

Your Blood Type and the Risk of COVID-19: Studies Show Type A Is More Susceptible than Type O

July 29 2020 9:45 AM



Since March, much has been discovered about COVID-19. People with underlying health problems, for example, including heart problems, diabetes and obesity, for example, have shown a greater risk for becoming seriously ill from COVID-19.

Statistics show men are more likely to get COVID-19 than women, and now there's evidence that shows blood type could also play a factor in how seriously ill someone infected with the virus may become.

According to the New England Journal of Medicine, a study compiled data from 1,600 patients hospitalized with severe cases of COVID-19 in Italy and Spain and compared them to 2,200 other people who didn't have the disease. Researchers determined that people with Type A blood had a 45 percent increased risk of having a severe case of COVID-19, compared to a 35 percent lower risk of being seriously ill for people with Type O blood. An independent study in China showed similar results.

"What we're seeing is that blood Type A individuals definitely are more susceptible to COVID than Type O individuals, but it's not necessarily something to worry about if you're blood Type A, and it's not something to celebrate and lose your concentration and precautions if you're Type O," said Chuck Brackett, director of laboratory services, OSF HealthCare Saint Anthony Medical Center. "That's just another factor that can determine whether or not you acquire COVID. And it may not be a big factor, but it's a factor."

It's not known what the connection is between blood type and COVID-19. The researchers from the New England Journal of Medicine wrote that it's possible that different combinations of A and B antigens change the immune system's production of infection-fighting antibodies.

"I think this is another tool in your arsenal," said Chuck Brackett, director of laboratory services, OSF HealthCare Saint Anthony Medical Center, Rockford. "If you know your blood type, I'm Type A, for example, so I would be at a higher risk for acquiring COVID than someone who is Type O. Now I'm glad to know that. It's good to know that. Does it make me feel like I'm going to get it the minute I walk out the door, no. And I think the studies indicate that, that it's not necessarily that way."

"Now if I'm Type O does that mean I can go out into a crowd and not wear a mask, absolutely not, because the thing we have to remember is every single blood type has had COVID disease," said Chuck Brackett, director of laboratory services, OSF HealthCare Saint Anthony Medical Center, Rockford. "And every single blood type has had severe COVID disease."

A blood type (also known as a blood group) is a classification of blood based on the presence and absence of antibodies and inherited antigenic substances on the surface of red blood cells (RBCs).

There are four main blood types: Type A, Type O, Type B and Type AB. In addition to your AB type there is also your RH type and that's where you hear the positive and negative – A positive, A negative which refers to whether you have the RH antigen, so there are eight blood types if you count the positive and negative. Type O is the most positive, followed by Type A.

Blood type is inherited from your parents through your ABO genes, but then it's expressed on your red cells through an antigen. For example, if you have the A antigen you're Type A, if you have the B antigen you're Type B, if you lack both of those you're Type O and if you have both you're an AB.

“It's nice to know your blood type, although it's not really required to know that, a lot of patients do know their blood type, which helps to be an informed patient and an informed blood donor but the blood bank types every patient with a blood sample and perform that typing whether they know that information or not,” said Amy Marchetti, clinical laboratory scientist, OSF HealthCare.

While not necessary, it's not a bad idea to know your blood type. Not only does it help during an emergency, it helps in planning a healthy pregnancy, and it could be important when donating blood, especially for rare types. The easiest way to determine your blood type is to ask your physician, who can order the test along with routine lab work.

“Another good reason to know your blood type is so you can answer the call to your community if there is a need for a certain blood type,” said Amy Marchetti, clinical laboratory scientist, OSF HealthCare. “Better than that if you are a regular blood donor and you can prevent some of the blood shortages that occur.”