

**ANSWERS TO Q&A SUBMITTED DURING SEPT. 23 WEBINAR, LATEST
GUIDANCE ON COVID-19 and CELIAC DISEASE**

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Are current COVID-19 tests accurate? Is the long swab (vs short nasal swab) more/less accurate?

There are two main ways to be tested for COVID-19. One is the test that looks for RNA for the virus. The other looks for the antigens that the virus makes. Both require a nasal swab to collect the sample. The gold standard is a nasal pharyngeal swab that goes into the back of the nose. This will capture most people who are infected. These are thought to be more sensitive than the antigen testing, which can come with a higher rate of false negative testing. However, any testing is better than no testing, so please get whatever test is available to you if you believe you have been exposed.

Are people with autoimmune diseases like celiac disease more likely to get COVID-19?

A study conducted in Italy that was published in July 2020 found no difference in the likelihood of contracting COVID-19 between people with or without an autoimmune disease.

Does celiac disease make a person more likely to get severe COVID-19?

There are a lot of unanswered questions still. There have been three surveys looking at this. The survey in Italy found no patients with celiac disease and COVID-19. The same was true for patients surveyed with refractory celiac disease in Italy. The survey in the United States did identify patients with celiac disease and COVID-19, but they found that none of the patients surveyed developed severe disease that required hospitalization.

Please explain how long antibodies to COVID-19 will protect a person from getting the virus?

This is a question that is not easily answered, given the limited duration of the epidemic so far. There have already been some reports of SARS-CoV-2 reinfection, which suggests that even natural immune responses do not fully protect against re-infection. However, experiences from non-pathogenic coronaviruses suggest that even if the immune response does not fully protect against re-infection, that hopefully the re-infection will be attenuated and result in a far milder disease.

Can you give us guidance on the vaccines being developed for COVID-19? Is it one dose or will we need multiple doses? Annually?

Right now, we have far more questions than answers. Many labs are sequencing the virus to see how it changes over time. It's actually far less diverse of a virus than the flu, for example. If the diversity stays small, this is a good thing because it means we can have a vaccine that is effective for all of the different strains of the virus, which would mean we don't need an annual vaccine. However, it's still too early to know for sure.

How will the doses of vaccines be distributed once available?

We believe it will be available first for those who are at higher risk of contracting the disease in addition to health care workers.

We know certain people with celiac disease don't respond to Hepatitis-B vaccine well. Should we be concerned that people with celiac disease will not respond with the COVID-19 vaccine as well?

Yes, this is a major worry that we have. However, not all viruses are created equal, so it's hard to compare these two viruses. The good news is that we don't see this with all vaccines, but it is still something to keep in mind. If we have a safe and effective vaccine, people with celiac disease should get the vaccine, and then we can answer this question down the road.

Being affected by a systemic autoimmune disease, what can I do to lower my risk of getting COVID-19?

We should all be wearing masks and practicing social distancing and proper hand hygiene.

Should patients with celiac disease do anything in addition to mask wearing and social distancing [and hand hygiene] to protect themselves from COVID-19?

Minimize stress, sleep and eat well, and stick to the gluten-free diet.

Can COVID-19 present with any GI symptoms?

Yes. A study conducted in California found that gastrointestinal symptoms were reported in 31.9% of patients, though 89.2% of these individuals reported the GI symptoms as mild. The most common symptoms were loss of appetite (22.3%), nausea/vomiting (12%) and diarrhea (12%). None of the patients reported their GI symptoms to be their only symptom of COVID-19, and most patients reported the GI symptoms as lasting only one day, which was significantly shorter than the reported respiratory symptoms. It's important to note that all patients with GI symptoms had other symptoms as well.

If main symptoms of a gluten exposure are vomiting or diarrhea, how do we differentiate if the symptoms are from a gluten exposure or possibly COVID?

This is a very difficult question to answer, as most patients with COVID-19 have reported mild GI symptoms that last a short period of time, so this is not easily distinguishable from a gluten exposure from cross-contact. Pay attention to other symptoms that may indicate COVID-19 like loss of taste/smell, respiratory issues, sore throat, fever, etc.

If someone has celiac disease and they develop GI symptoms, and they aren't sure if they were exposed to gluten. What should they do? Who should they contact?

First and foremost, contact your primary care provider or pediatrician and gastroenterologist if you have one. If there is any suspicion of exposure to COVID-19, you should be tested. It's also important to look for other symptoms as most people with COVID-19 have other symptoms in addition to the GI symptoms.

Is COVID-19 rare in children with celiac disease?

Kids, just like adults, can be infected with COVID-19. Most of the time however, the symptoms are milder. But, not only are kids equally exposed, the viral load can be as high, if not higher, than adults with severe COVID-19 that requires hospitalization. Kids show the same racial disparities as seen in adults. Clinically, you cannot distinguish a child with COVID-19 with a runny nose or with simple allergies or a cold. A very high fever or rash seem to be the only distinguishable factors for kids who develop MIS-C.

Is there a certain type of mask that is best to wear to protect against COVID-19?

Wearing any mask is better than nothing at all. Data on how thick and what the best material is still is not as good as we would like. A double or triple layer mask offers more protection than a single layer mask. However, masks with valves are not recommended because they only protect the person wearing the mask and not others around them.

What about face shields or goggles? When should they be used in addition to the masks?

Face shields and goggles should not replace a mask. It appears that masks are more effective at preventing spread. In healthcare settings, we are instructed to wear both. The reason is because we get very close to patients, so we worry about droplets getting onto the face and we want to prevent this from occurring.

Can COVID-19 trigger celiac disease in someone who is genetically susceptible?

This is a very interesting question that we don't have the answer to yet because it hasn't been long enough. It will be interesting to see what happens down the road.

Does reduced spleen function in a portion of celiac disease patients impact their susceptibility to COVID-19?

According to our current limited data, it appears that those celiac patients presenting with reduced spleen function do not have any increased risk in contracting COVID-19 infection. However, we need more studies on this topic to definitively state that hyposplenism does not carry any risk for COVID-19 infection susceptibility.

Can stress and anxiety about getting a potentially deadly virus (COVID-19) cause symptoms that we might confuse as a gluten exposure?

Most definitively yes. Stress can manifest itself in many ways, including (and quite often) with gastrointestinal symptoms, like abdominal cramps, irregular bowel movements and abdominal pain. These are also symptoms frequently experienced by people with celiac disease, both at the onset or when cross-contaminated, once on a gluten-free diet. While we do not know for sure why stressors, like the fear of being infected by a deadly virus, translate into gastrointestinal symptoms, it is likely that the gut-brain axis is at play in transducing states of mind into gastrointestinal symptoms as a clinical presentation.

For more information visit:

Patients:

<https://www.massgeneral.org/news/coronavirus/tips-for-navigating-covid-19-video>

<https://www.massgeneral.org/news/coronavirus/>

<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Healthcare Providers: <https://www.idsociety.org/covid-19-real-time-learning-network/>