cleaners. Carignan said that disinfectants should generally be saved for when someone has stomach flu or other illnesses, and even then, they should not be used carelessly.
- 14 The paper calls for better consumer protection. Labelling is not required on all products. For example, they do not need to be included on paint labels and are only sometimes listed on disinfectant labels, Carignan said.
- 15 The paper asks for more clarity around the chemicals, including more research on quats’ health effects, better labelling and ending non-essential uses. The study states that these chemicals should only be used when necessary and when no safer alternative exists.

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3 Comprehension check

a. Answer the questions using information from the article.

1. How many wipe packs did Clorox make in mid-2021?
2. What is the dangerous chemical group talked about in the article?
3. What are three kinds of products that contain these chemicals?
4. What is one of the health issues they're linked to?
5. What is the primary way people are exposed to them?
6. After the pandemic, what percentage of Indiana residents had these chemicals in their blood?
7. What are three ways the chemical can end up in people's bodies?
8. Which groups of people are most at risk?
9. What is the safest thing to use for general cleaning?
10. What does the paper ask for to protect consumers?

4 Key language

a. Match each adverb from the article with its meaning.

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|-------------------------|--|
| 1. regularly | a. very often, usually |
| 2. commonly, frequently | b. happening at a regular time |
| 3. especially | c. used in most instances or by most people |
| 4. roughly | d. something likely to be true |
| 5. probably | e. done without thought, so mistakes or damages happen |
| 6. generally | f. for a particular purpose or person |
| 7. carelessly | g. approximately, not exact |

b. Write personalised sentences using four of the adverbs above.

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5 Discussion

a. Discuss these statements.

- “Disinfectants can be harmful, but we should still use them to protect us from germs and bacteria.”
- “All products with quats must be labelled for consumers.”
- “When you use disinfectant wipes, you clean and kill germs and bacteria simultaneously.”

6 In your own words

- a. Use an internet search engine to find more information about products that contain QACs or quats. What benefits do they say about their products? What risks do they mention? Do you think these messages are clear for consumers? Why or why not?
- b. Report your findings to the class and share your opinion on the issue.