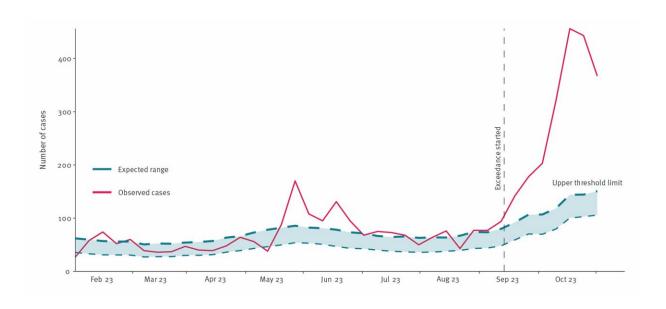


Infections from a diarrhea-causing parasite are on the rise in the UK, but experts aren't quite sure why

November 1 2023, by Paul Hunter



Laboratory notifications of Cryptosporidium species in England, Wales and Northern Ireland, by week of specimen, 2023. Credit: *Eurosurveillance* (2023). DOI: 10.2807/1560-7917.ES.2023.28.43.2300538

Infections from a parasite which can cause long-lasting, severe diarrhea has seen an "unprecedented and ongoing" surge across the UK. This increase in infections has been ongoing since mid-August.

Almost 500 cases of cryptosporidiosis in a week were reported at the



end of September alone—five times more than the expected number for that time of year.

And this may just be the tip of the iceberg, as only about <u>one-eighth of infections</u> are ever reported.

While cases have started to fall, they're still well above expected numbers. And the reasons why cases are so high this year is still unknown.

What is crypto?

Cryptosporidiosis (sometimes called <u>crypto</u>) is caused by the Cryptosporidium parasite.

There are several species of Cryptosporidium, most of which only rarely (if ever) <u>cause disease in humans</u>. There are two species which cause infections in humans: C parvum and C hominis.

C hominis almost exclusively causes <u>infections in humans</u> while C parvum causes infections in many different mammals—<u>most typically cattle</u>. But there is a subgroup of C parvum that has <u>recently evolved</u> into a form that generally only infects humans.

The main symptom of crypto is watery diarrhea that can be accompanied by stomach cramps, dehydration, vomiting, fever or weight loss. Infections last about ten days on average, which is much longer than what you'd see with <u>other infections</u>, such as Salmonella or Campylobacter.

Crypto predominantly affects children, typically those of <u>pre-school age</u>. Children are most at risk due to their lack of immunity.



How do you contract it?

Outbreaks have also been associated with <u>farm visits</u>, children's <u>day care</u> <u>centers</u> and even <u>swimming pools</u>.

Most people recover from crypto without needing treatment. But sometimes crypto can cause <u>severe disease</u>, leading to weight loss and dehydration. Infections from the <u>C hominis strain</u> in particular can sometimes lead to long-term diarrhea, irritable bowel syndrome, weight loss and fatigue.

People who are <u>severely immune compromised</u>—such as those with HIV/Aids or <u>blood cancer</u>—are also at greater risk of severe and potentially fatal infections.

There's no vaccine against cryptosporidiosis. If you do catch crypto, make sure to drink plenty of water to replace lost fluids. People with more severe infections or people who are immunocompromised may be prescribed anti-parasitic drugs. While these <u>don't always work</u>, they may help reduce the duration of symptoms.

What is behind the current outbreak?

The causes of the current surge in Cryptosporidium infections in the UK isn't clear.



Prior to the pandemic, infections would be expected to rise in <u>late</u> <u>summer and early autumn</u> each year. But this year, the surge is especially large. Infections have surged in <u>most parts of the UK</u>, indicating it's probably not due to a localized outbreak.

One <u>explanation</u> is that this surge is due to increased exposure.

About two-thirds of recently reported C hominis cases have been linked to overseas travel—mainly Spain. Around 80% of these C hominis cases reported swimming in the 14 days before becoming unwell.

In Spain, the towns of Tarazona and Zaragoza have both reported <u>large</u> <u>waterborne outbreaks</u> of crypto during late summer. But whether an outbreak in a part of Spain well away from the Mediterranean beaches most tourists head for could explain this surge is doubtful.

This also doesn't account for some of the cases of crypto currently being reported, as foreign travel and swimming were much less frequent in recorded C parvum cases.

Another plausible explanation for this current wave is that our immunity to crypto has fallen as a result of COVID control measures. This means the parasite is able to infect more people than would normally be the case.

This would make sense, as lack of immunity was implicated in the high numbers of viral infections seen last year. Not to mention C hominis infections almost disappeared during the <u>first two years of the pandemic</u> due to COVID restrictions. C parvum infections also fell—but mainly only for the first few months after restrictions were introduced.

But if reduced immunity was the only explanation, then we'd expect to see increased case numbers elsewhere in Europe. Unfortunately, crypto



infections are <u>inconsistently reported across Europe</u> making comparisons difficult. But among the UK's neighbors, Ireland has certainly seen <u>more cases this year</u> than typical—even from pre-COVID years.

I suspect the explanation for the outbreak is a combination of the two. Reduced population immunity following a couple of years with very few infections led to increased <u>infection</u> rates. This then led to increased contamination of swimming pools—leading to yet more infections.

How can you protect yourself?

Although most infections in the current wave have been contracted while swimming, I wouldn't encourage people to avoid swimming to protect themselves—not unless they have severe problems with immunity. But do try to avoid swallowing water while swimming.

If another bather has an accident in the pool, be sure to get out promptly to avoid swallowing water. Likewise, if you're suffering from diarrhea you should avoid swimming to protect other swimmers.

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